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SUMMARY, CONTEXT MATERIALS AND RECOMMENDATIONS AFFORDABLE HOUSING NEXUS STUDIES

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City of Campbell

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I. INTRODUCTION

This Summary, Context Materials, and Recommendations report ("Summary Report") provides a concise version of the affordable housing nexus studies prepared by KMA and presents analyses designed to provide context for policy decisions. It also outlines recommendations for the City of Campbell regarding updates to the City's affordable housing requirements for residential development and consideration of a potential new affordable housing impact fee for non-residential development.

The report has been prepared by Keyser Marston Associates, Inc. (KMA) for the City of Campbell, pursuant to contracts both parties have with the Silicon Valley Community Foundation. The report was prepared as part of a coordinated work program for twelve jurisdictions in Alameda and Santa Clara Counties. Silicon Valley Community Foundation with Baird + Driskell Community Planners organized and facilitated this multi-jurisdiction effort. Silicon Valley Community Foundation, which engaged KMA to prepare the analyses, serves as the main contracting entity with each participating jurisdiction, and has provided funding support for coordination and administration of the effort.

Two separate nexus technical reports are attached to this Summary Report, Attachment A: Residential Nexus Analysis and Attachment B: Non-Residential Nexus Analysis. The two nexus reports provide the technical analyses and documentation to support adoption of affordable housing impact fees on residential and non-residential development in the City of Campbell.

A. Background and Context

The City of Campbell has an existing inclusionary housing policy requiring residential projects in the City to include a 15% share of units as affordable. The City of Campbell's Affordable Housing Ordinance was adopted in 2006 and incorporated in Code Section 21.24. The Ordinance applies to projects with ten or more units. An in lieu fee alternative of $34.50 per square is available only to projects at a density of six units per acre or less. Since the 2009 *Palmer* court decision (described further in the Residential Nexus Analysis), the City has not had the ability to apply its inclusionary requirements to rental projects. The analyses summarized in this report will enable the City to consider adoption of an affordable housing impact fee applicable to rental apartments and other updates to its affordable housing requirements for residential development.

The City currently does not have an affordable housing requirement that applies to non-residential projects; however, the analyses that have been prepared for the City will enable consideration of a new affordable housing impact fee applicable to non-residential development in the City as well.

Implementation Options for Rental and Ownership Affordable Housing Requirements

For rental projects, following the 2009 *Palmer* decision, impact fees supported by a nexus analysis are the only mechanism available to California jurisdictions to implement an affordable housing requirement. A bill pending in the California Legislature, Assembly Bill 2502, referred to as the "Palmer Fix" would, if adopted, restore the ability of California cities to apply inclusionary requirements to rental projects.

For ownership projects, jurisdictions have a choice on whether to implement affordable housing requirements through an inclusionary housing program, as Campbell currently does, or through impact fees. Inclusionary requirements are land use regulations that require a percentage of units in new residential projects to be made affordable[1]. An in-lieu fee option is sometimes made available as an alternative to providing units on-site within a project. Depending on how the in-lieu fee option is structured, it may be rarely used, used mainly for higher-value projects where it is costlier to deliver affordable units on-site, or it may serve as the "default" option that most projects select. Impact fees, on the other hand, are fees required as mitigation for the affordable housing impacts of new residential development. Impact fees must be supported by a nexus study, such as the one that has been prepared for Campbell. With an impact fee program, alternatives may be offered but fee payment is the default.

On-site affordable requirements have the advantage of delivering affordable units concurrently with market rate units. On site units are integrated within projects and generally result in affordable units dispersed throughout the community. The cost of monitoring and enforcement of affordability covenants for below market rate units is sometimes cited as a disadvantage. Fees (either in-lieu or impact) have the advantage that they can be used to assist stand-alone affordable projects, leveraging tax credits and other financing sources in the process, to produce affordable units, often at a deeper level of affordability than the low and moderate income units usually delivered through an on-site requirement. Monitoring and enforcement of covenants is generally the responsibility of a non-profit partner. Fees are permitted for use in funding administrative expenses but should be directly related to increasing the supply of affordable housing and held to a modest percentage of revenue. A disadvantage of fees is that it can take time to accumulate sufficient funds to complete an affordable project, creating a time lag between completion of market rate units that pay fees and delivery of affordable units. Some communities also face challenges in identifying and acquiring suitable sites for stand-alone all affordable projects, a challenge avoided with an on-site requirement.

[1] The recent California Supreme Court case referred to as the "San Jose case" (California Building Industry Association v. City of San Jose, California Supreme Court Case No. S212072, June 15, 2015) affirmed that inclusionary requirements are land use regulations, not "exactions." See Residential Nexus Report for additional discussion.

B. Organization of this Report

This report is organized into the following sections:

- Section I provides an introduction;
- Section II presents a summary of KMA's findings and recommendations;
- Section III summarizes the nexus analyses;
- Section IV presents analyses and materials prepared to provide context for policy decisions, including:

    A. Multifamily Apartment Financial Feasibility Analysis – presents the analysis and findings of the real estate financial feasibility analysis for apartments;

    B. On-site compliance cost analysis – analysis of the forgone revenue experienced by market rate residential projects in complying with the City's inclusionary requirements;

    C. Residential affordable housing requirements in other jurisdictions – provides a summary of existing inclusionary and impact fee requirements for 18 jurisdictions in Alameda and Santa Clara counties;

    D. Non-Residential Development Costs - Analysis of development costs for various types of non-residential development as context for consideration of potential impact fee levels for non-residential development; and

    E. Jobs housing linkage fee programs in other jurisdictions – provides information regarding 34 adopted linkage fee programs in jurisdictions throughout the Bay Area and elsewhere in California.

II. SUMMARY OF FINDINGS AND RECOMMENDATIONS

In this section, KMA provides a summary of the analysis findings and recommendations for the City's consideration for updates to the City's affordable housing requirements applicable to residential and non-residential development. Recommendations reflect consideration of the following factors:

1. The findings of the nexus analysis. The nexus study establishes the maximum fee that may be charged to mitigate the impacts of new development on the need for affordable housing. Impact fees for rentals and non-residential development are limited to the maximums identified by the nexus. For-sale inclusionary requirements are generally not bound by nexus findings.
2. The City's policy objectives specified in the Housing Element.
3. The current requirements in neighboring jurisdictions.
4. Setting a fee high enough to support a meaningful contribution to affordable housing in Campbell.
5. Setting a fee low enough to not discourage development.

A. Residential Findings and Recommendations

KMA's recommendations for updates to the City's Affordable Housing Ordinance, including a new impact fee for rentals, are presented in this section, along with a summary of the factors considered by KMA.

1. Nexus Analysis Findings

The findings of the residential nexus analysis are summarized below.

Maximum Supported Residential Impact Fees, City of Campbell					
	Single Family - Large Lot	*Single Family - Small Lot*	*Townhome*	*Condominium*	*Apartments*
Per Market Rate Unit	$81,200	$65,700	$60,900	$45,700	$48,000
Per Square Foot*	$27.10	$36.60	$40.60	$45.70	$48.00

* Applies to net rentable / sellable area exclusive of garage space, external corridors and other common areas.
Source: Keyser Marston Associates Residential Nexus Analysis.

KMA recommends that impact fees for rental projects be set below the levels shown above and that in-lieu fees applicable to for-sale projects that have six or fewer units in the project be set below the levels identified above.

2. Affordable Housing Requirements in Other Jurisdictions

KMA assembled and summarized the affordable housing requirements for 18 jurisdictions in Santa Clara and Alameda Counties including those participating in the multi jurisdiction work program plus nine additional cities selected by the participants. The following is a condensed version focusing on selected comparisons. A complete summary is provided in Section IV and Table 3 (page Table 34).

Rentals: Overview of Adopted Rental Housing Impact Fees in Santa Clara County

The chart below shows selected examples of cities who have adopted impact fees for rental development following the 2009 *Palmer* decision (which eliminated the ability to apply inclusionary requirements to rental projects). Requirements are clustered around $17 per square foot, with Mountain View, Sunnyvale, and Fremont all following San Jose's lead in establishing a rental impact fee requirement at this level. Cupertino's fees are $20 per square foot for projects up to 35 dwelling units per acre and $25 per square foot for projects over 35 units per acre. The minimum size project subject to the fee ranges from five units for Mountain View down to single units for Cupertino. Campbell does not currently have an impact fee for rentals.

Impact Fees in Other Jurisdictions – Rental Units		
City	*Impact Fee*	*Min. Project Size Subject to Fee*
Cupertino	$20 / sq. ft. ($25 for projects over 35 du/acre)	1 unit
San Jose	$17/sq. ft.	3 units
Mountain View	$17/sq. ft.	5 units
Sunnyvale	$17/sq. ft. ($8.50 for projects with 4 – 7 units)	4 units
Fremont	$17.50/sq. ft.	2 units

*See Table 3 (page 34) for more detail.

Ownership Affordable Housing Requirements

For ownership projects, Campbell's onsite requirements are fairly consistent with the other cities in Silicon Valley. The onsite requirements for the cities analyzed are in the 10% – 15% range, with the exception of Fremont, which has a combined onsite obligation and fee payment. The table below briefly summarizes the programs.

Affordable Housing Requirements in Other Jurisdictions – Ownership Units				
City	*Percent*	*Affordability Level*	*Fee***	*Fee by Right?****
Campbell	15%	Low and Moderate	$34.50	Only projects 6 du/ ac. or less
Los Altos	10%	Low and Moderate	None	N/A
Santa Clara	10% (voluntary but encouraged)	Very Low to Moderate	None	N/A
Cupertino	15%	½ Moderate, ½ Median	$15 detached; $16.50 attached $20 multifamily	Projects under 7 units only
San Jose*	15%	Moderate	Affordability gap based on attached unit re-sales.	Yes
Mountain View	10%	Median	3% of sales price****	Projects under 10 units only
Sunnyvale	12.5%	Moderate	7% of sales price****	Projects under 20 units only
Fremont	Attached 3.5% + fee Detached: 4.5% + fee	Moderate	With on-site units: Attached: $18.50 psf Detached: $17.50 psf If no on-site units: Attached: $27 psf Detached: $26 psf	Yes

*Suspended during litigation but to be reinstated in 2016

**Of the identified fees for ownership units, all are implemented as in-lieu fees except Fremont which is implemented as a combination in-lieu and impact fee.

***The term ”fee by right” refers to an ordinance feature permitting payment of an in-lieu fee by right as an alternative to providing affordable units on-site without the need for special approval from the City Council.

****In-lieu fees computed as a percent of sales price are usually paid out of escrow at the time of sale.

See Table 3 (page 34) for more detail.

3. Multifamily Apartment Financial Feasibility

The analysis indicates that the economics of multifamily rental projects is currently robust and projects are generally feasible in the West Valley. Even in a strong market, rising land costs tend to absorb any “surplus” projects may have in their pro formas; however, the market is able to adjust to new costs such as increased fees in a variety of ways. One way markets can adjust is through downward pressure on land prices created when developers price new fees into the economics of their projects and adjust what they can afford to pay for land. When market rents are rising, this condition helps projects absorb increased fees. The table below illustrates how relatively modest improvements in project economics are sufficient to absorb illustrative fee levels of $10, $20, $30 and $40 per square foot. Calculations are also shown for each $1 in new fees so calculations can be made for any fee level that may be considered.

Potential Market Adjustments to Absorb New Fees

Potential Market Adjustments to Absorb Illustrative Fee Levels					
	Each $1 Fee	$10 Fee	$20 Fee	$30 Fee	$40 Fee
Increase in Rents/Income	0.11%	1.1%	2.2%	3.3%	4.5%
Decrease in Direct Costs*	0.43%	4.3%	8.7%	13.0%	17.4%
Decrease in Land Values (based on $119/sf)**	0.42%	4.2%	8.5%	12.7%	16.9%

*Please refer to Page 22 for a definition of direct costs of construction.

** $119 /sf land value is the estimated land value supported by the economics of new market rate apartment projects. Please see Section IV. A for more information.

Adjustments are not additive. Each would independently be sufficient to absorb new fees. Depending on the market cycle and other factors, a combination of the above market adjustments would be expected to contribute in absorbing a new fee.

Rising rents over the past few years have led to strong conditions for apartment development. Should rents remain on an upward trajectory, it could help absorb the cost of a new fee. As illustration, an additional 2.2% increase in market rents, about $86 per month, is estimated to be sufficient to absorb a new $20 per square foot fee. This only works when rents are being pushed upwards by strong market demand. Of course, rents are always set by the market and landlords can only charge what the market will bear.

4. Market Context

The City of Campbell has strong housing market conditions. The median price of all units sold in 2015 was nearly $1 million, following substantial increases since the recession, particularly over the past five years. The KMA survey of sales of newly built units found that sales prices of detached units were in the $530 to $556 per square foot range. Townhome and condominium units have been built in smaller sizes but priced higher per square foot, or $583 to $650 per square foot. Where sales data for new construction[2] was sparse, an examination of resale prices of units built since 2005 confirmed the current pricing.

The survey of rental units yielded similarly strong market conditions. The recently built Revere Campbell was surveyed along with some older properties, leading to conclusions that a new project could likely achieve rents averaging $3.60 per square foot for 1,000 square foot units.

5. Program Recommendations

Following are KMA's recommendations for updating Campbell's affordable housing requirements. These recommendations are based on Campbell's strong residential market, the multifamily financial feasibility analysis, nexus analysis results, and programs in nearby jurisdictions.

[2] For purposes of this Report, new construction is defined as a project adding a new residential unit, as distinguished from projects such as additions, remodels and teardown / rebuilds that do not add a net new residential unit.

a. *For-Sale On-site Requirement* – Campbell's 15% on-site requirement applied to for-sale projects should be maintained. The program appears to have been working well and represents a moderate to strong requirement.

b. *Small Projects Under 10 Units* – Consider a fee for projects under ten units, the current threshold for application of the City's Affordable Housing Ordinance. The nexus analysis supports an impact fee requirement for smaller projects, potentially down to one or two units as is done in some neighboring jurisdictions. Since projects under ten units are currently exempt, there can be an incentive for projects to stay just under the threshold to avoid the requirement. While a higher fee level is supported by the nexus for prototypes other than large-lot single family, we recommend consideration of fees at the $15 to $25 psf level for smaller projects consistent with other nearby jurisdictions such as Cupertino and Fremont.

c. *Additions* – The nexus analysis enables the City to consider applying affordable housing impact fees to additions to existing structures and the incremental residential area resulting from "Teardown / Rebuild" activity. San Carlos is an example of a program that applies a reduced fee for large additions over 1,000 square feet. However, charging for additions is not common. If the City applies fees to additions, consider fee levels similar to small projects (see above) or perhaps a reduced rate. Inclusion of a minimum size threshold for fee application will avoid the administrative burden of charging very small additions.

d. *Fees versus on-site units* – A basic parameter for an inclusionary program is whether fees or on-site units are preferred. Currently the City has an in-lieu fee option that is available only to low density projects and few projects have triggered it. If the City would prefer fees that can be leveraged with other funds to do stand-alone affordable projects, options include introducing a fee alternative for all projects, or introducing an "add on" fee in addition to the on-site requirement. In general, fees have to be set very high for on-site units to be at all a competitive choice. Section IV, Table 2 (page 28), provides information on fee levels that would be equivalent to the cost of complying with the City's existing inclusionary policy, information potentially useful if fee alternatives are considered. San Ramon offers an alternative model in that a modest fee is layered on top of an on-site inclusionary requirement (the fee is structured as an added on-site obligation with a modest in-lieu fee alternative). If added on top of on-site requirements, we suggest fees be kept modest, say $2 to $5 psf.

e. *Rentals* – for rental units, the City could either take a "wait and see" approach on proposed legislation to restore the ability to apply inclusionary requirements to rentals, or proceed with adopting an impact fee. While the nexus analysis supports fees up to $48 psf for rentals, we suggest a fee in the $20 to $25 psf range. This is above the prevailing $17 psf of neighboring jurisdictions but is supported by the strength of the rental market.

The City should evaluate whether it will want to encourage affordable units to be provided on-site as an alternative to payment of the fee, in which case a higher fee would be helpful. If the City would like to minimize the burden of paying a new fee for projects in the pipeline, a phase in period could be considered or potentially a pipeline exemption process. Of course, the disadvantage of a phase in or pipeline exemption is the potential forgone revenue for affordable housing.

f. *Density Bonus* – Under State law, projects may exceed local zoning by up to 35% when affordable units are provided on-site. Campbell's high residential real estate values coupled with the allowable densities under the City's zoning code have created an incentive for some projects to utilize the State Density Bonus. City staff noted four recent projects utilizing the State Density Bonus, of which two were rentals, one was a mix of rental and ownership units,[3] and one was a senior project. This experience demonstrates that the ability to achieve a density bonus will be an added incentive for affordable units to be provided on-site for some projects, if offered as an alternative to payment of a new impact fee for rentals. Should the City wish to incentivize projects to build to the local zoning instead of taking a density bonus, a potential new rental impact fee and any alternatives to provide units on-site would need to be structured with the desired incentives in mind. If incentivizing projects to build to local zoning is an objective, additional analysis to understand the value for projects associated with taking the density bonus may be helpful.

g. All fees should use the per square foot (psf) format as opposed to a fixed fee per unit. Per square foot fees are simple and fair in that larger units pay larger fees, consistent with impacts and on-site equivalent costs. With for-sale units, expressing fees as a percentage of sales price is also a workable option that several local jurisdictions including Mountain View, Palo Alto and Sunnyvale currently utilize.

B. Non-Residential Affordable Housing Impact Fees

The analysis prepared by KMA will enable the City of Campbell to consider adoption of a new affordable housing fee applicable to non-residential development in the City. The following section provides KMA's recommendations regarding a fee range should the City choose to move forward with establishing a new jobs housing linkage fee, along with a summary of the factors considered by KMA.

1. Nexus Analysis Findings

The KMA non-residential nexus analysis found very high supportable fee levels. The high fee levels supported by the analysis are not unusual for high cost areas such as Campbell. The nexus analysis establishes only the maximums for impact fees and will bear little relationship to the fee levels the City may ultimately select. The table below indicates the nexus analysis results.

[3] With the project with a mix of ownership and rental units (St. Anton's), all affordable units were provided as rentals.

Building Type	Maximum Supported Fee Per Square Foot
Office	$140.10
High Tech Office	$156.40
Retail	$260.70
Hotel	$125.50
Light Industrial	$146.50
Warehouse	$46.60

Note: Nexus findings are not recommended fee levels.
See Non-Residential Nexus Analysis for detail.

In our opinion, fee levels for cities should be selected based on a combination of the strength of the local real estate for the building types that will pay the fee, and local policy objectives. We also believe it is appropriate to take into account the fee levels in neighboring jurisdictions and cities that are comparable to Campbell in real estate demand.

2. Fees in Other Jurisdictions

The chart below summarizes fee levels for jurisdictions in Santa Clara County and the Peninsula that have adopted non-residential fees. The jurisdictions with the highest fees tend to be in areas with very strong demand for non-residential space, such as Palo Alto, Menlo Park and Mountain View. Other nearby cities that do not currently have affordable housing fees on non-residential development but may consider a new fee as part of this multi-jurisdiction effort include Santa Clara, Los Altos, Saratoga, Fremont, Milpitas, and Santa Clara County. San Jose, neighbor to Campbell and by far the largest city in Santa Clara County, has voted not to pursue a non-residential fee at this time. More details can be found in Section IV and Table 4 (Page 45).

Non-Residential Housing Impact Fees – Santa Clara Co. & Peninsula

Non-Residential Linkage Fees	Office $/SF	Retail $/SF	Hotel $/SF	Industrial $/SF
Mountain View	$25.00	$2.68	$2.68	$25.00
Cupertino	$20.00	$10.00	$10.00	$20.00
Palo Alto	$19.85	$19.85	$19.85	$19.85
Sunnyvale	$15.00	$7.50	$7.50	$15.00
San Francisco	$24.61	$22.96	$18.42	$19.34
Redwood City	$20.00	$5.00	$5.00	N/A
Menlo Park	$15.57	$8.45	$8.45	$8.45
average*	$20.00	$10.92	$10.27	$17.94

See Table 4 (page 45) for more details including features such as exemptions and size thresholds.
*average is for cities that have a fee in the applicable category.

As shown in the table above, some jurisdictions have adopted similar fees across all building types while others have adopted reduced fees for certain building types such as retail and hotel. Lower fees are sometimes adopted for retail and hotel uses as a function of a variety of local policy considerations such as market strength relative to office and other uses, a desire to scale fees relative to development costs (see discussion below), or a desire to remain competitive in attracting uses seen as providing fiscal and other benefits, etc. An average is provided for informational purposes; however, immediate neighbors and cities seen as having similar real estate conditions may provide more meaningful comparisons.

3. Total Development Costs

KMA estimated the total development cost associated with each building type and examined fee levels in the context of total costs. Total costs include construction, all permits and fees, land, financing and other indirect costs (a definition of indirect costs is provided on page 22). This facilitates an evaluation of whether the amount is likely to affect development decisions. Four non-residential prototype projects were selected for review of total development costs. The prototypes include office, hotel, retail, and light industrial. The cost estimates were prepared based on local information and our firm's extensive work with real estate projects throughout Silicon Valley and the Bay Area. More detail on the analysis can be found in Section IV. The results are summarized below:

Total Development Costs – Non-Residential	
Building Type	*Cost*
Office	$525 - $625 per sq.ft.
Hotel	$325 - $425 per sq.ft.
Retail / Restaurant / Service	$400 - $500 per sq.ft.
Light Industrial	$250 - $300 per sq.ft.

One useful way to evaluate alternative fee levels is to examine them as a percent of total development costs. For example, at 2% to 3% of costs, we would see the following fee levels:

Fees as a Percent of Development Costs		
Building Type	*2%*	*3%*
Office	$11 psf	$17 psf
Hotel	$7 psf	$11 psf
Retail / Restaurant	$9 psf	$13 psf
Light Industrial	$5 psf	$8 psf

4. Market Context

From the Bay Area regional perspective, market conditions for non-residential uses are strong. Within the context of Silicon Valley, the Campbell location is more moderate, commanding lower values than locations to the north and west, but stronger than its neighbors in the further south

and east. This is particularly true for the office and tech sectors, uses for which Campbell attracts ongoing development interest. New projects appear to be supporting higher density development and the associated higher costs. Campbell also continues to attract some light industrial and warehouse activity.

Retail and service uses are primarily local serving with some locations, such as the Pruneyard, serving a broader area. Hotels serve the local visitor base generated by the office and industrial activity of the local region.

5. Recommended Fee Levels for Non-Residential

Given the maximums established by the nexus analysis, the strength of Campbell's office, retail and hotel markets, and the fees in neighboring jurisdictions, should the City decide to proceed with a non-residential affordable housing fee, KMA recommends consideration of fees within the range of $10 to $15 per square foot for office and $5 to $10 per square foot for all other non-residential development. Depending on City policy priorities, the City may wish to further distinguish fee levels by building type (hotel, retail, restaurant, light industrial, etc.). While higher fees could probably be sustained without significantly affecting development activity, we believe the recommended range represents a good starting point for a new adoption.

The table below presents the recommended range:

KMA Recommended Fee Range, Non-Residential, City of Campbell	
Land Use	*Recommended Fee*
Office	$10.00 to $15.00 psf
Other Non-Residential	$5.00 to $10.00 psf

III. SUMMARY OF NEXUS ANALYSES

This section provides a concise summary of the residential and non-residential nexus analyses prepared for the City of Campbell. The analyses provide documentation necessary for adoption of new affordable housing impact fees applicable to residential and non-residential development. The analyses establish maximum supportable impact fee levels based on the impact new residential and non-residential development has on the need for affordable housing. Findings represent the results of an impact analysis only and are not recommended fee levels.

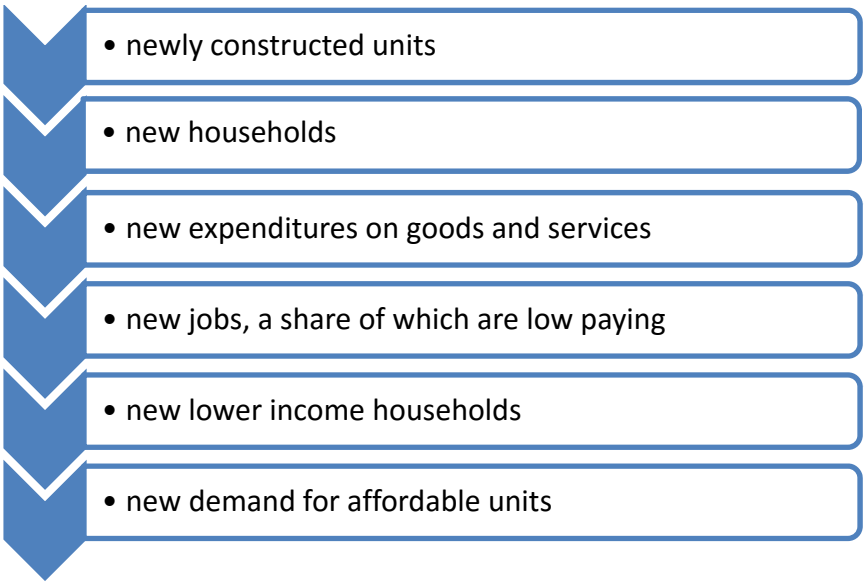
While nexus findings represent upper limits for impact fee-type requirements, inclusionary program requirements, including applicable in-lieu fees, are not bound by nexus findings based on the ruling by the California Supreme Court in the San Jose inclusionary housing case. Under current law, inclusionary requirements cannot be applied to rental units; however, this could change if currently proposed legislation is enacted (AB 2502).

Full documentation of the analyses can be found in the reports titled Residential Nexus Analysis and Non-Residential Nexus Analysis.

A. Residential Nexus Analysis Summary

The residential nexus analysis establishes maximum supportable impact fee levels applicable to residential development. The underlying concept of the residential nexus analysis is that the newly constructed units represent net new households in Campbell. These households represent new income in the City that will consume goods and services, either through purchases of goods and services or “consumption” of governmental services. New consumption generates new local jobs; a portion of the new jobs are at lower compensation levels; low compensation jobs relate to lower income households that cannot afford market rate units in Campbell and therefore need affordable housing.

Nexus Analysis Concept



1. Market Rate Residential Prototypes

In collaboration with City staff, a total of five market rate residential prototypes were selected: four ownership prototypes and one rental prototype. The intent of the selected prototypes is to identify representative development prototypes likely to be developed in Campbell in the immediate to mid-term future.

A summary of the five residential prototypes is presented below. Market survey data, City planning documents and other sources were used to develop the information. Market sales prices and rent levels were estimated based on KMA's market research.

Prototypical Residential Units for City of Campbell

	Single Family - Large Lot	*Single Family - Small Lot*	*Townhome*	*Condominium*	*Apartments*
Avg. Unit Size	3,000 SF	1,800 SF	1,500 SF	1,000 SF	1,000 SF
Avg. No. of Bedrooms	4.00	3.25	3.00	1.50	1.50
Avg. Sales Price / Rent	$1,590,000	$1,000,000	$875,000	$650,000	$3,600 /mo.
Per Square Foot	$530 /SF	$556 /SF	$583 /SF	$650 /SF	$3.60 /SF

2. Household Expenditures and Job Generation

Using the sales price or rent levels applicable to each of the five market rate residential prototypes, KMA estimates the household income of the purchasing/renting household.

Household income is then translated to income available for expenditures after deducting taxes, savings and household debt, which becomes the input to the IMPLAN model. The IMPLAN model is used to estimate the employment generated by the new household spending. The IMPLAN model is an economic model widely used for the past 35 years to quantify the impacts of changes in a local economy. For ease of presentation the analysis is conducted based on an assumed project size of 100 market rate units.

A 20% downward adjustment is made to the IMPLAN employment estimates based on the expectation that a portion of jobs may be filled by existing workers who already have housing locally. The 20% adjustment is based upon job losses in declining sectors of the local economy over a historic period. "Downsized" workers from declining sectors are assumed to fill a portion of the new jobs in sectors that serve residents.

The translation from market rate sales prices and rent levels for the prototypical units to the estimated number of jobs in sectors such as retail, restaurants, health care and others providing goods and services to new residents is summarized in the table below.

Household Income, Expenditures, Job Generation, and Net New Worker Households

	Single Family - Large Lot	*Single Family - Small Lot*	*Townhome*	*Condominium*	*Apartments*
Avg. Sales Price / Rent	$1,590,000	$1,000,000	$875,000	$650,000	$3,600
Gross Household Income	$270,000	$189,000	$175,000	$132,000	$147,000
Net Annual Income available for expenditure	$156,600	$126,600	$117,300	$89,800	$94,000
Total Jobs Generated [from IMPLAN] (100 Units)	94.4	76.3	70.7	53.3	55.8
Net New Jobs after 20% reduction for declining industries (100 units)	75.5	61.1	56.6	42.7	44.7

See Residential Nexus Analysis report for full documentation.

3. Compensation Levels of Jobs and Household Income

The output of the IMPLAN model – the numbers of jobs by industry – is then entered into the Keyser Marston Associates jobs housing nexus analysis model to quantify the compensation levels of new jobs and the income of the new worker households. The KMA model sorts the jobs by industry into jobs by occupation, based on national data, and then attaches local wage distribution data to the occupations, using recent Santa Clara County data from the California Employment Development Department (EDD). The KMA model also 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. For purposes of the adjustment from jobs to housing units, the average of 1.72 workers per working household in Santa Clara County is used.

Adjustment from No. of Workers to No. of Households					
	Single Family - Large Lot	*Single Family - Small Lot*	*Townhome*	*Condominium*	*Apartments*
Net New Jobs (100 Units)	75.5	61.1	56.6	42.7	44.7
Divide by No. of Workers per Worker Household	1.72	1.72	1.72	1.72	1.72
Net new worker households (100 Units)	44.0	35.6	32.9	24.9	26.0

The output of the model is the number of new worker households by income level (expressed in relation to the Area Median Income, or AMI) attributable to the new residential units and new households in Campbell. Four categories of addressed: Extremely Low (under 30% of AMI), Very Low (30% to 50% of AMI), Low (50% to 80% of AMI) and Moderate (80% to 120% of AMI).

Following are the numbers of worker households by income level associated with the Campbell prototype units.

New Worker Households per 100 Market Rate Units, City of Campbell					
	Single Family - Large Lot	*Single Family - Small Lot*	*Townhome*	*Condominium*	*Apartments*
Extremely Low (0%-30% AMI)	7.9	6.4	5.9	4.5	4.7
Very Low (30%-50% AMI)	11.9	9.6	8.9	6.7	7.0
Low (50%-80% AMI)	10.1	8.2	7.6	5.6	5.9
Moderate (80%-120% AMI)	6.5	5.2	4.8	3.6	3.8
Total, Less than 120% AMI	**36.3**	**29.4**	**27.2**	**20.4**	**21.4**
Greater than 120% AMI	7.7	6.2	5.7	4.4	4.6
Total, New Households	**44.0**	**35.6**	**32.9**	**24.9**	**26.0**

See Residential Nexus Analysis report for full documentation.

Housing demand is distributed across the lower income tiers. The finding that the greatest number of households occurs in the Very Low and Low income tiers is driven by the fact that jobs associated with consumer spending tend to be low-paying, such as food preparation, administrative, and retail sales occupations.

4. Nexus Supported Maximum Fee Levels

The next step in the nexus analysis takes the number of households in the lower income categories associated with the market rate units and identifies the total subsidy required to make housing affordable. This is done for each of the prototype units to establish the 'total nexus cost,'

which is the Maximum Supported Impact Fee conclusion of the analysis. For the purposes of the analysis, KMA assumes that affordable housing fee revenues will be used to subsidize affordable rental units for households earning less than 80% of median income, and to subsidize affordable ownership units for households earning between 80% and 120% of median income. Affordability gaps are calculated for each of the income tiers; the nexus costs are calculated by multiplying the affordability gaps by the number of households in each income level.

The Maximum Supported Impact Fees are calculated at the per-unit level and the per-square-foot level and are shown in the table below.

Maximum Supported Residential Impact Fees, City of Campbell					
	Single Family - Large Lot	*Single Family - Small Lot*	*Townhome*	*Condominium*	*Apartments*
Per Market Rate Unit	$81,200	$65,700	$60,900	$45,700	$48,000
Per Square Foot*	$27.10	$36.60	$40.60	$45.70	$48.00

* Applies to net rentable / sellable area exclusive of garage space, external corridors and other common areas.

These costs express the maximum supported impact fees for the five residential prototype developments in Campbell. These findings are **not** recommended fee levels.

B. Non-Residential Nexus Analysis Summary

The non-residential nexus analysis quantifies and documents the impact of the construction of new workplace buildings (office, retail, hotels, etc.) on the demand for affordable housing. It is conducted to support the consideration of a new affordable housing impact fee or commercial linkage fee applicable to non-residential development in the City of Campbell.

Full documentation of the nexus analysis is contained in the report entitled Non-Residential Nexus Analysis.

The workplace buildings that are the subject of this analysis represent a cross section of typical commercial buildings developed in Campbell in recent years and expected to be built in the near term future. For purposes of the analysis, the following six building types were identified:

- Office
- High Tech Office
- Hotel
- Retail / Restaurant / Service
- Light Industrial
- Warehouse

The nexus analysis links new non-residential buildings with new workers; these workers demand additional housing, a portion of which needs to be affordable to the workers in lower

income households. The analysis begins by assuming a 100,000 square foot building for each of the six building types and then makes the following calculations:

- The total number of employees working in the building is estimated based on average employment density data.
- Occupation and income information for typical job types in the building are used to calculate how many of those jobs pay compensation at the levels addressed in the analysis. Compensation data is from California EDD and is specific to Santa Clara County. Worker occupations by building type are derived from the 2014 Occupational Employment Survey by the U.S. Bureau of Labor Statistics.
- New jobs are adjusted to new households, using Santa Clara County demographics on the number of workers per household. We know from the Census that many workers are members of households where more than one person is employed and there is also a range of household sizes; we use factors derived from the Census to translate the number of workers into households of various size. Household income is calculated depending on the number of workers per household.
- The number of Extremely Low-, Very Low-, Low-, and Moderate-Income households generated by the new development is calculated and divided by the 100,000 square foot building size to arrive at coefficients of housing units per square foot of building area. The household income categories addressed in the analysis are the same as those in the Residential Nexus Analysis.
- The number of lower income households per square foot is multiplied by the affordability gap, or the cost of delivering housing units affordable to these income groups. This is the Maximum Supported Impact Fee for the non-residential land uses.

The Maximum Supported Impact Fees for the six building types are as follows:

Building Type	Maximum Supported Fee Per Square Foot
Office	$140.10
High Tech Office	$156.40
Retail	$260.70
Hotel	$125.50
Light Industrial	$146.50
Warehouse	$46.60

Note: Nexus findings are not recommended fee levels.
See Non-Residential Nexus Analysis for detail.

The results of the analysis are heavily driven by the density of employees within buildings in combination with the occupational make-up of the workers in the buildings. Retail has both high employment density and a high proportion of low paying jobs.

These figures express the maximum supported impact fee per square foot for the six building types. They are not recommended levels for fees; they represent only the maximums established by this analysis, below which impact fees may be set.

Overlap Analysis

There is a potential for some degree of overlap between jobs counted in the Non-Residential Nexus Analysis and jobs counted in the Residential Nexus Analysis. The potential for overlap exists in jobs generated by the expenditures of City residents, such as expenditures for food, personal services, restaurant meals and entertainment. Retail is the building type that has the greatest potential for overlap to occur because it is often oriented to serving local residents. On the other hand, the potential for overlap is far less with office, industrial, warehouse and hotel buildings that often house businesses that serve a much broader, sometimes national or international, market and that are not focused on services to local residents. Appendix B to the Non-Residential Nexus Analysis provides additional discussion and an analysis demonstrating that, even in the improbable and theoretical case of complete overlap between jobs counted in the two nexus analyses, impact fees at the recommended levels would remain below the maximums supported by the nexus.

IV. CONTEXT MATERIALS

The purpose of this section is to provide information that may be useful to policy makers in considering potential amendments to the City's affordable housing requirements for residential development and potential adoption of a new affordable housing impact fee applicable to non-residential development. The following analyses and summary materials are included:

- **Multifamily Apartment Feasibility Analysis** – Section A. presents the analysis and findings regarding the financial feasibility of new multifamily market rate apartments;

- **Inclusionary Program Compliance Costs** – Section B. analyzes the cost to a market rate residential project of complying with the City's existing inclusionary requirements on-site;

- **Residential Affordable Housing Requirements in Other Jurisdictions** – Section C. provides a summary of inclusionary and impact fee requirements in other Santa Clara and Alameda county jurisdictions;

- **Non-Residential Development Cost Context –** Section D. evaluates total development costs associated with four prototypical building types to facilitate an evaluation of whether fee amounts are likely to affect development decisions; and

- **Jobs Housing Linkage Fee Programs in Other Jurisdictions** – Section E. provides information regarding adopted linkage fee programs in jurisdictions throughout the Bay Area and elsewhere in California.

A. Multifamily Apartment Financial Feasibility Analysis

In adopting or amending affordable housing requirements, cities typically consider a variety of public policy goals including seeking a balance between producing a meaningful amount of new affordable units and establishing requirements at a level that can be sustained by new market rate projects. This section addresses the potential impacts that new housing impact fees could have on the feasibility of new multi-family apartment projects. The analysis is specific to the West Valley cities of Campbell, Saratoga, and Los Altos.

The financial feasibility analysis is focused on rental projects because the City's inclusionary housing requirements for rental projects have not been enforceable since the 2009 *Palmer* decision and adoption of a new rental impact fee would represent an additional cost that would need to be absorbed within the economics of rental projects. In contrast, feasibility of for-sale projects was not analyzed as the City's inclusionary housing policy is already reflected in development economics of new for-sale projects.

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

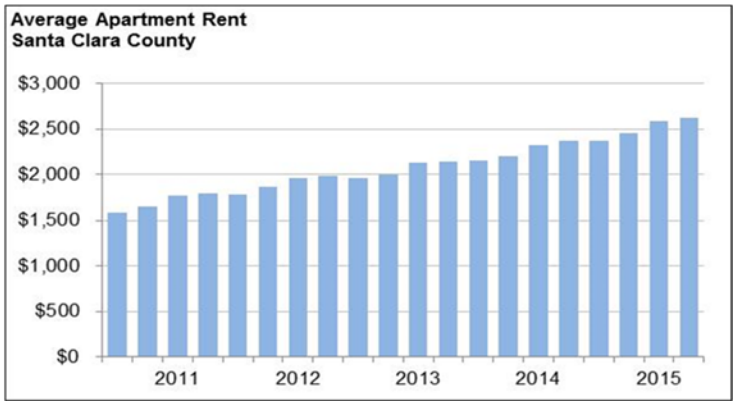
- Prototypical Nature of Analysis – This financial feasibility analysis, by its nature, can only provide a general assessment of development economics because it is based on prototypical projects rather than specific projects. Every project has unique characteristics that will dictate rents supported by the market as well as development costs and developer return requirements. This feasibility analysis is intended to reflect prototypical apartment projects in the cities of Campbell, Saratoga, and Los Altos but it is recognized that the economics of some projects will likely look better and some likely worse than those of the prototype analyzed.

- Near Term Time Horizon – This feasibility analysis is a snapshot of real estate market conditions as of early 2016. The analysis is most informative regarding near term implications a housing impact fee 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 regarding rent potential, construction costs, land costs, and costs of financing. A year or two from now, conditions will undoubtedly be different.

- Adjustments to Land Costs over Time – Developers purchase development sites at values that will allow for financially feasible projects. If a housing fee is put in place, developers will "price in" the requirement when evaluating a project's economics and negotiating the purchase price for development sites. Given that the requirements will apply to all or most projects, 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, at least to some degree, bring costs back into better balance with the overall economics supported by projects.

Apartment Market Context

Like most parts of the Bay Area, Santa Clara County has experienced improving apartment market conditions (for new development) in recent years as exhibited by rising rents and occupancy rates. The improvement in market conditions is attributable to robust regional job growth and the overall strength of the regional economy.



Source: RealAnswers

Many parts of Santa Clara County have experienced significant new investment in market rate apartment development in recent years due to the rapid rise in job growth and apartment rental rates as well as the availability of low cost investment capital (debt and equity).

Financial Feasibility Analysis

The financial feasibility analysis estimates the costs to develop a new apartment project and the rental income that could be generated by the project upon completion. If the rental income is sufficient to support the development costs and generate a sufficient profit margin, the project is considered feasible. This approach to financial feasibility, known as a pro forma approach or income approach, is common practice in the real estate industry and is utilized in one form or another by all developers when analyzing new construction projects.

This analysis organizes the pro forma as a "land residual analysis", meaning the pro forma solves for what the project can afford to pay for a development site based on the 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 following describes the assumptions utilized in the analysis and the conclusions drawn therefrom.

- The direct construction costs of development include all contractor labor and material costs to construct the project including general requirements, contractor fees, and contingencies. As shown in Table 1 (page 24), the direct construction costs are estimated at $253,000/unit. This estimate has been made based on third party construction data sources, such as RS Means, and by cost estimates for similar building types elsewhere in the market. Indirect costs of development include architecture and engineering (A&E) costs, municipal fees and permits costs, taxes, insurance, overhead, and debt financing costs. These costs have been estimated at $103,000/unit.

- Rental income for the apartment prototype has been estimated based on apartment rent comps. Rents are estimated at $3,900/month, or $3.55/square foot/month. After a

vacancy factor, operating expenses, and property taxes, the net operating income (NOI) is estimated at $33,900/unit/year. Using this NOI and applying a 5.5% project return, the project value/supported investment is estimated at $616,000/unit.

- The residual land value is derived by subtracting the development costs before land acquisition from the project value/supported investment. As shown in Table 1 (page 24), the residual land value without a housing fee for the apartment prototype at 20 units per acre is approximately $260,000/unit or $119/square foot of land area.

Once the residual land values have been estimated, the values can be compared to prevailing land values in the market to determine whether the prototypes are financially feasible. In other words, if the residual land values are equal to or higher than market land values, then projects are generally feasible. Conversely, if the residual land values are less than market land values, some improvement in market conditions (lower development costs or higher housing values) will be needed for feasibility.

Land Value Supported

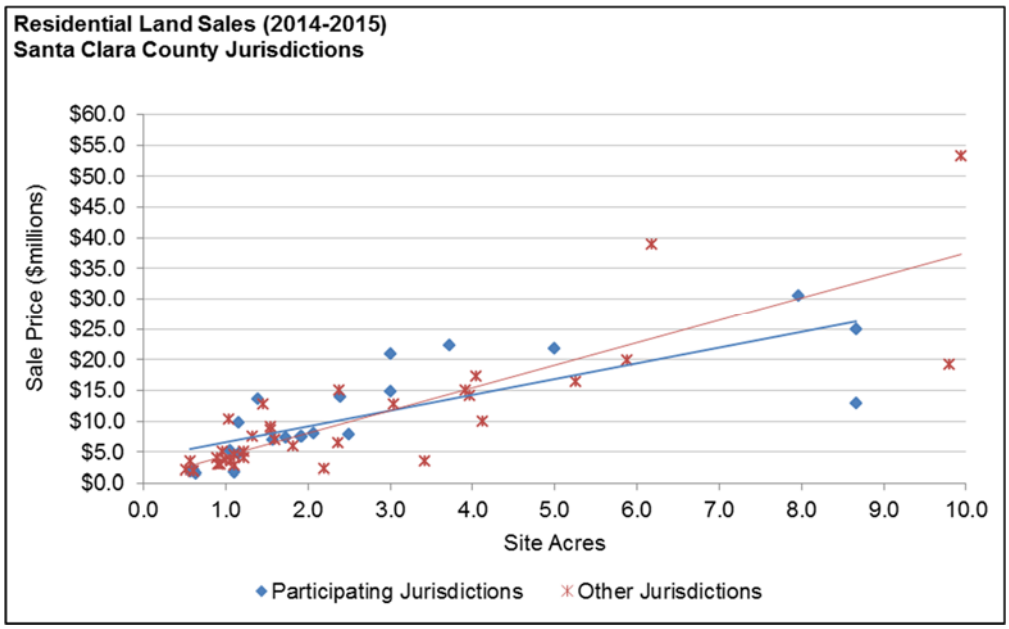
The feasibility analysis summarized in Table 1 on the next page indicates that apartment projects in the West Santa Clara County jurisdictions (cities of Campbell, Saratoga, and Los Altos), assumed at 20 units per acre on average, can afford to pay on average $119/square foot for land with no affordable housing fee in place. The analysis also tested the land value supported with illustrative fee scenarios of $10 to $40 per net square foot. As shown, the supported land value decreases by approximately $5 per square foot of land for each $10 per square foot in fees added. The highest illustrative fee tested of $40 per square foot, which is approaching the maximum supported by the nexus, is estimated to bring the residual land values to just under $100 per square foot.

Table 1. Summary of Apartment Feasibility Analysis
West Santa Clara County Jurisdictions

Program		
Average Unit Size	1,100 sf (NSF)	
Average Bedrooms	2 bedrooms	
Density	20 du/acre	
Parking	Surface	
Development Costs	**$/NSF**	**$/Unit**
Directs	$230	$253,000
Indirects		
A&E	$12	$13,000
Fees & Permits (excl. Affordable)	$36	$40,000
Overhead & Administration	$9	$10,000
Other Indirects	$21	$23,000
Debt Financing Costs	$15	$17,000
Total Indirects	$94	$103,000
Total Costs before Land	$324	$356,000
Operating Income	**$/NSF**	**$/Unit**
Gross Income ($3,900 rent + other income)	$44	$48,100
(Less) Vacancy (5%)	($2)	($2,400)
(Less) Operating Expenses & Taxes	($11)	($11,800)
Net Operating Income (NOI)	$31	$33,900
Threshold Return on Cost	5.50% ROC	
Total Supported Private Investment	$560	$616,000
Residual Land Value with Illustrative Fees	**$/Land SF**	**$/Unit**
Land Value: No Affordable Housing Fee	$119	$260,000
Land Values With Illustrative Fee Scenarios		
Illustrative Fee at $10/square foot	*$114*	*$249,000*
Illustrative Fee at $20/square foot	*$109*	*$238,000*
Illustrative Fee at $30/square foot	*$104*	*$227,000*
Illustrative Fee at $40/square foot	*$99*	*$216,000*

Prevailing Land Values

In order to assess prevailing land values for residential development in the Santa Clara County jurisdictions, KMA reviewed relevant land sale comparables (comps) in 2014 and 2015 as well as recent residential land appraisals. The median sale price of the land comps located within the participating Santa Clara County jurisdictions was $92/square foot. In general, land values will be higher in superior locations such as those with convenient proximity to job centers, public transit, retail and commercial services, and freeway access, as well as for sites that are of ideal size and configuration and have appropriate entitlements for near-term residential development.



Land sales in participating jurisdictions include cities of Santa Clara, Milpitas, Campbell, and Saratoga.
Median sale price in participating jurisdictions = $92/square foot.
Land sales in other jurisdictions include Mountain View, Sunnyvale, San Jose, and Cupertino.

Based on the fact that the land sales reviewed for this analysis occurred in 2014 and 2015, the values today would be higher after accounting for land value appreciation. In general, values for the West County jurisdictions of Campbell, Los Altos, and Saratoga will also likely be higher than in Santa Clara and Milpitas given the higher residential values in these cities; however, information is limited due to the very few recorded land transactions occurring in these cities. We estimate land values are in the $100 to $120 per square foot range for a vacant or developable site, which is within the same range as the $119 per square foot land value supported by the economics of new multifamily apartment projects as estimated in Table 1 (page 24). As noted in the beginning of this section, due to the prototype approach to this analysis, some apartment projects will probably support a somewhat higher land value and some projects will support a somewhat lower land value based on location, site, and other individual project considerations.

Feasibility Conclusion

The analysis indicates that the economics of multifamily rental projects are strong under current market conditions and that projects are generally feasible. This finding is consistent with recent development activity in Campbell and Los Altos which includes several recently completed and approved apartment projects.

Potential Market Adjustments to Absorb New Fees

In a strong market, developers are often faced with increasing competition for building sites. These conditions can drive up the cost of land and will have a tendency to absorb any "surplus" projects might have had in their economics. Construction costs can also rise when development activity is strong. As a result, even under the strongest of conditions, projects usually do not have a "surplus" in their pro formas available to absorb new fees. However, markets are able to adjust to new fees just as they adjust to other changing market conditions such as rents and construction costs. Just as strong feasibility conditions contribute to increasing land prices, a new fee can contribute to downward pressure on land prices as developers must build the new fee into the economics of their projects and may adjust what they are willing to pay for land as a result. This can help offset, at least to some degree, the increased cost of a new fee.

Since the feasibility analysis is a snapshot in time analysis based on current market conditions, in can be instructive to consider how relatively modest improvements in project economics (e.g. continued strong increases in rents paired with more moderated increases in construction costs) can help to absorb a new fee. By way of illustration, a $20/square foot fee could be absorbed by any of the following market adjustments:

- An approximately 2% increase in rents
- An approximately 8.7% decrease in direct construction costs
- An approximately 8.5% decrease in land costs

Additional examples of potential market adjustments at illustrative fee levels of $10, $30 and $40 per square foot are shown in the table below. These calculations can be made for any fee level that may be considered.

Potential Market Adjustments to Absorb New Fees

Potential Market Adjustments to Absorb Illustrative Fee Levels					
	Each $1 Fee	$10 Fee	$20 Fee	$30 Fee	$40 Fee
Increase in Rents/Income	0.11%	1.1%	2.2%	3.3%	4.5%
Decrease in Direct Costs	0.43%	4.3%	8.7%	13.0%	17.4%
Decrease in Land Values (based on $119/sf)	0.42%	4.2%	8.5%	12.7%	16.9%

B. On-Site Compliance Cost Analysis

The inclusionary program in Campbell requires developers of new for-sale projects to set aside 15% of units for low and moderate income households. KMA estimated the foregone revenue for the developer when units are sold at affordable prices; this is referred to as the 'onsite compliance costs.' KMA notes that the 'cost' is compared to the hypothetical condition of no requirement. As Campbell has long had its inclusionary program in place, land values for residential development have adjusted to absorb this cost, as any developer acquiring land knows how the obligation will affect their project's economics. A primary purpose of the onsite compliance analysis is to enable an understanding of the cost associated with complying with the City's existing inclusionary requirements, which is often useful as context for consideration of potential fee obligations.

KMA modeled the onsite compliance costs for two scenarios: 15% of units at Moderate and 15% of units at Low. The City typically requires developers to provide a mix of Moderate and Low Income units; the two scenarios KMA modeled represent the low and high ends of onsite compliance costs given the City's current requirements. Table 2 (page 28) presents our estimates of onsite compliance costs for ownership units. With current market rate sales prices, the cost to a developer associated with designating 15% of units at Moderate ranges from $48,000 to $170,000 per market rate unit or $47 to $57 per net square foot, depending on the prototype. The cost to a developer associated with designating 15% of units at Low Income ranges from $77,000 to $207,000 per market rate units, or $67 to $77 per net square foot. Rental projects were not included in the analysis because inclusionary requirements for rentals have not been enforceable since the 2009 Palmer decision. These figures should not be interpreted as recommended fee levels.

TABLE 2
COST OF ONSITE COMPLIANCE AND EQUIVALENT IN-LIEU FEES
CITY OF CAMPBELL, CA

		Prototype 1 Large Lot Single Family Detached		Prototype 2 Small Lot Single Family Detached		Prototype 3 Townhome		Prototype 4 Condominium	
Unit Size[1]		3,000 sq ft		1,800 sq ft		1,500 sq ft		1,000 sq ft	
Number of Bedrooms[1]		4		3.25		3		1.5	
Market Rate		***Per SF***	***Per Unit***	***Per SF***	***Per Unit***	***Per SF***	***Per Unit***	***Per SF***	***Per Unit***
Sales Prices[1]		$530	$1,590,000	$556	$1,000,000	$583	$875,000		$650,000
Affordable Prices [2]			***Per Unit***		***Per Unit***		***Per Unit***		***Per Unit***
At Moderate Income (110%)			$454,650		$431,025		$401,250		$330,625
At Low Income (70%)			$210,150		$200,100		$174,750		$138,200
Affordability Gap [3]			***Per Unit***		***Per Unit***		***Per Unit***		***Per Unit***
Per Affordable Moderate Unit			$1,135,350		$568,975		$473,750		$319,375
Per Affordable Low Unit			$1,379,850		$799,900		$700,250		$511,800
Cost of Onsite Compliance		***Per SF***	***Per Unit***	***Per SF***	***Per Unit***	***Per SF***	***Per Unit***	***Per SF***	***Per Unit***
Inclusionary Percentage @	15% Mod	$57	$170,303	$47	$85,346	$47	$71,063	$48	$47,906
Inclusionary Percentage @	15% Low	$69	$206,978	$67	$119,985	$70	$105,038	$77	$76,770

1. See Residential Nexus Analysis Table A-1.
2. Estimate calculated by KMA based on standard affordable pricing assumptions and may not reflect City's methodology.
3. The difference between the market rate sales prices and the restricted affordable price.

TABLE 2A
ESTIMATED AFFORDABLE HOME PRICE - Moderate Income
CITY OF CAMPBELL, CA

	Condo	Condo	Townhome	SFD	SFD
Unit Size	1-Bedroom Unit	2-Bedroom Unit	3-Bedroom Unit	3-Bedroom Unit	4-Bedroom Unit
Household Size	2-person HH	3-person HH	4-person HH	4-person HH	5-person HH
Area Median Income, Santa Clara County 2016	$85,700	$96,400	$107,100	$107,100	$115,650
Annual Income at 110%	$94,270	$106,040	$117,810	$117,810	$127,215
% for Housing Costs	35%	35%	35%	35%	35%
Available for Housing Costs	$32,995	$37,114	$41,234	$41,234	$44,525
(Less) Property Taxes	($3,696)	($4,236)	($4,812)	($5,076)	($5,460)
(Less) HOA	($4,200)	($4,200)	($3,300)	$0	$0
(Less) Utilities	($1,116)	($1,116)	($1,776)	($3,144)	($3,552)
(Less) Insurance	($500)	($700)	($800)	($800)	($900)
(Less) Mortgage Insurance	($3,956)	($4,523)	($5,144)	($5,427)	($5,832)
Income Available for Mortgage	$19,527	$22,340	$25,402	$26,787	$28,781
Mortgage Amount	$293,000	$335,200	$381,200	$402,000	$431,900
Down Payment (homebuyer cash)	$15,400	$17,650	$20,050	$21,150	$22,750
Supported Home Price	$308,400	$352,850	$401,250	$423,150	$454,650
Key Assumptions					
- Mortgage Interest Rate [1]	5.30%	5.30%	5.30%	5.30%	5.30%
- Down Payment [2]	5.00%	5.00%	5.00%	5.00%	5.00%
- Property Taxes (% of sales price) [3]	1.20%	1.20%	1.20%	1.20%	1.20%
- HOA (per month) [4]	$350	$350	$275	$0	$0
- Utilities (per month) [5]	$93	$93	$148	$262	$296
- Mortgage Insurance (% of loan amount)	1.35%	1.35%	1.35%	1.35%	1.35%

(1) Mortgage interest rate based on 15-year Freddie Mac average; assumes 30-year fixed rate mortgage.
(2) Down payment amount is an estimate for Moderate Income homebuyers.
(3) Property tax rate is an estimated average for new projects.
(4) Homeowners Association (HOA) dues is an estimate for the average new project.
(5) Utility allowances from Santa Clara County Housing Authority (2016).

TABLE 2B
ESTIMATED AFFORDABLE HOME PRICE - Low Income
CITY OF CAMPBELL, CA

	Condo	Condo	Townhome	SFD	SFD
Unit Size	1-Bedroom Unit	2-Bedroom Unit	3-Bedroom Unit	3-Bedroom Unit	4-Bedroom Unit
Household Size	2-person HH	3-person HH	4-person HH	4-person HH	5-person HH
Area Median Income, Santa Clara County 2016	$85,700	$96,400	$107,100	$107,100	$115,650
Annual Income at 70%	$59,990	$67,480	$74,970	$74,970	$80,955
% for Housing Costs	30%	30%	30%	30%	30%
Available for Housing Costs	$17,997	$20,244	$22,491	$22,491	$24,287
(Less) Property Taxes	($2,064)	($2,400)	($2,772)	($3,036)	($3,252)
(Less) HOA	($4,200)	($4,200)	($3,300)	$0	$0
(Less) Utilities	($1,116)	($1,116)	($1,776)	($3,144)	($3,552)
(Less) Insurance	($500)	($700)	($800)	($800)	($900)
(Less) Mortgage Insurance	($2,201)	($2,565)	($2,970)	($3,240)	($3,483)
Income Available for Mortgage	$7,917	$9,263	$10,873	$12,271	$13,100
Mortgage Amount	$118,800	$139,000	$163,200	$184,100	$196,600
Down Payment (homebuyer cash)	$8,600	$10,000	$11,550	$12,650	$13,550
Supported Home Price	$127,400	$149,000	$174,750	$196,750	$210,150
Key Assumptions					
- Mortgage Interest Rate [1]	5.30%	5.30%	5.30%	5.30%	5.30%
- Down Payment [2]	5.00%	5.00%	5.00%	5.00%	5.00%
- Property Taxes (% of sales price) [3]	1.20%	1.20%	1.20%	1.20%	1.20%
- HOA (per month) [4]	$350	$350	$275	$0	$0
- Utilities (per month) [5]	$93	$93	$148	$262	$296
- Mortgage Insurance (% of loan amount)	1.35%	1.35%	1.35%	1.35%	1.35%

(1) Mortgage interest rate based on 15-year Freddie Mac average; assumes 30-year fixed rate mortgage.
(2) Down payment amount is an estimate for Low Income homebuyers.
(3) Property tax rate is an estimated average for new projects.
(4) Homeowners Association (HOA) dues is an estimate for the average new project.
(5) Utility allowances from Santa Clara County Housing Authority (2016).

C. Residential Affordable Housing Requirements in Other Jurisdictions

The affordable housing requirements adopted by other jurisdictions are almost always of interest to decision making bodies. Cities inevitably want to know what their neighbors have in place for affordable housing requirements, and often want to examine other cities that are viewed as comparable on some level. The body of information on other programs not only presents what others are adopting, but also illustrates the broad range in program design and customized features available to meet local needs.

The work program design for Multi Jurisdiction Nexus Studies anticipated wide interest in the comparison jurisdictions to be covered. To keep the comparison task manageable, the participating cities and counties voted as to which cities were of greatest interest for inclusion in the comparison survey. For the most part, the participants selected their neighbors and the larger cities of the local region as being of most interest. It was a given that the existing requirements of all participant cities and counties would also be included. Ultimately, eight cities in Santa Clara County and ten cities in Alameda County were selected for inclusion in the comparison material.

A four-page chart summarizes the key features of the eighteen cities in the survey (Table 3, page 34). Neither of the two participating counties have yet adopted affordable housing requirements. The chart was designed to focus on the major components of each city's program that would be most relevant to decision making by the participating jurisdictions, primarily the thresholds, the fee levels and on-site affordable unit requirements.

1. Findings from the Survey

Thresholds for On-Site Affordable Requirement

- Whether or not for-sale development projects have the choice "as of right" between paying a fee or doing on-site units is a critical feature of any program. In the eight Santa Clara jurisdictions, six require on-site units and offer no fee "buy out" without a special City Council procedure. Only San Jose and Milpitas offer the fee choice at this time. In contrast, of the ten Alameda jurisdictions, most offer fee payment "as of right."

- Most fee options are less costly to the developer than providing on-site units. High fees are necessary if the choice between building units or paying fees is to be at all competitive. The high fee cities, such as Fremont, aim to present a real choice and achieve some on-site compliance units as well as fee revenues.

- With the loss of redevelopment and tax increment resources dedicated to housing, many cities have revised their programs to generate more fee revenues. Programs can be

revised to so as to alter options or incentives for projects to provide on-site units versus pay a fee based on the City's preferences.

- The loss of redevelopment has also motivated some cities to lower minimum project sizes to collect fees on very small projects, even single units. Several Santa Clara cities in the chart have adjusted their thresholds down to three to five units for fee payment, and the recently updated Cupertino program goes down to single units. The nexus analysis fully demonstrates the impact generated by single units, and as a result, some cities view charging very small projects and single units a matter of fairness and equity in an "everybody contributes" approach to meeting affordable housing challenges.

- Following the *Palmer* decision, impact fees have been the only avenue for instituting affordable housing requirements on rentals. On-site affordable units are sometimes permitted or encouraged as an alternative to fee payment.

Fee Levels

- Impact fee levels for rentals in the cities of north and west Santa Clara County cluster in the $15 to $20 per square foot range for rentals, notably San Jose, Mountain View, Sunnyvale, and Cupertino. Most other cities have not yet adopted impact fees on rentals.

- Fees on for sale units, where permitted, in the Santa Clara cities reflect a range of approaches and levels. Several Silicon Valley cities charge fees as a percent of sales price, a practice not used much outside of Silicon Valley. The percent of sales prices reflects the higher impacts of higher priced units, borne out in the nexus analysis. The approach also scales fees in proportion to the revenue projects would forgo were a portion of units to be made affordable on-site.

- In the East Bay, Fremont is notable for its higher fees and obligation to provide both units and pay fees. To the north of Fremont, the cities of Hayward and Union City have lower fee structures. Oakland is a new adoption that will phase in fees up to $23,000 per market rate unit, less than Berkeley but higher than neighbors to the south.

- East of the hills, some programs like Pleasanton, have been in place for decades but are more modest than most of the newer ones. Dublin is, in many ways, its own special case, with vigorous development activity and affordable unit requirements.

On-Site Requirements

- The Santa Clara cities (excluding Milpitas) have programs in the 10% to 20% range, with 15% most common.

- For the Santa Clara County programs, the affordability level applicable to for-sale projects is usually in the moderate income range, with pricing of on-site units ranging from 90% to 120% AMI, depending on the city. A few cities, including Campbell and Los Altos, do seek some units down to Low Income.

- In Alameda cities, on-site requirements are most commonly at the 15% level. Berkeley has a 20% requirement, while Hayward and Oakland have lower requirements. The Fremont percentage is lower but a fee is owed in addition to on-site units.

2. Other General Comments

- Impact / in-lieu fees are presented at adopted levels. Where a multi-year phase-in has been adopted, such as the new Oakland program, the full phase in amount is shown with clarification in the bottom comment section of the chart. Fees on rentals are included only when they have been adopted as impact fees, following the *Palmer* California Supreme Court ruling which precludes on-site requirements and their in-lieu fee alternatives.

- Fees are expressed in different ways from one city to the next. Some fees are charged per square foot, some are a flat fee per market rate unit, and some are charged per affordable unit owed, which is almost always over $100,000 in the Bay Area.

- On-Site Requirement/Option for Rentals. Many city codes continue to include on-site requirement language for rental projects because codes have not been updated since the *Palmer* ruling and requirements are not being applied (except through negotiation). These requirements are not included in the chart.

- The income levels of the affordable units that are required are summarized in terms of both “eligibility” or “qualifying” levels and the pricing level that is used to establish the purchase price or rent level of the unit. The pricing level is the critical one insofar as the developer’s obligation is concerned. The most typical choice for pricing level is to be consistent with the affordable housing cost definitions in the California Health & Safety Code 50052.5 and 50053.

- Virtually all cities that have on-site requirements for for-sale residential projects without the choice of fee payment, do allow fee payment with special City Council approval. Therefore, the chart notes this feature only by way of a footnote. The City’s practice in granting such approvals may be more consequential than what may be written.

For more complete information on the programs, please consult the website and code language of the individual cities.

TABLE 3
COMPARISON OF AFFORDABLE HOUSING REQUIREMENTS - RESIDENTIAL
PARTICIPATING JURISDICTIONS: SANTA CLARA COUNTY[1]
AFFORDABLE HOUSING NEXUS ANALYSES

	Campbell	Los Altos	Milpitas	Santa Clara City
Year Adopted / Updated	2006	Est. 1995, update 2009	2015	Est. 1991, update 2006
Minimum Project Size				
For In-lieu/Impact Fee	**FS,** <6du/Ac: 10 units FS, >6 du/Ac: n/a	n/a	**FS/R:** 5 units	n/a
For Build Requirement	**FS,** <6du/Ac: n/a **FS,** >6du/Ac: 10 units	**FS:** 5 units	no build req.	**FS:** 10 units
Impact / In-Lieu Fee	**FS:** $34.50 /sf	none	**FS/R:** 5% building permit value	**FS:** *Fractional units only* (Market Value - Affordable Price) x fractional unit
Onsite Requirement/Option				
Percent of Total Units	**FS:** 15%	**FS:** 10%	**FS/R:** 5%	**FS:** 10%
Income Level for Qualification	FS: Low and Moderate	FS: Moderate If <10 units, one unit at Low.	FS/R: Low and Very Low	**FS:** Very Low to Moderate
Income Level for Pricing(% AMI) [homeowner or renter housing cost]	FS: Moderate @ 110% Low @ 70%	Not Specified.	Not specified.	Not specified.
Fractional Units	<0.5: round down, >0.5: round up	provide unit	not specified	pay fee or provide unit
Comments	code does not specify allocation between Low and Moderate; staff indicates approximately 50/50 allocation has been the experience.	<4 du/Ac: no requirement. Also, requirements may be waived by City Council for projects of 9 units or less.	In-lieu/impact fee introduced as temporary measure while City prepares formal nexus study. Fee has not yet been assessed.	Policy established in the City's General Plan; compliance voluntary but encouraged.

Abbreviations:
R = Rental
du = Dwelling Unit
FS = For Sale
Ac = Acre
/sf = per square foot
AMI =Area Median Income
MF = Multi-Family
SF = Single Family

1. Santa Clara County and Saratoga do not currently have an inclusionary housing requirement.

Notes: 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.
Virtually all cities that do not allow fee payment by right allow developers to seek Council approval of fee payment instead of on-site units, in addition to providing options for off-site construction and land dedication.

Prepared by Keyser Marston Associates, Inc. April 2016.
Filename: \\SF-FS2\wp\19\19312\001\Summary tables\CAMPBELL Inclusionary comparison chart 8-22-16; 2scc; 8/26/2016;kf

TABLE 3
COMPARISON OF AFFORDABLE HOUSING REQUIREMENTS - RESIDENTIAL
NON-PARTICIPATING JURISDICTIONS: SANTA CLARA COUNTY
AFFORDABLE HOUSING NEXUS ANALYSES

	Cupertino	Mountain View	San Jose	Sunnyvale
Year Adopted / Updated	Est. 1992, update 2015	Est. 1999, rental impact fee in 2012, update 2015	Est. 2010. Rental Fee 2014.	Update 2015
Minimum Project Size				
For In-lieu/Impact Fee	**FS/R:** 1 unit	**FS:** 3 units **R:** 5 units **Mixed FS/R:** 6 units	**FS:** 20 units **R:** 3 units	**FS:** 8 units **R:** 4 units
For Build Requirement	**FS:** 7 units	**FS:** 10 units	no build req.	**FS:** 20 units
Impact / In-Lieu Fee	**FS:** *Detached* $15/sf, *Attached* $16.50/sf, *MF* $20/sf **R:** *<35 du/Ac* $20/sf, *>35 du/Ac* $25/sf	**FS:** 3% of sales price **R:** $17/sf	**FS:** based on affordability gap **R:** $17 /sf	**FS:** 7% of sales price **R:** $8.50/sf (4-7 units), $17/sf (8+ units)
Onsite Requirement/Option				
Percent of Total Units	**FS/R:** 15%	**FS/R:** 10%	**FS:** 15%	**FS:** 12.5% **R:** On-site credits (see below)
Income Level for Qualification	FS: 1/2 Median 1/2 Moderate R: 40% Low, 60% Very Low	FS: Median R: Low	FS: Moderate	FS: Moderate
Income Level for Pricing(% AMI) [homeowner or renter housing cost]	**FS:** Moderate @ 110%, Median @ 90% **R:** Low @ 60%, Very Low @ 50% AMI	**FS:** One unit: 90% AMI Multiple units: 80 - 100% AMI **R:** Ranges btwn 50-80% AMI	Moderate @ 110% AMI	Moderate @ 100% AMI
Fractional Units	<.5 unit owed: pay fee .5+ unit owed: round up	pay fee or provide unit	**R:** pay fee **FS:** pay fee or provide unit	pay fee or provide unit
Comments			Inclusionary zoning to be reinstated 2016. Downtown highrises exempt from impact fee for five years.	On-site rental: developer credited $300,000/du (Very Low), $150,000/du (Low). Projects with fewer than 20 units are eligible to pay in-lieu fee.

Abbreviations:
R = Rental
du = Dwelling Unit
FS = For Sale
Ac = Acre
/sf = per square foot
AMI =Area Median Income
MF = Multi-Family
SF = Single Family

Notes: 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.
Virtually all cities that do not allow fee payment by right allow developers to seek Council approval of fee payment instead of on-site units, in addition to providing options for off-site construction and land dedication.

Prepared by Keyser Marston Associates, Inc. April 2016.
Filename: \\SF-FS2\wp\19\19312\001\Summary tables\CAMPBELL Inclusionary comparison chart 8-22-16; 4comp.scc; 8/26/2016;kf

TABLE 3
COMPARISON OF AFFORDABLE HOUSING REQUIREMENTS - RESIDENTIAL
PARTICIPATING JURISDICTIONS: ALAMEDA COUNTY[1]
AFFORDABLE HOUSING NEXUS ANALYSES

	Albany	Fremont	Hayward	San Leandro	Union City
Year Adopted / Updated	2005	Est. 2002, update 2015, full phase-in 2017	Update 2015	2004	Est. 2001, update 2006
Minimum Project Size					
For In-lieu/Impact Fee	**FS:** 5 units	**FS/R:** 2 units	**FS/R:** 20 units	**FS:** 2 units	n/a
For Build Requirement	**FS:** 7 units	no build req.	no build req.	**FS:** 7 units	**FS:** 1 unit
Impact / In-Lieu Fee	**FS:** (Market Value - Affordable Price) x units owed	**FS:** *Attached* $27.00 no units, $18.50 w/ aff units *Detached* $26.00 no units, $17.50 w/ aff units, **R:** $17.50 no map, $27.00 w/ map	**FS:** *Attached* $3.24/sf, *Detached* $4/sf **R:** $3.24/sf	**FS:** (Median Sale Price - Affordable Price) x units owed	**FS:** <7 units: $160,000 /du owed, 7+ units: $180 /sf owed
Onsite Requirement/Option					
Percent of Total Units	**FS:** 15%	**FS:** *Attached* 3.5% plus $18.50/sf *Detached* 4.5% plus $17.50/sf **R:** 12.9%	**FS:** *Attached* 7.5%, *Detached* 10% **R:** *Attached* 7.5%, *Detached* 10%	**FS:** 15%	**FS:** 15%
Income Level for Qualification	FS: <10 units: Low 10+ units: 50% Low, 50% Very Low	FS: Moderate Income R: 19% Extremely Low, 33% Very Low, 25% Low, 24% Moderate	FS: Moderate Income R: 50% Low, 50% Very Low	FS: 60% Moderate, 40% Low	FS: 60% Moderate, 30% Median, 10% Low.
Income Level for Pricing(% AMI) [homeowner or renter housing cost]	Not specified.	FS: Moderate @ 110% AMI (120% w/approval) R: Low @ 60% AMI, Very Low @ 50% AMI, Extremely Low @ 30% AMI	**FS:** Moderate **@** 110% AMI **R:** Low @ 60% AMI Very Low @ 50% AMI	FS: Moderate **@** 110% AMI, Low @ 70% AMI	FS: Moderate **@** 110% AMI, Median not specified (80-100%) Low @ 70% AMI
Fractional Units	<0.5: pay fee, >0.5: provide unit	pay fee or provide unit	pay fee or provide unit	<0.5: round down, >0.5: round up	pay fee or provide unit
Comments		Full phase-in levels shown. Rental projects with a subdivision map pay the higher fee. FS projects req. to provide onsite units and pay fee.		Fee calculated based on current median sales price. No fees owed since 2008.	Fee payment with City approval only. Single-unit, owner occupied projects exempt.

Abbreviations:
R = Rental
du = Dwelling Unit
FS = For Sale
Ac = Acre
/sf = per square foot
AMI =Area Median Income
MF = Multi-Family
SF = Single Family

1. Alameda County (not displayed) does not currently have an affordable housing requirement.

Notes: 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.
Virtually all cities that do not allow fee payment by right allow developers to seek Council approval of fee payment instead of on-site units, in addition to providing options for off-site construction and land dedication.

Prepared by Keyser Marston Associates, Inc. April 2016.
Filename: \\SF-FS2\wp\19\19312\001\Summary tables\CAMPBELL Inclusionary comparison chart 8-22-16; 1ac; 8/26/2016;kf

TABLE 3
COMPARISON OF AFFORDABLE HOUSING REQUIREMENTS - RESIDENTIAL
NON-PARTICIPATING JURISDICTIONS: ALAMEDA COUNTY
AFFORDABLE HOUSING NEXUS ANALYSES

	Alameda (city)	Berkeley	Dublin	Oakland	Pleasanton
Year Adopted / Updated	2003	Est. 1986, rental fee 2011, update proposed 2016	Est. 1997, update 2005	2016	Est. 1978, update 2000.
Minimum Project Size					
For In-lieu/Impact Fee	**FS:** 5 units	**FS/R:** 5 units	**FS/R:** 20 units	**FS/R:** 1 unit	**FS/R:** 15 units
For Build Requirement	**FS:** 10 units	no build req.	**FS/R:** 20 units (partial)	no build req.	no build req.
Impact / In-Lieu Fee	**FS:** $18,431/du	**FS:** 62.5% x (Sale Price - Affordable Price) x units owed **R:** *Current* $28,000/du *Proposed* $34,000/du	**FS/R:** $127,061 per aff unit owed (in addition to on-site)	**FS/R:** *MF* $12,000-$22,000, *SF Attached* $8,000-$20,000, *SF Detached* $8,000-$23,000	**FS/R:** *MF* $2,783/du, *SF* <1,500 sq ft: $2,783/du, >1,500 sq ft: $11,228/du
Onsite Requirement/Option					
Percent of Total Units	**FS:** 15%	**FS:** 20% **R:** *Current* 10%, *Proposed* 20%	**FS/R:** 7.5%, plus fee (12.5% without fee)	**FS/R:** *Option A* 5% or *Option B* 10%	**FS/R:** *MF* 15% *SF* 20%
Income Level for Qualification	**FS**: 47% Moderate, 27% Low, 27% Very Low	FS: Low R: *Current* Very Low *Proposed* 1/2 Very Low, 1/2 Low	FS: 60% Moderate, 40% Low R: 50% Moderate, 20% Low, 30% Very Low	FS/R: *Option A* Very Low *Option B* Low and Moderate	FS: *MF* Low *SF* Moderate
Income Level for Pricing(% AMI) [homeowner or renter housing cost]	**FS:** Moderate @ 110%, Low @ 70%, Very Low @ 50%	**FS:** Low @ 80% **R:** Low at 81%, Very Low at 50%.	**FS:** Moderate @ 110%, Low @ 70% R: Moderate @ 110%, Low @ 80%, Very Low @ 50%	FS: Moderate @ 110%, Low @ 70%, Very Low @ 50% R: Moderate 110%, Low @ 60%, Very Low @ 50%	**FS:** *MF* 80% AMI *SF* 120% AMI
Fractional Units	<0.5: round down, >0.5: round up	pay fee	<0.5: round down, >0.5: round up	pay fee or provide unit	<0.5: round down, >0.5: round up
Comments		Council has directed City Manager to draft ordinance with proposed changes to rental program.		Fees vary by neighborhood. Fees phased in through 2020. Full fee levels shown. On-site: May choose Option A or B. Based on draft ordinance prepared for April 19, 2016 council meeting.	

Abbreviations: R = Rental; du = Dwelling Unit; FS = For Sale; Ac = Acre; /sf = per square foot; AMI =Area Median Income; MF = Multi-Family; SF = Single Family

Notes: 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.
Virtually all cities that do not allow fee payment by right allow developers to seek Council approval of fee payment instead of on-site units, in addition to providing options for off-site construction and land dedication.

Prepared by Keyser Marston Associates, Inc. April 2016.
Filename: \\SF-FS2\wp\19\19312\001\Summary tables\CAMPBELL Inclusionary comparison chart 8-22-16; 3comp.ac; 8/26/2016;kf

D. Non-Residential Development Cost Context

The non-residential development cost context analysis considers the impacts a new affordable housing fee could have on the cost of development for new office, retail, hotel, and light industrial projects in Santa Clara County. The analysis enables an understanding of the relative cost burdens new fees have on various types of commercial and industrial development projects and can be useful in scaling fees by type of project.

For commercial and industrial development, the analysis considers the potential fee as a percentage of total development costs rather than the full feasibility analysis included for the multi-family apartments. One of the primary reasons a full feasibility analysis is not performed for the commercial land uses is because there is typically greater variation in the cost and rent structures for commercial projects than for housing projects. Development costs and rents can vary widely for office and retail projects due to the specialized nature of tenant improvements and lease terms from one tenant to another. Costs and revenues also vary widely for hotel projects due to the fact that hotel products range from lower cost limited service and budget hotels to highly amenitized full service and boutique hotels. Finally, affordable housing requirements applicable to non-residential development typically represents a smaller percentage of overall project cost compared to residential requirements. For these reasons, the utility of a full feasibility analysis for commercial projects is generally more limited than for housing projects. Instead an understanding of the total development cost context has generally proved sufficient to guide the selection of fee levels on non-residential projects.

1. Commercial Market Context

Like the residential market, commercial projects in Santa Clara County have experienced strengthening conditions in recent years due to robust job growth and the strength of the overall regional economy. According to a recent market report from Newmark Cornish & Carey, as of Q1 2016 there was about 9.5 million square feet of office development in construction in Silicon Valley out of a total office inventory of 75 million square feet. New retail, hotel and industrial projects are also being built or are in the planning stages in various parts of the county.

2. Development Cost Analysis

For the development cost analysis, KMA utilized the following four commercial prototypes.

- Office development with structured parking at 1.00 floor area ratio (FAR)
- Hotel development with surface and structured parking at 1.00 FAR
- Retail development with surface parking at 0.30 FAR
- Light industrial development with surface parking at 0.40 FAR

In preparing these prototypes it is acknowledged that there could be some differences in overall density from one jurisdiction to another as these prototypes are intended to reflect averages for

the participating jurisdictions in Santa Clara County. However, for purposes of the development cost assessment it is not necessary to analyze every variation of project density or building prototype being built or proposed to be built. The utility of the analysis lies with an understanding of the general range of development costs for new commercial projects and the impact that a new fee can have relative to those costs.

In Campbell, the non-residential floor area ratios (FAR) of 1.0 assumed for office and hotel are permitted only within certain designated areas of the City including Pruneyard / Creekside, North of Campbell and South of Campbell areas and are subject to criteria regarding parcel size. For lower density projects with surface parking, development costs would generally be lower than the estimates for the higher density projects that were analyzed.

The estimates of total development costs for the commercial prototypes are shown in the following table. The costs include estimates for land acquisition, direct construction costs, and indirect and financing costs of development. In assembling the development cost estimates, KMA utilized a variety of data sources, including the following:

- Land appraisals, CoStar land comps;
- Third party construction cost data sources such as RS Means and Engineering News Record (ENR);
- Pro forma data for current non-residential projects in the Bay Area.

Non-Residential Development Costs
Santa Clara County Participating Jurisdictions

	Office		Hotel		Retail		Light Industrial	
Building Square Feet	100,000		75,000		75,000		100,000	
Hotel Rooms			125 rooms					
Parking	Structure		Surface & Structure		Surface		Surface	
FAR	1.00 FAR		1.00 FAR		0.30 FAR		0.40 FAR	
Land Area	2.30 acres		1.72 acres		5.74 acres		5.74 acres	
	$/SF	Total	$/SF	Total	$/SF	Total	$/SF	Total
Land Acquisition	$115	$11,500,000	$45	$3,380,000	$200	$15,000,000	$88	$8,750,000
	$115	/land sf	$45	/land sf	$60	/land sf	$35	/land sf
Directs	$348	$34,750,000	$227	$17,000,000	$175	$13,130,000	$143	$14,250,000
Indirects								
A&E	$21	$2,090,000	$14	$1,020,000	$11	$790,000	$9	$860,000
FF&E/Tenant Improvements	$59	$5,850,000	$58	$4,380,000	$36	$2,700,000	$19	$1,900,000
Fees & Permits (excl. Afford)	$5	$540,000	$8	$590,000	$7	$520,000	$5	$480,000
Other Indirects & Financing	$33	$3,280,000	$21	$1,580,000	$26	$1,930,000	$16	$1,570,000
Total Indirects & Financing	$118	$11,760,000	$101	$7,570,000	$79	$5,940,000	$48	$4,810,000
Total Costs	$580	$58,010,000	$373	$27,950,000	$454	$34,070,000	$278	$27,810,000
Total Cost Range	$525 - $625/sf		$325 - $425/sf		$400 - $500/sf		$250 - $300/sf	

As shown, total development costs for the non-residential prototypes range from a low of approximately $250-$300/square foot for the light industrial prototype to a high of approximately $525-$625 for the office prototype.

It should be noted that land costs in the table above are expressed two different ways: per square foot of building and per square foot of land. While office has the highest estimated land cost per square foot of land, retail has the highest land cost per square foot of building. Land costs are intended as broad averages and variation based on location can be expected. For example, a downtown location would generally be expected to have higher land costs. For this reason, total development costs are presented as ranges in recognition of expected site-specific and project-specific variations.

3. Affordable Housing Fees Supported

In general, affordable housing fees on non-residential projects fall within a range of 1% to 5% of total development costs, with the upper portion of the range generally reserved for cities that have very strong market conditions driving non-residential development projects. As noted in Section E., current affordable housing fees on non-residential projects are as high as $20-$25/square foot (for office projects) in Santa Clara County jurisdictions that have such fees. Current fees for other non-residential projects, such as retail and hotel, tend to be more in the $5-$10 / square foot range.

The table below summarizes the range of potential fees on non-residential projects expressed as a percentage of total development cost. As an example, at 3% of total development cost, a new housing fee would range from approximately $8 / square foot for light industrial uses to $17/square foot for office uses. As is common in jobs housing linkage fee programs, light industrial projects tend to have lower fees than higher intensity/higher value projects such as office projects because it is generally more difficult for lower cost projects to absorb new fees. Exceptions include some Silicon Valley cities where distinctions between office and industrial have become blurred and both are charged at the same rate.

Relative Fee Burdens*

	Office	Hotel	Retail	Light Industrial
Total Cost Range	$525 - $625/sf	$325 - $425/sf	$400 - $500/sf	$250 - $300/sf
Fee at 1% of Total Cost	$5.75	$3.75	$4.50	$2.75
Fee at 2% of Total Cost	$11.50	$7.50	$9.00	$5.50
Fee at 3% of Total Cost	$17.25	$11.25	$13.50	$8.25
Fee at 4% of Total Cost	$23.00	$15.00	$18.00	$11.00
Fee at 5% of Total Cost	$28.75	$18.75	$22.50	$13.75

*Fees calculated at 1-5% of mid-point of cost range.

As was done in the apartment feasibility section of this report, the following table summarizes how newly adopted fees can be absorbed by relatively minor improvements in development

economics over time. For example, a newly added fee of $20/square foot for the office prototype could be absorbed by a roughly 3% increase in rental income ($20/square foot x 0.15%), a roughly 6% decrease in direct construction costs ($20/square foot x 0.29%), or a roughly 17% decrease in land values ($20/square foot x 0.87%). It is noted however that construction costs and rents tend to move in the same direction. Therefore, increases in rents would need to exceed increases in costs in order to produce a net gain in a project's economics.

Potential Market Adjustments to Absorb Every $1/SF Fee

	Office	Hotel	Retail	Light Industrial
Increase in Rents/Income	0.15%	0.23%	0.19%	0.31%
Decrease in Direct Costs	0.29%	0.44%	0.57%	0.70%
Decrease in Land Values	0.87%	2.22%	0.50%	1.14%

E. Jobs Housing Linkage Fees in Other Jurisdictions

Information on other jobs housing linkage fee programs in nearby or comparable cities is often helpful context in considering new or updated fees. The following section provides information assembled regarding other programs in the Bay Area and elsewhere in California including information on customized features such as size thresholds, exemptions, and build options.

More than 30 cities and counties in California have commercial linkage fees, with the majority of these programs within the Bay Area and greater Sacramento. In Southern California, a few cities have linkage fee programs, of which San Diego is the largest example. Several communities in Massachusetts have linkage fees, including Boston and Cambridge. Seattle recently expanded its linkage fee program city-wide. Boulder, Colorado adopted a new city-wide program last year. Portland and Denver are each in the process of exploring new linkage fee adoptions.

Silicon Valley and the Peninsula, which has some of the strongest real estate market conditions in the Bay Area, is where many of the jurisdictions with the highest fee levels are found. For office, fee levels range from $15 (Sunnyvale) to $25 per square foot (Mountain View). Several cities have recently updated fee levels (Cupertino, Mountain View, Sunnyvale), or newly adopted fees (Redwood City). For retail and hotel, fee ranges are much broader as some jurisdictions have adopted similar fee levels across all building types while others have lower fee levels for retail and hotel.

Within the East Bay, fees have been adopted at a more moderate range. For office, fee levels for communities in the inner East Bay (west of the hills) range from $3.59 (Newark) to $5.24 (Oakland). Retail fees range from $2.30 (Alameda) to $4.50 (Berkeley). Oakland's program covers only office and warehouse and exempts other uses such as retail.

The table on the following page provides an overview of fee levels for selected examples in

Santa Clara County, the Peninsula, and the East Bay. The table identifies those jurisdictions that have non-residential linkage fees in place, the numerous jurisdictions in the East Bay, Santa Clara County, and on the Peninsula without such fees have not been listed. A more complete overview of these programs, and many others, is presented on Table 4 (page 45).

Affordable Housing Fee Levels in Selected Communities

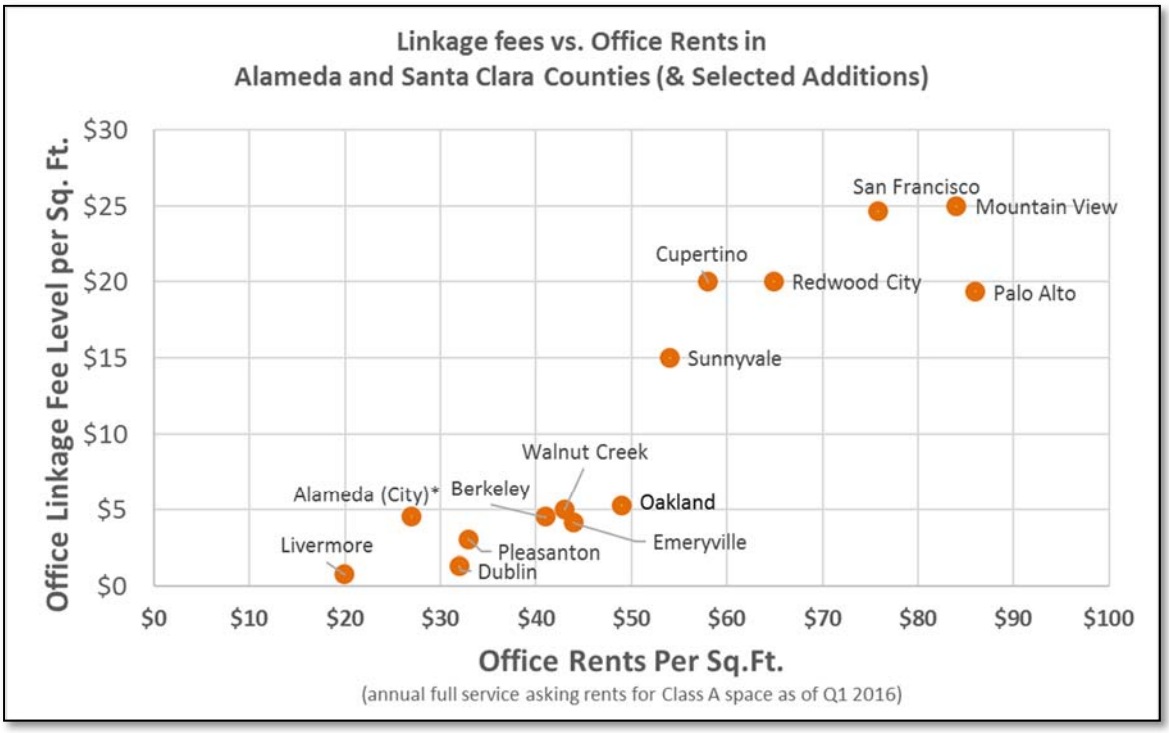
Non-Residential Linkage Fees	Office $/SF	Retail $/SF	Hotel $/SF	Industrial $/SF
Santa Clara Co. & Peninsula				
Mountain View	$25.00	$2.68	$2.68	$25.00
Cupertino	$20.00	$10.00	$10.00	$20.00
Palo Alto	$19.85	$19.85	$19.85	$19.85
Sunnyvale	$15.00	$7.50	$7.50	$15.00
San Francisco	$24.61	$22.96	$18.42	$19.34
Redwood City	$20.00	$5.00	$5.00	N/A
Menlo Park	$15.57	$8.45	$8.45	$8.45
average*	$20.00	$10.92	$10.27	$17.94
East Bay: West of Hills				
Oakland	$5.24	N/A	N/A	N/A
Berkeley	$4.50	$4.50	$4.50	$2.25
Alameda (City)	$4.52	$2.30	$1.85	$0.78
Emeryville	$4.10	$4.10	$4.10	$4.10
average*	$4.59	$3.63	$3.48	$2.38
East Bay: East of Hills				
Walnut Creek	$5.00	$5.00	$5.00	N/A
Pleasanton	$3.04	$3.04	$3.04	$3.04
Dublin	$1.27	$1.02	$0.43	$0.49
Livermore	$0.76	$1.19	$1.00	$0.24
average*	$2.52	$2.56	$2.37	$1.26

N/A = No fee or no applicable category.

*Average is for cities that have a fee in the applicable category.

As a way to provide context in terms of the market conditions in each of the communities, the chart on the following page shows office linkage fees (the building type that usually has the highest fees) in relation to office rents by city. Office rents are an indicator of market strength and major driver of real estate values.

Office Linkage Fees vs. Average Office Rents in Selected Communities



*Rents for City of Alameda apply to Class B/C space (Class A rents not aviailable)
Sources: Office rents from market research reports prepared by Colliers International.

By way of comparison, asking rents for Class A office space in Campbell are currently around $50 per square foot.

Ordinance or Program Features

Linkage fee programs often includes features to address a jurisdiction's policy objectives or specific concerns. The most common are:

- *Minimum Threshold Size* – A minimum threshold sets a building size over which fees are in effect. Programs with low fees often have no thresholds and all construction is subject to the fee. Thresholds, which reduce fees for smaller projects, are more common for programs with more significant fees. Some jurisdictions establish a building size over which the fee applies. Sometimes the fee applies to the whole building, and sometimes the fee applies only to the square foot area over the threshold. Thresholds are often employed to minimize costs for small infill projects in older commercial areas, when such infill is a policy objective. There is also some savings in administrative costs. The disadvantage is lost revenue. Oakland and Berkeley are examples of communities employing thresholds while Alameda, Newark, and others do not. Mountain View has a reduced charge for the first 10,000 square feet of office space and the first 25,000 square feet of retail or hotel development.

- *Geographic Area Variations and Exemptions* – Some cities with linkage fee programs exclude specific areas such as redevelopment areas or have fees that vary based on geography. A geographic area variation can also be used to adjust the fee in jurisdictions where there is a broad difference in economic health from one subarea to the next. This is generally more common among large cities with a diverse range of conditions.

- *Specific Use Exemptions* – Some cities charge all building types while others choose to exempt specific uses. A common exemption is for buildings owned by non-profits which typically encompasses religious, educational/institutional, and hospital building types. Some programs identify specific uses as exempt such as schools and child care centers.

A more complete listing of the programs surveyed along with information about ordinance features such as exemptions and thresholds is contained in Table 4 on page 45.

TABLE 4

SUMMARY OF JOBS HOUSING LINKAGE FEE PROGRAMS, CALIFORNIA

Jurisdiction	Yr. Adopted/ Updated	Fee Level (per Sq.Ft. unless otherwise noted)		Thresholds & Exemptions	Build Option/ Other	Market Strength	Comments
SAN FRANCISCO, PENINSULA, SANTA CLARA COUNTY							
San Francisco Population: 829,000	1981 Updated 2002, 2007	Retail / Entertainment Hotel Production Dist. Repair Office Research and Development Small Enterprise Workspace	$22.96 $18.42 $19.34 $24.61 $16.39 $19.34	25,000 gsf threshold Exempt: freestanding pharmacy < 50,000 SF; grocery < 75,000	Yes, may contribute land for housing.	Very Substantial	Fee is adjusted annually based on the construction cost increases.
City of Palo Alto Population: 66,000	1984 Updated 2002	Nonresidential Dvlpmt	$19.85	Churches; universities; recreation; hospitals, private educational facilities, day care and nursery school, public facilities are exempt	Yes	Very Substantial	Fee is adjusted annually based on CPI.
City of Menlo Park Population: 33,000	1998	Office & R&D Other com./industrial	$15.57 $8.45	10,000 gross SF threshold Churches, private clubs, lodges, fraternal orgs, public facilities and projects with few or no employees are exempt.	Yes, preferred. May provide housing on- or off-site.	Very Substantial	Fee is adjusted annually based on CPI.
City of Sunnyvale Population: 146,000	1984 Updated 2003 and 2015.	Industrial, Office, R&D: Retail, Hotel	$15.00 $7.50	Office fee is 50% on the first 25,000 SF of building area. Exemptions for Child care, education, hospital, non-profits, public uses.	N/A	Very Substantial	Fee is adjusted annually based on CPI.
Redwood City Population: 80,000	2015	Office Hotel Retail & Restaurant	$20.00 $5.00 $5.00	5,000 SF threshold 25% fee reduction for projections paying prevailing wage. Schools, child care centers, public uses exempt.	Yes. Program specifies number of units per 100,000 SF.	Very Substantial	Fee is adjusted annually based on ENR.
City of Mountain View Population: 77,000	Updated 2002 / 2012 /2014	Office/High Tech/Indust. Hotel/Retail/Entertainment.	$25.00 $2.68	Fee is 50% on building area under thresholds: Office <10,000 SF Hotel <25,000 SF Retail <25,000 SF	Yes	Very Substantial	Fee is adjusted annually based on CPI.
City of Cupertino Population: 60,000	1993, 2015	Office/Industrial/R&D Hotel/Commercial/Retail	$20.00 $10.00	No minimum threshold.	N/A	Very Substantial	Fee is adjusted annually based on CPI.

Note: This chart has been assembled to present an overview, and as a result, terms are simplified. The information is recent but not all data has been updated as of the date of this report. In some cases, fees are adjusted by an index (such as CPI) which may not be reflected. For use other than general comparison, please consult the code and staff of the jurisdiction.

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Jurisdiction	Yr. Adopted/ Updated	Fee Level (per Sq.Ft. unless otherwise noted)		Thresholds & Exemptions	Build Option/ Other	Market Strength	Comments
EAST BAY							
City of Walnut Creek Population: 66,000	2005	Office, retail, hotel and medical	$5.00	First 1,000 SF no fee applied.	Yes	Very Substantial	Reviewed every five years.
City of Oakland Population: 402,000	2002	Office/ Warehouse	$5.24	25,000 SF exemption	Yes - Can build units equal to total eligible SF times .00004	Substantial	Fee due in 3 installments. Fee adjusted with an annual escalator tied to residential construction cost increases.
City of Berkeley Population: 116,000	1993 2014	Office Retail/Restaurant Industrial/Manufacturing Hotel/Lodging Warehouse/Storage Self-Storage R&D	$4.50 $4.50 $2.25 $4.50 $2.25 $4.37 $4.50	7,500 SF threshold.	Yes	Substantial	Annual CPI increase. May negotiate fee downward based on hardship or reduced impact.
City of Emeryville	2014	All Commercial	$4.10	Schools, daycare centers.	Yes	Substantial	Fee adjusted annually.
City of Alameda Population: 76,000	1989	Retail Office Warehouse Manufacturing Hotel/Motel	$2.30 $4.52 $0.78 $0.78 $1,108	No minimum threshold	Yes. Program specifies # of units per 100,000 SF	Moderate	Fee may be adjusted by CPI.
City of Pleasanton Population: 73,000	1990	Commercial, Office & Industrial	$3.04	No minimum threshold	Yes	Moderate	Fee adjusted annually.
City of Dublin Population: 50,000	2005	Industrial Office R&D Retail Services & Accommodation	$0.49 $1.27 $0.83 $1.02 $0.43	20,000 SF threshold	N/A	Moderate	
City of Newark Population: 44,000		Commercial Industrial	$3.59 $0.69	No min threshold Schools, recreational facilities, religious institutions exempt.	Yes	Moderate	Revised annually
City of Livermore Population: 84,000	1999	Retail Service Retail Office Hotel Manufacturing Warehouse Business Park Heavy Industrial Light Industrial	$1.19 $0.90 $0.76 $583/ rm $0.37 $0.11 $0.76 $0.38 $0.24	No minimum threshold Church, private or public schools exempt.	Yes; negotiated on a case-by-case basis.	Moderate	

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MARIN, NAPA, SONOMA, SANTA CRUZ							
County of Santa Cruz Population: 267,000	2015	All Non-Residential	$2.00	No minimum threshold	N/A	Substantial	
County of Marin Population: 257,000	2003	Office/R&D	$7.19	No minimum threshold	Yes, preferred.	Substantial	
		Retail/Rest.	$5.40				
		Warehouse	$1.94				
		Hotel/Motel	$1,745/rm				
		Manufacturing	$3.74				
San Rafael Population: 59,000	2005	Office/R&D	$7.64	5,000 SF threshold. Mixed use projects that provide affordable housing are exempt.	Yes. Program specifies number of units per 1,000 SF.	Substantial	
		Retail/Rest./Pers. Services	$5.73				
		Manufacturing/LI	$4.14				
		Warehouse	$2.23				
		Hotel/Motel	$1.91				
Town of Corte Madera Population: 9,000	2001	Office	$4.79	No minimum threshold	N/A	Substantial	
		R&D lab	$3.20				
		Light Industrial	$2.79				
		Warehouse	$0.40				
		Retail	$8.38				
		Com Services	$1.20				
		Restaurant	$4.39				
		Hotel	$1.20				
		Health Club/Rec	$2.00				
		Training facility/School	$2.39				
City of St. Helena Population: 6,000	2004	Office	$4.11	Small childcare facilities, churches, non-profits, vineyards, and public facilities are exempt.	Yes, subject to City Council approval.	Substantial	
		Comm./Retail	$5.21				
		Hotel	$3.80				
		Winery/Industrial	$1.26				
City of Petaluma Population: 59,000	2003	Commercial	$2.19	N/A	Yes, subject to City Council approval.	Moderate/ Substantial	Fee adjusted annually by ENR construction cost index.
		Industrial	$2.26				
		Retail	$3.78				
County of Sonoma Population: 492,000	2005	Office	$2.64	First 2,000 SF exempt Non-profits, redevelopment areas exempt	Yes. Program specifies number of units per 1,000 SF.	Moderate	Fee adjusted annually by ENR construction cost index.
		Hotel	$2.64				
		Retail	$4.56				
		Industrial	$2.72				
		R&D Ag Processing	$2.72				
City of Cotati Population: 7,000	2006	Commercial	$2.08	First 2,000 SF exempt Non-profits exempt.	Yes. Program specifies units per 1,000 SF	Moderate	Fee adjusted annually by ENR construction cost index.
		Industrial	$2.15				
		Retail	$3.59				
County of Napa Population: 139,000	Updated 2014	Office	$5.25	No minimum threshold Non-profits are exempt	Units or land dedication; on a case by case basis.	Moderate / Substantial	
		Hotel	$9.00				
		Retail	$7.50				
		Industrial	$4.50				
		Warehouse	$3.60				
City of Napa Population: 79,000	1999	Office	$1.00	No minimum threshold Non-profits are exempt	Units or land dedication; on a case by case basis.	Moderate/ Substantial	Fee has not changed since 1999. Increases under consideration.
		Hotel	$1.40				
		Retail	$0.80				
		Industrial, Wine Pdn	$0.50				
		Warehouse (30-100K)	$0.30				
		Warehouse (100K+)	$0.20				

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SACRAMENTO AREA						
City of Sacramento Population: 476,000	1989 Most recent update, 2005	Office $2.25 Hotel $2.14 R&D $1.91 Commercial $1.80 Manufacturing $1.41 Warehouse/Office $0.82	No minimum threshold Mortuary, parking lots, garages, RC storage, Christmas tree lots, B&Bs, mini-storage, alcoholic beverage sales, reverse vending machines, mobile recycling, and small recyclable collection facilities	Pay 20% fee plus build at reduced nexus (not meaningful given amount of fee)	Moderate	North Natomas area has separate fee structure
City of Folsom Population: 73,000	2002	Office, Retail, Lt Industrial, and Manufacturing $1.54 Up to 200,000 SF, 100% of fee; 200,000-250,000 SF, 75% of fee; 250,000-300,000 SF, 50% of fee; 300,000 and up, 25% of fee.	No minimum threshold Select nonprofits, small child care centers, churches, mini storage, parking garages, private garages, private schools exempt.	Yes Provide new or rehab housing affordable to very low income households. Also, land dedication.	Moderate/ Substantial	Fee is adjusted annually based on construction cost index
County of Sacramento Population: 1,450,000	1989	Office $0.97 Hotel $0.92 R&D $0.82 Commercial $0.77 Manufacturing $0.61 Indoor Recreational Centers $0.50 Warehouse $0.26	No minimum threshold Service uses operated by non-profits are exempt	N/A	Moderate	
City of Elk Grove Population: 158,000	1989 (inherited from County when incorporated)	Office none Hotel $1.87 Commercial $0.64 Manufacturing $0.72 Warehouse $0.77	No minimum threshold Membership organizations (churches, non-profits, etc.), mini storage, car storage, marinas, car washes, private parking garages and agricultural uses exempt	N/A	Moderate	Office fee currently waived due to market conditions.
Citrus Heights Population: 85,000	1989 (inherited from County when incorporated)	Office $0.97 Hotel $0.92 R&D $0.82 Commercial $0.77 Manufacturing $0.61 Indoor Recreational Centers $0.50 Warehouse $0.26	No minimum threshold Membership organizations (churches, non-profits, etc.), mini storage, car storage, marinas, car washes, private parking garages and agricultural uses exempt	N/A	Moderate	
Rancho Cordova Population: 67,000	1989 (inherited from County when incorporated)	Office $0.97 Hotel $0.92 R&D $0.82 Commercial $0.77 Manufacturing $0.61 Indoor Recreational Centers $0.50 Warehouse $0.26	No minimum threshold Membership organizations (churches, non-profits, etc.), mini storage, car storage, marinas, car washes, private parking garages and agricultural uses exempt	N/A	Moderate	

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SOUTHERN CALIFORNIA						
City of Santa Monica Population: 92,000	1984 Updated 2002, 2015	Retail $9.75 Office $11.21 Hotel/Lodging $3.07 Hospital $6.15 Industrial $7.53 Institutional $10.23 Creative Office $9.59 Medical Office $6.89	1,000 SF threshold Private schools, city projects, places of worship, commercial components of affordable housing developments exempt.	N/A	Very Substantial	Fees adjusted annually based on construction cost index.
City of West Hollywood Population: 35,000	1986	Non-Residential $8.00 (per staff increase from $4 to $8 anticipated for FY16-17)	N/A	N/A	Substantial	Fees adjusted by CPI annually
City of San Diego Population: 1,342,000	1990 Updated 2014	Office $1.76 Hotel $1.06 R&D $0.80 Retail $1.06	No minimum threshold Industrial/ warehouse, non-profit hospitals exempt.	Can dedicate land or air rights in lieu of fee	Substantial	

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KEYSER MARSTON ASSOCIATES

ATTACHMENT A

RESIDENTIAL NEXUS ANALYSIS

Prepared for:
City of Campbell

Prepared by:
Keyser Marston Associates, Inc.

August 2016

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I. INTRODUCTION

The following report is a Residential Nexus Analysis, an analysis of the linkages between the development of new residential units and the need for additional affordable housing in the City of Campbell. The report has been prepared by Keyser Marston Associates, Inc. (KMA) for the City of Campbell, pursuant to contracts both parties have with the Silicon Valley Community Foundation.

The analysis was prepared as part of a coordinated work program for twelve jurisdictions in Alameda and Santa Clara Counties. Silicon Valley Community Foundation with Baird + Driskell Community Planners organized and facilitated this multi-jurisdiction effort. Silicon Valley Community Foundation, which engaged KMA to prepare the analyses, serves as the main contracting entity with each participating jurisdiction, and has provided funding support for coordination and administration of the effort. Analyses in support of affordable housing impact fees on non-residential development were also prepared as part of the multi-jurisdiction work program.

Background, Context and Use of the Analysis

The analysis addresses market rate residential projects in Campbell and the various types of units that are subject to the City's Inclusionary Housing Ordinance at this time and potentially in the future. The nexus analysis quantifies the linkages between new market rate units and the demand for affordable housing in Campbell.

Campbell's Affordable Housing Ordinance was adopted in 2006 and incorporated in Code Section 21.24. The Ordinance requires that 15% of the total units in a new development be affordable to households at low and moderate income. The Ordinance applies to projects with ten or more units. An in lieu fee alternative of $34.50 per square is available to projects at a density of six units per acre or less. Since the 2009 *Palmer* case (further described below), the City has not had the ability to apply its inclusionary requirements to rental projects.

The nexus analysis provided herein enables the City to proceed with enactment of affordable housing impact fees applicable to residential development in the City of Campbell. The conclusions of the analysis represent maximum supportable or legally defensible impact fee levels based on the impact of new residential development on the need for affordable housing. Findings are not recommended fee levels.

Should the City wish to maintain its inclusionary program, requirements need not be bound by the findings of this nexus analysis in accordance with the ruling in *C.B.I.A.*, discussed below. If the program is modified to apply to smaller projects of six or fewer units,[1] it is recommended

[1] This recommended small project threshold may adjust if there were a change to the current 15% inclusionary requirement.

that applicable in-lieu fees be kept within nexus maximums given on-site compliance with inclusionary requirements may not be practical and so the fee becomes the default option for compliance. As of this writing, impact fees supported by a nexus study are the only option for implementation of affordable housing requirements for rental projects. This could change if the proposed "Palmer Fix," described below, restores the ability to implement inclusionary requirements for rental projects.

Background on Key Legal Cases

The following provides background regarding two key legal cases pertaining to inclusionary programs which in recent years have motivated many California cities to undertake residential nexus studies. This section is intended as general background only; nothing in this report should be interpreted as providing specific legal guidance, which KMA is not qualified to provide.

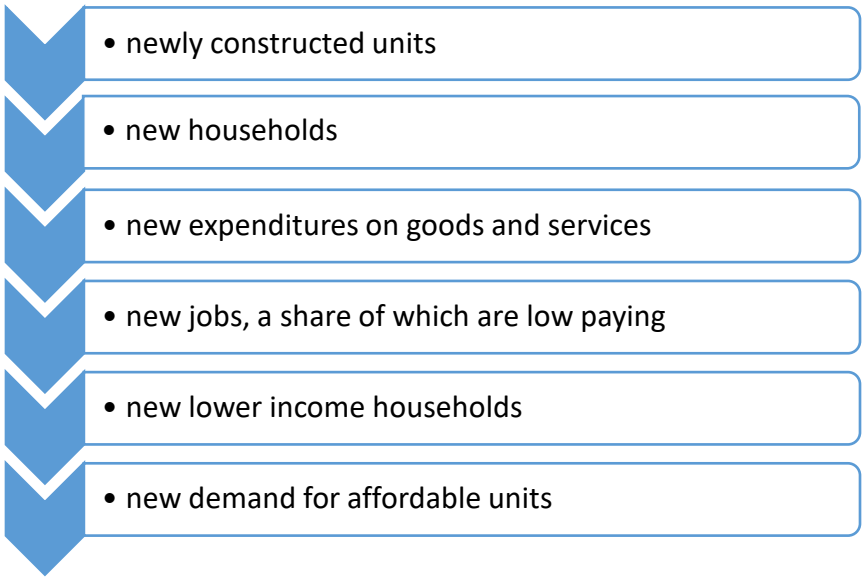
The *Palmer* case (Palmer/Sixth Street Properties L.P. v. City of Los Angeles [2009] 175 Cal. App. 4th 1396) was decided in 2009 and precluded California cities from requiring long term rent restrictions or inclusionary requirements on rental units. Since the *Palmer* ruling, many California cities have adopted affordable housing impact fees on rental projects supported by residential nexus studies similar to this one. At the current time, a bill pending in the California Legislature, Assembly Bill 2502, referred to as the "Palmer Fix" would, if adopted, restore the ability by California cities to apply inclusionary requirements to rental projects.

In *C.B.I.A.*, (California Building Industry Association v. City of San Jose, California Supreme Court Case No. S212072, June 15, 2015), also referred to as the San Jose Case, the California Building Industry Association challenged the City of San Jose's newly adopted inclusionary program. A core contention of C.B.I.A. was that the City's inclusionary program constituted an exaction that required a nexus study to support it. The case was pending in the courts from 2010 through February 2016. Ultimately, the case was decided by the California Supreme Court in favor of the City of San Jose, finding San Jose's inclusionary program to be a valid exercise of the City's power to regulate land use and not an exaction. The U.S. Supreme Court denied C.B.I.A.'s petition to review the case. While the case was pending, there was speculation that the courts would rule in favor of C.B.I.A. and this possibility was one of the motivations for cities to prepare residential nexus studies as an additional "backup" support measure for inclusionary programs.

The Nexus Concept

A residential nexus analysis demonstrates and quantifies the impact of new market rate housing development on the demand for affordable housing. The underlying nexus concept is that the newly constructed market rate units represent net new households in Campbell. These households represent new income in Campbell that will consume goods and services, either through purchases of goods and services or 'consumption' of government services. New consumption translates to jobs; a portion of the jobs are at lower compensation levels; low compensation jobs relate to lower income households that cannot afford market rate units in Campbell and therefore need affordable housing.

Nexus Analysis Concept



Methodology and Models Used

The nexus analysis methodology starts with the sales price or rental rate of a new market rate residential unit, and moves through a series of linkages to the gross income of the household that purchased or rented the unit, the income available for expenditures on goods and services, the jobs associated with the purchases and delivery of those services, the income of the workers doings those jobs, the household income of the workers and, ultimately, the affordability level of the housing needed by the worker households. 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 model 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 and middle-income households who cannot afford market rate housing in Campbell.

The IMPLAN model quantifies jobs generated at establishments that serve new residents directly (e.g., supermarkets, banks or schools), jobs generated by increased demand at firms which service or supply these establishments, and jobs generated when the new employees spend their wages in the local economy and generate additional jobs. The IMPLAN model estimates the total impact combined.

Net New Underlying Assumption

An underlying assumption of the analysis is that households that purchase or rent new units represent net new households in Campbell. If purchasers or renters have relocated from elsewhere in the city, vacancies have been created that will be filled. An adjustment to new construction of units would be warranted if Campbell 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 Campbell and the impacts generated by their consumption expenditures, it quantifies net new demands for affordable units to accommodate new worker households. As such, the impact results do not address nor in any way include existing deficiencies in the supply of affordable housing.

Geographic Area of Impact

The analysis quantifies impacts occurring within Santa Clara County. While much of the impact will occur within Campbell, some impacts will be experienced elsewhere in the county and beyond. The IMPLAN model computes the jobs generated within the county and sorts out those that occur beyond the county boundaries. The KMA Jobs Housing Nexus Model analyzes the income structure of jobs and their worker households, without assumptions as to where the worker households live.

In summary, the KMA nexus analysis quantifies all the job impacts occurring within Santa Clara County and related worker households. Job impacts, like most types of impacts, occur irrespective of political boundaries. And like other types of impact analyses, such as traffic, impacts beyond city boundaries are experienced, are relevant, and are important. See the Addendum: Additional Background and Notes on Specific Assumptions at the end of this report for further discussion.

Market Rate Residential Project Types

Five prototypical residential project types were selected by the City and KMA for analysis in this nexus study. The prototypes were intended to represent the range of product types currently being built in Campbell or which are expected in the future including:

- Large Lot Single Family;
- Small Lot Single Family;
- Townhome;
- Condominium; and
- Apartments.

Not all of these prototypes are active at the time of report preparation but all have the potential to become active at some point over the next five to ten years.

Affordability Tiers

The nexus analysis addresses the following four income or affordability tiers:

- Extremely Low Income: households earning up to 30% Area Median Income (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; and,
- Moderate Income: households earning over 80% AMI up to 120% of AMI.

Report Organization

The report is organized into the following sections:

- Section A presents information regarding the prototypical new market rate residential units and the estimated household income of purchases or renters of those units.

- Section B describes the IMPLAN model, which is used in the nexus analysis to translate household income into the estimated number of jobs in retail, restaurants, healthcare, and other sectors serving new residents.

- Section C presents the linkage between employment growth associated with residential development and the need for new lower income housing units required in each of the four income categories.

- Section D quantifies the nexus or mitigation cost based on the cost of delivering affordable units to new worker households in each of the four income categories.

- An Addendum section provides a supplemental discussion of specific factors in relation to the nexus concept.

- Appendix A contains the market survey.

- Appendix B includes detailed tables on worker occupations and compensation levels that are a key input into the analysis.

Disclaimers

This report has been prepared using the best and most recent data available at the time of the analysis. Local data and sources were used wherever possible. Major sources include the U.S. Census Bureau's American Community Survey, California Employment Development Department (EDD) and the IMPLAN model. While we believe all sources utilized are sufficiently sound and accurate for the purposes of this analysis, we cannot guarantee their accuracy. Keyser Marston Associates, Inc. assumes no liability for information from these and other sources.

II. RESIDENTIAL NEXUS ANALYSIS

A. 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 Campbell or that are likely to be built in Campbell 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 affordable residential units.

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

Recent Housing Market Activity and Prototypical Units

KMA worked with City staff to select five representative development prototypes envisioned to be developed in Campbell in the future. They are based on projects recently built or in the development pipeline in the City. A condominium prototype was included, although not currently being built in Campbell, due to the potential that this type of project may be built in the future. KMA then undertook a market survey of residential projects to estimate current pricing and rent levels. More details on the market survey can be found in Appendix A.

At the time of the market survey in late 2015 and early 2016, the housing market in Campbell was strong, fueled by high-quality residential neighborhoods, a strong public school system and proximity to high-tech employment. There are several recently built, under construction or proposed residential developments in Campbell at this time, including single family detached, townhome and apartments. Two new for-sale projects were being marketed in Campbell. To supplement this data, KMA analyzed recent resale prices of homes built since 2005 and resold since November 2013.

In order to inform achievable market rents for new apartment developments in Campbell, KMA performed a survey of asking apartment rents in select properties. The survey included one newly built property, Revere Campbell, and eight older properties.

The five residential prototypes are summarized in the table below. More detail can be found on Table A-1 (page 12) at the end of this section. The main objective of the survey was to review current market sales prices or rents, per unit and per square foot, for the various residential project types in Campbell.

In summary, the residential prototypes analyzed in the nexus analysis are as follows:

Prototypical Residential Units for City of Campbell					
	Single Family - Large Lot	*Single Family - Small Lot*	*Townhome*	*Condominium*	*Apartments*
Avg. Unit Size	3,000 SF	1,800 SF	1,500 SF	1,000 SF	1,000 SF
Avg. No. of Bedrooms	4.00	3.25	3.00	1.50	1.50
Avg. Sales Price / Rent	$1,590,000	$1,000,000	$875,000	$650,000	$3,600 /mo.
Per Square Foot	$530 /SF	$556 /SF	$583 /SF	$650 /SF	$3.60 /SF

Source: KMA market study; see Appendix A.

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.

Income of Housing Unit Purchaser or Renter

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.

Ownership Units

To make the determination for ownership units, terms for the purchase of residential units used in the analysis are slightly less favorable than what can be achieved at the current time since current terms are not likely to endure. A down-payment of 20%[2] is assumed for ownership prototypes except the large lot single family unit for which a higher down payment of 30%[3] is estimated from local data on units valued over $1.5 million. A 30-year fixed rate loan at a 5% interest is assumed. The interest rate at 5% reflects a longer term average rate based on data for the last fifteen years from 2001 to 2015.[4] A interest rate premium of 0.25% is added for non-conforming loans that exceed the $625,000 limit established by the Federal Housing Finance Agency (FHFA). Tables A-2 to A-5 (beginning on page 13) at the end of this section provide the details.

[2] Down payment of 20% reflects the median for new purchase loans originated in zip codes corresponding to Alameda and Santa Clara Counties derived from Freddie Mac dataset for loans issued in the 1st Quarter of 2015.

[3] Down payment of 30% is based on Listsource data on mortgages for homes valued over $1.5 Million that sold within Santa Clara County from Dec. 2015 to March 2016.

[4] Based on Freddie Mac Primary Mortgage Market Survey. Reflects weekly average rates for 30 year fixed rate mortgages during the period from 1/2001 through 12/2015 applicable to the West Region and rounded to the nearest whole percentage.

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.[5] The analysis estimates gross household income based on the assumption that these 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[6] and is consistent with criteria used by lenders to determine mortgage eligibility.[7]

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 California Health and Safety Code standard for relating income to affordable rent levels.[8] The resulting relationship is that annual household income is 3.3 times annual rent.

The estimated gross household incomes of the purchasers or renters of the prototype units are calculated in Tables A-2 through A-6 (beginning on page 13) and summarized below.

Gross Household Income

	Single Family - Large Lot	*Single Family - Small Lot*	*Townhome*	*Condominium*	*Apartments*
Gross Household Income	$270,000	$189,000	$175,000	$132,000	$147,000

Estimates reflect the income required to afford each type of unit based upon the estimated price and rent levels. The larger single family prototype has the highest price and households in these units need to have correspondingly higher incomes. The household income estimate for the condominium is the lowest of the five prototypes at $132,000, less than the apartment at

[5] 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.

[6] Freddie Mac data on new purchase loans originated in zip codes corresponding to Santa Clara and Alameda Counties for the 1st Quarter of 2015 indicates an average debt to income ratio of 37%; 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. While many purchasers of higher value homes such as the large lot single family prototype may spend less than 35% of their income on housing, the analysis conservatively assumes 35% of income is spent on housing for these households also. 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 California Health and Safety Code standard for relating income to housing costs for ownership units.

[7] 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.

[8] Health and Safety Code Section 50052.5 defines affordable rent levels based on 30% of income.

$147,000. While households in new market rate apartments are estimated to have sufficient income to afford a condo purchase instead, many households have other reasons for renting. Insufficient savings for a down payment, plans to purchase a larger unit longer-term, temporary roommate situations, or a preference for the simplicity and flexibility of renting are potential reasons.

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, gas 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. Housing costs are addressed separately, as described below, and so are not deducted as part of this adjustment step. Table A-7 (page 18) at the end of this section shows the calculation of income available for expenditures.

Income available for expenditures is estimated at approximately 58% to 68% of gross income, depending on the market rate prototype. The estimates are based on a review of data from the Internal Revenue Service and California Franchise Tax Board tax tables. Per the Internal Revenue Service, households earning between $100,000 and $200,000 per year, or the residents of most of the prototypical ownership units, who itemize deductions on their tax returns will pay an average of 12.4% of gross income for federal taxes. Households in the large lot single family units are estimated to pay 19.5% of gross income for federal taxes, the average for households in the $200,000 - $500,000 range who itemize their deductions. Residents of the market rate rental units are estimated to pay an average of 13.4% of gross income in federal income taxes, the average for households in the $100,000 to $200,000 income range not itemizing deductions on their taxes. State taxes are estimated to average 4% to 6% of gross income based on tax rates per the California Franchise Tax Board. The employee share of FICA payroll taxes for Social Security and Medicare is 7.65% of gross income. A ceiling of $118,500 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. Households in the large lot single family prototype are assumed to save 10% of their income estimated from savings rates for the last 20 years 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 limited 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 is 58% – 68%. 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.

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. A comparable adjustment is not applied to the ownership units as newly built ownership units are anticipated to have only a nominal level of vacancy.

Estimates of household income available for expenditures are presented below:

Income Available for Expenditures

	Single Family - Large Lot	*Single Family - Small Lot*	*Townhome*	*Condominium*	*Apartments*
Gross Household Income	$270,000	$189,000	$175,000	$132,000	$147,000
Percent Income available for Expenditures	58%	67%	67%	68%	67%
Spending Adjustment / Rental Vacancy	N/A	N/A	N/A	N/A	95%
Household Income Available for Expenditure(1)					
One Unit	$156,600	$126,600	$117,300	$89,800	$94,000
100 Units [input to IMPLAN]	$15,660,000	$12,660,000	$11,730,000	$8,980,000	$9,400,000

(1) Calculated as gross household income X percent available for expenditures X spending adjustment for rental vacancy. 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 building 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. Tables A-8 and A-9 (page 19 and 20) summarize the conclusions of this section and calculate the household income for the 100-unit building modules.

TABLE A-1
MARKET RATE RESIDENTIAL PROTOTYPES
RESIDENTIAL NEXUS ANALYSIS
CITY OF CAMPBELL

	Large Lot Single Family Detached	Small Lot Single Family Detached	Townhome	Condominium	Apartments
Example Projects	140 S. Second St. 1181 Abbott St. 1411 & 1421 Westmont 1162 S. San Tomas Aquino	Palomar 1689 Bucknall Drive Cottage Place (SFDs)	258 - 268 Union Penny Lane (THs) Cottage Place (THs)	Penny Lane (Rentals) *condo mapped	Penny Lane (Rentals) Revere St. Anton
Density	7,000 - 11,000 sf lots	2,000 - 4,000 sf lots	12 - 20 dua	30 - 40 dua	14 - 20 dua
Building Type	Two stories	Two and Three stories	Three stories	Four stories (excl. garage)	Two to four stories
Unit Mix	3, 4 and 5 BRs	3 and 4BR	3 BR	1, 2 and 3 BR	1, 2 and 3 BR
Average Unit Size (excl. garage)	3,000 sf	1,800 sf	1,500 sf	1,000 sf	1,000 sf
Average No. of Bedrooms	4.0 BR	3.25 BR	3.0 BR	1.5 BR	1.50 BR
Parking Type	Attached garage	Attached garage	Attached garage	Ground-floor garage (podium), multi-story garage (wrap), or subterranean	Surface parking lot (carports)
Average Parking Spaces	2.0	2.0	2.0	1.5 - 2.0	1.5-2.0
Sales Price/Rent per square foot	$1,590,000 $530	$1,000,000 $556	$875,000 $583	$650,000 $650	$3,600 $3.60

TABLE A-2
PROTOTYPE 1 : SINGLE FAMILY - LARGE LOT
SALES PRICE TO INCOME RATIO
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

			Prototype 1 Single Family - Large Lot
Sales Price	$530 /SF	3,000 SF [1]	$1,590,000 [1]
Mortgage Payment			
Downpayment @ 30%		30% [2]	$477,000
Loan Amount			$1,113,000
Interest Rate			5.25% [3]
Term of Mortgage			30 years
Annual Mortgage Payment	$6,200 /month		$73,800
Other Costs			
Property Taxes	1.20% of sales price [4]		$19,080
Homeowner Insurance	0.10% of sales price [5]		$1,600
Total Annual Housing Cost	$7,900 /month		$94,480
% of Income Spent on Hsg			35% [6]
Annual Household Income Required			**$270,000**
Sales Price to Income Ratio			5.9

Notes

(1) Based on KMA Market Survey.

(2) Down payment percentages are estimated based on Listsource data on mortgages for homes valued over $1.5 Million that sold within Santa Clara County from Dec. 2015 to March 2016.

(3) Average mortgage interest rate for prior 15 years derived from Freddie Mac Primary Mortgage Market Survey, West Region (rounded to nearest whole percentage). Based on weekly average rates for 30 year fixed rate mortgages during the period from 1/2001 through 12/2015. Includes a 0.25% premium to reflect the non-conforming nature of the loan (jumbo loan).

(4) Property tax rate is inclusive of ad valorem taxes and applicable voter approved rates, fixed charges, and assessments for the jurisdiction indicated. Source: ListSource.

(5) Estimated from quotes obtained from Progressive Insurance.

(6) While most purchasers of high value homes likely spend less than 35% of their income on housing, the analysis conservatively assumes 35% of income is spent on housing. 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 A-3
PROTOTYPE 2 : SINGLE FAMILY - SMALL LOT
SALES PRICE TO INCOME RATIO
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

			Prototype 2 Single Family - Small Lot
Sales Price	$556 /SF	1,800 SF [1]	$1,000,000 [1]
Mortgage Payment			
Downpayment @ 20%		20% [2]	$200,000
Loan Amount			$800,000
Interest Rate			5.25% [3]
Term of Mortgage			30 years
Annual Mortgage Payment	$4,400 /month		$53,000
Other Costs			
Property Taxes	1.20% of sales price [4]		$12,000
Homeowner Insurance	0.10% of sales price [5]		$1,000
Total Annual Housing Cost	$5,500 /month		$66,000
% of Income Spent on Hsg			35% [6]
Annual Household Income Required			**$189,000**
Sales Price to Income Ratio			5.3

Notes

(1) Based on KMA Market Survey.

(2) Reflects the median down payment for new purchase loans originated in zip codes corresponding to Alameda and Santa Clara Counties derived from Freddie Mac dataset for loans issued in the 1st Quarter of 2015.

(3) Average mortgage interest rate for prior 15 years derived from Freddie Mac Primary Mortgage Market Survey, West Region (rounded to nearest whole percentage). Based on weekly average rates for 30 year fixed rate mortgages during the period from 1/2001 through 12/2015. Includes a 0.25% premium to reflect the non-conforming nature of the loan (jumbo loan).

(4) Property tax rate is inclusive of ad valorem taxes and applicable voter approved rates, fixed charges, and assessments for the jurisdiction indicated. Source: ListSource.

(5) Estimated from quotes obtained from Progressive Insurance.

(6) Ratio is consistent with Fannie Mae mortgage underwriting eligibility criteria which 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. Ratio is also consistent with the California Health and Safety Code standard for relating income to housing costs for ownership units. Freddie Mac data on new purchase loans originated in zip codes corresponding to Santa Clara and Alameda Counties for the 1st Quarter of 2015 indicates an average debt to income ratio of 37%; 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.

TABLE A-4
PROTOTYPE 3 : TOWNHOME
SALES PRICE TO INCOME RATIO
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

			Prototype 3 Townhome
Sales Price	$583 /SF	1,500 SF [1]	$875,000 [1]
Mortgage Payment			
Downpayment @ 20%		20% [2]	$175,000
Loan Amount			$700,000
Interest Rate			5.25% [3]
Term of Mortgage			30 years
Annual Mortgage Payment	$3,900 /month		$46,400
Other Costs			
Property Taxes	1.20%	of sales price [4]	$10,500
HOA Dues	$275	per month [1]	$3,300
Homeowner Insurance	0.10%	sale price [5]	$900
Total Annual Housing Cost	$5,100 /month		$61,100
% of Income Spent on Hsg			35% [6]
Annual Household Income Required			**$175,000**
Sales Price to Income Ratio			5.0

Notes

(1) Based on KMA Market Survey.

(2) Reflects the median down payment for new purchase loans originated in zip codes corresponding to Alameda and Santa Clara Counties derived from Freddie Mac dataset for loans issued in the 1st Quarter of 2015.

(3) Average mortgage interest rate for prior 15 years derived from Freddie Mac Primary Mortgage Market Survey, West Region (rounded to nearest whole percentage). Based on weekly average rates for 30 year fixed rate mortgages during the period from 1/2001 through 12/2015. Includes a 0.25% premium to reflect the non-conforming nature of the loan (jumbo loan).

(4) Property tax rate is inclusive of ad valorem taxes and applicable voter approved rates, fixed charges, and assessments for the jurisdiction indicated. Source: ListSource.

(5) Estimated from quotes obtained from Progressive Insurance.

(6) Ratio is consistent with Fannie Mae mortgage underwriting eligibility criteria which 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. Ratio is also consistent with the California Health and Safety Code standard for relating income to housing costs for ownership units. Freddie Mac data on new purchase loans originated in zip codes corresponding to Santa Clara and Alameda Counties for the 1st Quarter of 2015 indicates an average debt to income ratio of 37%; 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.

TABLE A-5
PROTOTYPE 4 : CONDOMINIUM
SALES PRICE TO INCOME RATIO
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

			Prototype 4 Condominium
Sales Price	$650 /SF	1,000 SF [1]	$650,000 [1]
Mortgage Payment			
Downpayment @ 20%		20% [2]	$130,000
Loan Amount			$520,000
Interest Rate			5.00% [3]
Term of Mortgage			30 years
Annual Mortgage Payment	$2,800 /month		$33,500
Other Costs			
Property Taxes	1.20%	of sales price [4]	$7,800
HOA Dues	$350	per month [1]	$4,200
Homeowner Insurance	0.10%	sale price [5]	$700
Total Annual Housing Cost	$3,900 /month		$46,200
% of Income Spent on Hsg			35% [6]
Annual Household Income Required			**$132,000**
Sales Price to Income Ratio			4.9

Notes

(1) Based on KMA Market Survey.

(2) Reflects the median down payment for new purchase loans originated in zip codes corresponding to Alameda and Santa Clara Counties derived from Freddie Mac dataset for loans issued in the 1st Quarter of 2015.

(3) Average mortgage interest rate for prior 15 years derived from Freddie Mac Primary Mortgage Market Survey, West Region (rounded to nearest whole percentage). Based on weekly average rates for 30 year fixed rate mortgages during the period from 1/2001 through 12/2015.

(4) Property tax rate is inclusive of ad valorem taxes and applicable voter approved rates, fixed charges, and assessments for the jurisdiction indicated. Source: ListSource.

(5) Estimated from quotes obtained from Progressive Insurance.

(6) Ratio is consistent with Fannie Mae mortgage underwriting eligibility criteria which 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. Ratio is also consistent with the California Health and Safety Code standard for relating income to housing costs for ownership units. Freddie Mac data on new purchase loans originated in zip codes corresponding to Santa Clara and Alameda Counties for the 1st Quarter of 2015 indicates an average debt to income ratio of 37%; 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.

TABLE A-6
PROTOTYPE 5 : APARTMENTS
RENT TO INCOME RATIO
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

		Prototype 5 Apartments
Market Rent	Unit Size	
Monthly	1,000 SF [1]	$3,600 [1]
Utilities[2]		$80
Monthly housing cost		$3,680
Annual housing cost		$44,160
% of Income Spent on Rent		30% [3]
Annual Household Income Required		**$147,000**
Annual Rent to Income Ratio		3.3

Notes

(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 established in the California Health and Safety Code and used throughout housing policy to relate income to affordable rental housing costs.

TABLE A-7
INCOME AVAILABLE FOR EXPENDITURES[1]
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

	Prototype 1	*Prototype 2*	*Prototype 3*	*Prototype 4*	*Prototype 5*
	Single Family - Large Lot	**Single Family - Small Lot**	**Townhome**	**Condominium**	**Apartments**
Gross Income	100%	100%	100%	100%	100%
Less:					
Federal Income Taxes [2]	19.5%	12.4%	12.4%	12.4%	13.4%
State Income Taxes [3]	6%	5%	5%	4%	4%
FICA Tax Rate [4]	6.12%	7.65%	7.65%	7.65%	7.65%
Savings & other deductions [5]	10%	8%	8%	8%	8%
Percent of Income Available for Expenditures [6] [Input to IMPLAN model]	***58%***	***67%***	***67%***	***68%***	***67%***

Notes:

[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 1.1 and 2.1 for 2013. Homeowners are assumed to itemize deductions. Renter households are assumed to take the standard deduction. Tax rates reflect averages for applicable income range.

[3] Average tax rate estimated by KMA based on marginal rates per the California Franchise Tax Board 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 $118,500 (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 for households earning less than $225,000 is based on the average over the past 20 years computed from U.S. Bureau of Economic Analysis data, specifically the National Income and Product Accounts, Table 2.1 "Personal Income and Its Disposition." Households earning more than $225,000 are assumed to save a higher percentage of their income, based on savings rates for the last 20 years 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.

[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.

TABLE A-8
FOR SALE PROTOTYPES: SALES PRICE TO INCOME SUMMARY
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

		Per Unit	Per Sq.Ft.	100 Unit Building Module (Per 100 Units)
PROTOTYPE 1 : SINGLE FAMILY - LARGE LOT				
Building Sq.Ft. (excludes garage)		3,000		300,000
Sales Price		$1,590,000	$530	$159,000,000
Sales Price to Income Ratio		5.9		5.9
Gross Household Income		$270,000		$27,000,000
Income Available for Expenditure[1]	58% of gross	$156,600		**$15,660,000**
PROTOTYPE 2 : SINGLE FAMILY - SMALL LOT				
Building Sq.Ft. (excludes garage)		1,800		180,000
Sales Price		$1,000,000	$556	$100,000,000
Sales Price to Income Ratio		5.3		5.3
Gross Household Income		$189,000		$18,900,000
Income Available for Expenditure[1]	67% of gross	$126,600		**$12,660,000**
PROTOTYPE 3 : TOWNHOME				
Building Sq.Ft. (excludes garage)		1,500		150,000
Sales Price		$875,000	$583	$87,500,000
Sales Price to Income Ratio		5.0		5.0
Gross Household Income		$175,000		$17,500,000
Income Available for Expenditure[1]	67% of gross	$117,300		**$11,730,000**
PROTOTYPE 4 : CONDOMINIUM				
Building Sq.Ft. (excludes garage)		1,000		100,000
Sales Price		$650,000	$650	$65,000,000
Sales Price to Income Ratio		4.9		4.9
Gross Household Income		$132,000		$13,200,000
Income Available for Expenditure[1]	68% of gross	$89,800		**$8,980,000**

Notes:
(1) Represents net income available for expenditures after income tax, payroll taxes, and savings. See Table A-7 for derivation.

Source: See Table A-1 through Table A-7.

TABLE A-9
NEW MARKET RATE RESIDENTIAL HOUSEHOLD SUMMARY
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

		Per Unit	Per Sq.Ft.	100 Unit Building Module *(Per 100 Units)*
PROTOTYPE 5 : APARTMENTS				
Building Sq.Ft.		1,000		100,000
Rent				
Monthly		$3,600	$3.60 /SF	$360,000
Monthly with Utilities		$3,680		
Annual with Utilities		$44,160		$4,416,000
Rent to Income Ratio		3.3		3.3
Gross Household Income		$147,000		$14,700,000
Income Available for Expenditure[1]	67% of gross	$98,000		$9,850,000
Expenditures adjusted for vacancy[2]	5% vacancy	$94,000		**$9,400,000**

Notes:
(1) Represents net income available for expenditures after income tax, payroll taxes, and savings. See Table A-7 for derivation.
(2) Allowance to account for standard operational vacancy.

Source: See Table A-2 through A-5.

B. The 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 Santa Clara 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. A significant portion of these jobs will be located in Campbell or nearby. In addition, the employment impacts will extend throughout the county and beyond based on where jobs are located that serve Campbell residents. In fact, Campbell is part of the larger Bay Area economy and impacts will likewise extend throughout the region. However, consistent with the conservative approach taken in the nexus analysis, only the impacts that occur within Santa Clara County are included in the analysis.

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 below.

Jobs Generated Per 100 Units					
	Single Family - Large Lot	*Single Family - Small Lot*	*Townhome*	*Condominium*	*Apartments*
Annual Household Expenditures (100 Units)	$15,660,000	$12,660,000	$11,730,000	$8,980,000	$9,400,000
Total Jobs Generated (100 Units)	94.4	76.3	70.7	53.3	55.8

Table B-1 (page 23) provides a detailed summary of employment generated by industry. The table shows industries 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. The jobs counted in the IMPLAN model cover all jobs, full and part time, similar to the U.S. Census and all reporting agencies (unless otherwise indicated).

TABLE B-1
IMPLAN MODEL OUTPUT
EMPLOYMENT GENERATED
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

Per 100 Market Rate Units	*Prototype 1*	*Prototype 2*	*Prototype 3*	*Prototype 4*	*Prototype 5*	
	Single Family - Large Lot	**Single Family - Small Lot**	**Townhome**	**Condominium**	**Apartments**	**% of Jobs**
Household Expenditures *(100 Market Rate Units)*	$15,660,000	$12,660,000	$11,730,000	$8,980,000	$9,400,000	
Jobs Generated by Industry [1]						
Full-service restaurants	5.8	4.7	4.3	3.5	3.7	6%
Individual and family services	4.7	3.8	3.5	2.6	2.7	5%
Limited-service restaurants	4.8	3.9	3.6	3.0	3.1	5%
All other food and drinking places	3.0	2.4	2.2	1.8	1.9	3%
Subtotal Restaurant	18.3	14.8	13.7	10.9	11.4	20%
Retail - Food and beverage stores	3.4	2.8	2.6	1.9	2.0	4%
Retail - General merchandise stores	2.7	2.2	2.0	1.5	1.6	3%
Personal care services	2.1	1.7	1.6	1.4	1.4	2%
Retail - Health and personal care stores	1.4	1.1	1.0	0.8	0.8	1%
Retail - Miscellaneious store retailers	1.3	1.1	1.0	0.7	0.8	1%
Retail - Building material and garden	1.3	1.1	1.0	0.7	0.7	1%
Other personal services	1.2	1.0	0.9	0.7	0.7	1%
Retail - Clothing and accessories	1.2	0.9	0.9	0.6	0.7	1%
Retail - Motor vehicle and parts dealers	1.0	0.8	0.8	0.6	0.6	1%
Retail - Nonstore retailers	0.4	0.3	0.3	0.2	0.2	0%
Subtotal Retail and Service	16.1	13.0	12.1	9.0	9.5	17%
Hospitals	4.4	3.6	3.3	2.9	3.1	5%
Nursing and community care facilities	2.1	1.7	1.6	1.4	1.5	2%
Home health care services	0.9	0.7	0.7	0.6	0.6	1%
Offices of physicians	2.5	2.0	1.9	1.7	1.8	3%
Offices of dentists	1.1	0.9	0.8	0.7	0.8	1%
Offices of other health practitioners	1.4	1.1	1.0	0.9	1.0	2%
Subtotal Healthcare	12.4	10.0	9.3	8.3	8.7	14%
Other educational services	2.9	2.4	2.2	1.1	1.2	3%
Colleges, universities	2.9	2.3	2.2	1.0	1.1	3%
Elementary and secondary schools	1.8	1.4	1.3	0.7	0.8	2%
Subtotal Education	7.6	6.1	5.7	2.9	3.0	7%
Real estate	3.4	2.8	2.6	2.1	2.2	4%
Wholesale trade	2.4	1.9	1.8	1.3	1.4	3%
Other financial investment activities	2.2	1.7	1.6	1.2	1.3	2%
Child day care services	2.1	1.7	1.5	0.8	0.9	2%
Services to private households	1.7	1.3	1.2	0.9	0.9	2%
Services to buildings	1.6	1.3	1.2	0.9	0.9	2%
Automotive repair and maintenance	1.4	1.1	1.1	0.9	0.9	2%
All Other	25.3	20.5	19.0	14.1	14.8	27%
Total Number of Jobs Generated	94.4	76.3	70.7	53.3	55.8	100%

[1] 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 Santa Clara County (uses 2014 IMPLAN data set, the most recent available as of March 2016). Includes both full- and part-time jobs.

C. The KMA Jobs Housing Nexus Model

This section presents a summary of the analysis linking the employment growth associated with residential development, or the output of the IMPLAN model (see Section B), to the estimated number of lower income housing units required in each of four income categories, for each of the five residential prototype units.

Analysis Approach and Framework

The analysis approach is to examine the employment growth for industries related to consumer spending by residents in the 100-unit modules. Then, through a series of linkage steps, the number of employees is converted to households and housing units by affordability level. The findings are expressed in terms of numbers of affordable units per 100 market rate units. The analysis addresses the affordable unit demand associated with single family detached, townhomes, condos, and rental units.

The table below shows the 2016 Area Median Income (AMI) for Santa Clara County, as well as the income limits for the four categories that were evaluated: Extremely Low (30% of AMI), Very Low (50% of AMI), Low (80% of AMI), and Moderate (120% of AMI). The income definitions used in the analysis are those published by the California Department of Housing and Community Development (HCD).

2016 Income Limits for Santa Clara County

	Household Size (Persons)					
	1	2	3	4	5	6 +
Extr. Low (Under 30% AMI)	$23,450	$26,800	$30,150	$33,500	$36,200	$38,900
Very Low (30%-50% AMI)	$39,100	$44,650	$50,250	$55,800	$60,300	$64,750
Low (50%-80% AMI)	$59,400	$67,900	$76,400	$84,900	$91,650	$98,450
Moderate (80%-120% AMI)	$89,950	$102,800	$115,650	$128,500	$138,800	$149,050
Median (100% of Median)	$74,950	$85,700	$96,400	$107,100	$115,650	$124,250

Source: California Department of Housing and Community Development.

The analysis is conducted using a model that KMA developed and has applied to similar evaluations in many other jurisdictions. The model inputs are all local data to the extent possible, and are fully documented in the following description.

Analysis Steps

The tables at the end of this section present a summary of the nexus analysis steps for the prototype units. Following is a description of each step of the analysis.

Step 1 – Estimate of Total New Employees

Table C-1 (page 30) commences with the total number of employees associated with the new market rate units. The employees were estimated based on household expenditures of new residents using the IMPLAN model (see Section B).

Step 2 – Changing Industries Adjustment and Net New Jobs

The local economy, like that of the U.S. as a whole, is constantly evolving, with job losses in some sectors and job growth in others. Over the past decade employment in manufacturing sectors of the local economy have declined along with governmental employment, farming, construction and financial activities employment. Jobs lost over the last decade in these declining sectors were replaced by job growth in other industry sectors.

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 20% 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. Long term declines in employment experienced in some sectors of the economy mean that some of the new jobs are being 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 retail, restaurant, health care, and other jobs associated with services to residents.

The 20% downward adjustment used for purposes of the analysis was derived from California Employment Development Department data on employment by industry in the San Jose-Sunnyvale-Santa Clara and Oakland-Hayward-Berkeley Metropolitan Districts which encompasses the jurisdictions included in the multi-jurisdiction nexus effort. Over the ten-year period from 2005 to 2015, approximately 55,000 jobs were lost in declining industry sectors. Over the same period, growing and stable industries added a total of 268,000 jobs. The figures are used to establish a ratio between jobs lost in declining industries to jobs gained in growing and stable industries at 20%[9]. The 20% factor is applied as an adjustment in the analysis, effectively assuming one in every five new jobs is filled by a worker down-sized from a declining industry and who already lives locally.

The discount for changing industries is a conservative analysis assumption that may result in an understatement of impacts. The adjustment assumes workers down-sized from declining sectors of the local economy are available to fill a portion of the new service sector jobs documented in a residential nexus analysis. In reality, displaced workers from declining industry sectors of the economy are not always available to fill these new service jobs because they may retire or exit the

[9] The 20% ratio is calculated as 55,000 jobs lost in declining sectors excluding defense divided by 268,000 jobs gained in growing and stable sectors = 20.5% (rounded to 20%).

workforce or may be competitive for and seek employment in one of the other growing sectors of the local economy that is not oriented towards services to local residents.

Step 3 – Adjustment from Employees to Employee Households

This step (Table C-1, page 30) 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 workers-per-worker-household ratio eliminates from the equation all non-working households, such as retired persons, students, and those on public assistance. The County average of 1.72 workers per worker household (from the U. S. Census Bureau 2011-2013 American Community Survey) is used for this step in the analysis. The number of jobs is divided by 1.72 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 1.72 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 B-1 (page 23). The IMPLAN output is paired with data from the Department of Labor, Bureau of Labor Statistics May 2014 Occupational Employment Survey (OES) to estimate the occupational composition of employees for each industry sector.

Step 4a – Translation from IMPLAN Industry Codes to NAICS Industry Codes

The output of the IMPLAN model is jobs by industry sector using IMPLAN's own industry classification system, which consists of 536 industry sectors. The OES occupation data uses the North American Industry Classification System (NAICS). Estimates of jobs by IMPLAN sector must be translated into estimates by NAICS code for consistency with the OES data.

The NAICS system is organized into industry codes ranging from two- to six-digits. Two-digit codes are the broadest industry categories and six-digit codes are the most specific. Within a two-digit NAICS code, there may be several three-digit codes and within each three-digit code, several four-digit codes, etc. A chart published by IMPLAN relates each IMPLAN industry sector with one or more NAICS codes, with matching NAICS codes ranging from the two-digit level to the five-digit level. For purposes of the nexus analysis, all employment estimates must be aggregated to the four, or in some cases, five-digit NAICS code level to align with OES data which is organized by four and five-digit NAICS code. For some industry sectors, an allocation is necessary between more than one NAICS code. Where required, allocations are made proportionate to total employment at the national level from the OES.

The table below illustrates analysis Step 4a in which employment estimates by IMPLAN Code are translated to NAICS codes and then aggregated at the four and five digit NAICS code level. The examples used are Child Day Care Centers and Hospitals. The process is applied to all the industry sectors.

Illustration of Model Step 4a.						
A. IMPLAN Output by IMPLAN Industry Sector		B. Link to Corresponding NAICS		C. Aggregate at 4-Digit NAICS Code Level		
Jobs	IMPLAN Sector	Jobs	NAICS Code	Jobs	% Total	4-Digit NAICS
2.1	487 - Child day care services	2.1	6244 Child day care services	2.1	100%	6244 Child day care services
4.4	482 - Hospitals	4.4	622 Hospitals	4.0	92%	6221 General Medical and Surgical Hospitals
				0.2	4%	6222 Psychiatric and Substance Abuse Hospitals
				0.2	4%	6223 Specialty (except Psychiatric and Substance Abuse) Hospitals

Source: KMA, Bureau of Labor Statistics May 2014 Occupational Employment Survey.

Step 4b – Apply OES Data to Estimate Occupational Distribution

Employment estimates by four and five-digit NAICS code from step 4a are paired with data on occupational composition within each industry from the OES to generate an estimate of employment by detailed occupational category. As shown on Table C-1 (page 30), new jobs will be distributed across a variety of occupational categories. The three largest occupational categories are office and administrative support (15%), food preparation and serving (15% - 16%), and sales and related (13%). Step 4 of Table C-1 indicates the percentage and number of employee households by occupation associated with 100 market rate units.

Step 5 – Estimates of Employee Households Meeting the Lower Income Definitions

In this step, occupations are translated to employee incomes based on recent Santa Clara County wage and salary information from the California Employment Development Department (EDD). The wage and salary information summarized in Appendix B provided the income inputs to the model.

For each occupational category shown in Table C-1, the OES data provides a distribution of specific occupations within the category. For example, within the Food Preparation and Serving Category, there are Supervisors, Cooks, Bartenders, Waiters and Waitresses, Dishwashers, etc. In total there are over 100 detailed occupation categories included in the analysis as shown

in the Appendix B tables. Each of these over 100 occupation categories has a different distribution of wages which was obtained from EDD and is specific to workers in Santa Clara County as of 2015.

For each detailed occupational category, the model uses the distribution of wages to calculate the percent of worker households that would fall into each income category. The calculation is performed for each possible combination of household size and number of workers in the household. For households with more than one worker, individual *employee* income data was used to calculate the household income by assuming multiple earner households are, on average, formed of individuals with similar incomes.

At the end of Step 5, the nexus model has established a matrix indicating the percentages of households that would qualify in the affordable income tiers for every detailed occupational category and every potential combination of household size and number of workers in the household.

Step 6 – Distribution of Household Size and Number of Workers

In this step, we account for the distribution in household sizes and number of workers for Santa Clara County households using local data obtained from the U.S. Census. Census data is used to develop a set of percentage factors representing the distribution of household sizes and number of workers within working households. The percentage factors are specific to Santa Clara County and are derived from the 2011 – 2013 American Community Survey. Application of these percentage factors accounts for the following:

- Households have a range in size and a range in the number of workers.
- Large households generally have more workers than smaller households.

The result of Step 6 is a distribution of Santa Clara County working households by number of workers and household size.

Step 7 – Estimate of Number of Households that Meet Size and Income Criteria

Step 7 is the final step to calculate the number of worker households meeting the size and income criteria for the four affordability tiers. The calculation combines the matrix of results from Step 5 on percentage of worker households that would meet the income criteria at each potential household size / no. of workers combination, with Step 6, the percentage of worker household having a given household size / number of workers combination. The result is the percent of households that fall into each affordability tier. The percentages are then multiplied by the number of households from Step 3 to arrive at number of households in each affordability tier.

Table C-2A (page 31) shows the result after completing Steps 5, 6, and 7 for the Extremely Low Income Tier. Tables C-2B, C-2C, C-2D (beginning on page 32) show results for the Very Low,

Low, and Moderate Income tiers. A similar table is not included for the above moderate category (over 120% of AMI) because the focus of the analysis is on quantifying housing needs within the four affordable income categories.

Summary Findings

Table C-3 (page 35) indicates the results of the analysis for all of the affordability tiers. The table presents the number of households generated in each affordability category and the total number over 120% of Area Median Income.

The findings in Table C-3 are presented below. The table shows the total demand for affordable housing units associated with 100 market rate units. Each column indicates findings specific to the applicable prototype. For example, for the townhome, 27.2 units from 0% to 120% of median income are identified, an estimate that reflects the demand for goods and services by residents in 100 market rate townhome units and the housing needs of the workers who will be providing these goods and services.

New Worker Households per 100 Market Rate Units, City of Campbell					
	Single Family - Large Lot	*Single Family - Small Lot*	*Townhome*	*Condominium*	*Apartments*
Extremely Low (0%-30% AMI)	7.9	6.4	5.9	4.5	4.7
Very Low (30%-50% AMI)	11.9	9.6	8.9	6.7	7.0
Low (50%-80% AMI)	10.1	8.2	7.6	5.6	5.9
Moderate (80%-120% AMI)	6.5	5.2	4.8	3.6	3.8
Total, Less than 120% AMI	**36.3**	**29.4**	**27.2**	**20.4**	**21.4**
Greater than 120% AMI	7.7	6.2	5.7	4.4	4.6
Total, New Households	**44.0**	**35.6**	**32.9**	**24.9**	**26.0**

Housing demand for new worker households earning less than 120% of AMI ranges from 36.3 units per 100 market rate units for larger single family detached units to 20.4 per 100 market rate units for condominium units. The greatest level of housing demand is identified for the large lot single family units as a result of the higher incomes of households within these units which results in greater demand for goods and services, greater numbers of service jobs, and greater housing needs for workers who will be employed in these service jobs.

Housing demand is distributed across the lower income tiers with the greatest numbers of households in the Very Low and Low tiers. The finding that the jobs associated with consumer spending tend to be low-paying jobs where the workers will require housing affordable at the lower income levels is not surprising. As noted above, direct consumer spending results in employment that is concentrated in lower paid occupations including food preparation, administrative, and retail sales.

TABLE C-1
NET NEW HOUSEHOLDS AND OCCUPATION DISTRIBUTION
EMPLOYEE HOUSEHOLDS GENERATED
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

	Prototype 1	*Prototype 2*	*Prototype 3*	*Prototype 4*	*Prototype 5*
	Single Family - Large Lot	**Single Family - Small Lot**	**Townhome**	**Condominium**	**Apartments**
Step 1 - Employees [1]	94.4	76.3	70.7	53.3	55.8
Step 2 - Adjustment for Changing Industries (20%) (2)	75.5	61.1	56.6	42.7	44.7
Step 3 - Adjustment for Number of Households (1.72) (3)	44.0	35.6	32.9	24.9	26.0
Step 4 - Occupation Distribution [4]					
Management Occupations	4.2%	4.2%	4.2%	4.1%	4.1%
Business and Financial Operations	4.1%	4.1%	4.1%	4.0%	4.0%
Computer and Mathematical	1.2%	1.2%	1.2%	1.1%	1.1%
Architecture and Engineering	0.3%	0.3%	0.3%	0.4%	0.4%
Life, Physical, and Social Science	0.4%	0.4%	0.4%	0.3%	0.3%
Community and Social Services	2.3%	2.3%	2.3%	2.2%	2.2%
Legal	0.6%	0.6%	0.6%	0.6%	0.6%
Education, Training, and Library	5.8%	5.8%	5.8%	4.1%	4.1%
Arts, Design, Entertainment, Sports, and Media	1.5%	1.5%	1.5%	1.3%	1.3%
Healthcare Practitioners and Technical	7.2%	7.2%	7.2%	8.2%	8.2%
Healthcare Support	4.2%	4.2%	4.2%	4.8%	4.8%
Protective Service	1.1%	1.1%	1.1%	1.1%	1.1%
Food Preparation and Serving Related	15.1%	15.1%	15.1%	16.2%	16.2%
Building and Grounds Cleaning and Maint.	5.4%	5.4%	5.4%	5.3%	5.3%
Personal Care and Service	7.5%	7.5%	7.5%	7.3%	7.3%
Sales and Related	13.4%	13.4%	13.4%	13.3%	13.3%
Office and Administrative Support	15.2%	15.2%	15.2%	15.2%	15.2%
Farming, Fishing, and Forestry	0.1%	0.1%	0.1%	0.1%	0.1%
Construction and Extraction	0.9%	0.9%	0.9%	1.0%	1.0%
Installation, Maintenance, and Repair	3.3%	3.3%	3.3%	3.5%	3.5%
Production	1.5%	1.5%	1.5%	1.4%	1.4%
Transportation and Material Moving	4.6%	4.6%	4.6%	4.5%	4.5%
Totals	100.0%	100.0%	100.0%	100.0%	100.0%
Management Occupations	1.8	1.5	1.4	1.0	1.1
Business and Financial Operations	1.8	1.4	1.3	1.0	1.0
Computer and Mathematical	0.5	0.4	0.4	0.3	0.3
Architecture and Engineering	0.2	0.1	0.1	0.1	0.1
Life, Physical, and Social Science	0.2	0.1	0.1	0.1	0.1
Community and Social Services	1.0	0.8	0.7	0.6	0.6
Legal	0.3	0.2	0.2	0.2	0.2
Education, Training, and Library	2.5	2.1	1.9	1.0	1.1
Arts, Design, Entertainment, Sports, and Media	0.7	0.5	0.5	0.3	0.3
Healthcare Practitioners and Technical	3.2	2.6	2.4	2.0	2.1
Healthcare Support	1.9	1.5	1.4	1.2	1.3
Protective Service	0.5	0.4	0.4	0.3	0.3
Food Preparation and Serving Related	6.7	5.4	5.0	4.0	4.2
Building and Grounds Cleaning and Maint.	2.4	1.9	1.8	1.3	1.4
Personal Care and Service	3.3	2.7	2.5	1.8	1.9
Sales and Related	5.9	4.8	4.4	3.3	3.4
Office and Administrative Support	6.7	5.4	5.0	3.8	4.0
Farming, Fishing, and Forestry	0.0	0.0	0.0	0.0	0.0
Construction and Extraction	0.4	0.3	0.3	0.2	0.2
Installation, Maintenance, and Repair	1.5	1.2	1.1	0.9	0.9
Production	0.6	0.5	0.5	0.4	0.4
Transportation and Material Moving	2.0	1.6	1.5	1.1	1.2
Totals	44.0	35.6	32.9	24.9	26.0

Notes:

[1] Estimated employment generated by expenditures of households within 100 prototypical market rate units from Table B-1.

[2] The 20% adjustment is based upon job losses in declining sectors of the local economy over the past 10 years. “Downsized” workers from declining sectors are assumed to fill a portion of new jobs in sectors serving residents. 20% adjustment calculated as 54,700 jobs lost in declining sectors divided by 267,700 jobs gained in growing and stable sectors = 20%.

[3] Adjustment from number of workers to households using county-wide average of 1.72 workers per worker household derived from the U.S. Census American Community Survey 2011 to 2013.

[4] See Appendix B Tables 1 - 4 for additional information on Major Occupation Categories.

TABLE C-2A

EXTREMELY LOW-INCOME (ELI) EMPLOYEE HOUSEHOLDS[1] GENERATED
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

Per 100 Market Rate Units

	Prototype 1	*Prototype 2*	*Prototype 3*	*Prototype 4*	*Prototype 5*
	Single Family - Large Lot	**Single Family - Small Lot**	**Townhome**	**Condominium**	**Apartments**
Step 5 & 6 - Extremely Low Income Households (under 30% AMI) within Major Occupation Categories [2]					
Management	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations	-	-	-	-	-
Computer and Mathematical	-	-	-	-	-
Architecture and Engineering	-	-	-	-	-
Life, Physical and Social Science	-	-	-	-	-
Community and Social Services	0.03	0.03	0.03	0.02	0.02
Legal	-	-	-	-	-
Education Training and Library	0.25	0.20	0.19	0.10	0.11
Arts, Design, Entertainment, Sports, & Media	-	-	-	-	-
Healthcare Practitioners and Technical	0.01	0.01	0.01	0.00	0.00
Healthcare Support	0.29	0.23	0.22	0.18	0.19
Protective Service	-	-	-	-	-
Food Preparation and Serving Related	2.62	2.12	1.96	1.58	1.66
Building Grounds and Maintenance	0.57	0.46	0.43	0.31	0.33
Personal Care and Service	0.97	0.78	0.72	0.55	0.58
Sales and Related	1.35	1.09	1.01	0.75	0.78
Office and Admin	0.47	0.38	0.35	0.26	0.27
Farm, Fishing, and Forestry	-	-	-	-	-
Construction and Extraction	-	-	-	-	-
Installation Maintenance and Repair	0.04	0.03	0.03	0.02	0.02
Production	-	-	-	-	-
Transportation and Material Moving	0.46	0.37	0.34	0.25	0.27
ELI Households - Major Occupations	7.05	5.70	5.28	4.04	4.23
ELI Households[1] - all other occupations	0.81	0.65	0.61	0.46	0.48
Total ELI Households[1]	**7.86**	**6.35**	**5.89**	**4.50**	**4.71**

(1) Includes households earning from zero through 30% of Santa Clara County Area Median Income.

(2) See Appendix B Tables 1 - 4 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 and 4. The distribution of the number of workers per worker household and the distribution of household size are based on American Community Survey data.

TABLE C-2B

VERY LOW-INCOME EMPLOYEE HOUSEHOLDS[1] GENERATED
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

Per 100 Market Rate Units

	Prototype 1	*Prototype 2*	*Prototype 3*	*Prototype 4*	*Prototype 5*
	Single Family - Large Lot	**Single Family - Small Lot**	**Townhome**	**Condominium**	**Apartments**
Step 5 & 6 - Very Low Income Households (30%-50% AMI) within Major Occupation Categories [2]					
Management	0.03	0.02	0.02	0.02	0.02
Business and Financial Operations	0.03	0.03	0.02	0.02	0.02
Computer and Mathematical	-	-	-	-	-
Architecture and Engineering	-	-	-	-	-
Life, Physical and Social Science	-	-	-	-	-
Community and Social Services	0.20	0.16	0.15	0.11	0.12
Legal	-	-	-	-	-
Education Training and Library	0.64	0.52	0.48	0.26	0.27
Arts, Design, Entertainment, Sports, & Media	-	-	-	-	-
Healthcare Practitioners and Technical	0.06	0.05	0.05	0.04	0.04
Healthcare Support	0.63	0.51	0.48	0.41	0.43
Protective Service	-	-	-	-	-
Food Preparation and Serving Related	2.44	1.97	1.83	1.48	1.54
Building Grounds and Maintenance	0.88	0.71	0.66	0.49	0.51
Personal Care and Service	1.19	0.96	0.89	0.65	0.68
Sales and Related	1.86	1.51	1.39	1.03	1.08
Office and Admin	1.72	1.39	1.29	0.97	1.02
Farm, Fishing, and Forestry	-	-	-	-	-
Construction and Extraction	-	-	-	-	-
Installation Maintenance and Repair	0.28	0.23	0.21	0.17	0.17
Production	-	-	-	-	-
Transportation and Material Moving	0.70	0.57	0.52	0.38	0.40
Very Low Households - Major Occupations	10.68	8.63	8.00	6.02	6.30
Very Low Households[1] - all other occupations	1.22	0.99	0.92	0.68	0.71
Total Very Low Inc. Households[1]	**11.90**	**9.62**	**8.91**	**6.70**	**7.01**

(1) Includes households earning from 30% through 50% of Santa Clara County Area Median Income.

(2) See Appendix B Tables 1 - 4 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 and 4. The distribution of the number of workers per worker household and the distribution of household size are based on American Community Survey data.

TABLE C-2C

LOW-INCOME EMPLOYEE HOUSEHOLDS[1] GENERATED
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

Per 100 Market Rate Units

	Prototype 1	*Prototype 2*	*Prototype 3*	*Prototype 4*	*Prototype 5*
	Single Family - Large Lot	**Single Family - Small Lot**	**Townhome**	**Condominium**	**Apartments**
Step 5 & 6 - Low Income Households (50%-80% AMI) within Major Occupation Categories [2]					
Management	0.12	0.10	0.09	0.07	0.07
Business and Financial Operations	0.22	0.18	0.17	0.12	0.13
Computer and Mathematical	-	-	-	-	-
Architecture and Engineering	-	-	-	-	-
Life, Physical and Social Science	-	-	-	-	-
Community and Social Services	0.29	0.23	0.22	0.16	0.17
Legal	-	-	-	-	-
Education Training and Library	0.68	0.55	0.51	0.27	0.28
Arts, Design, Entertainment, Sports, & Media	-	-	-	-	-
Healthcare Practitioners and Technical	0.21	0.17	0.16	0.13	0.14
Healthcare Support	0.54	0.44	0.40	0.35	0.36
Protective Service	-	-	-	-	-
Food Preparation and Serving Related	1.23	0.99	0.92	0.74	0.78
Building Grounds and Maintenance	0.57	0.46	0.43	0.32	0.33
Personal Care and Service	0.76	0.62	0.57	0.42	0.43
Sales and Related	1.46	1.18	1.09	0.81	0.85
Office and Admin	2.03	1.64	1.52	1.15	1.20
Farm, Fishing, and Forestry	-	-	-	-	-
Construction and Extraction	-	-	-	-	-
Installation Maintenance and Repair	0.43	0.35	0.32	0.25	0.27
Production	-	-	-	-	-
Transportation and Material Moving	0.51	0.41	0.38	0.28	0.29
Low Households - Major Occupations	9.06	7.32	6.79	5.07	5.31
Low Households[1] - all other occupations	1.04	0.84	0.78	0.57	0.60
Total Low Inc. Households[1]	**10.10**	**8.16**	**7.56**	**5.64**	**5.91**

(1) Includes households earning from 50% through 80% of Santa Clara County Area Median Income.

(2) See Appendix B Tables 1 - 4 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 and 4. The distribution of the number of workers per worker household and the distribution of household size are based on American Community Survey data.

TABLE C-2D

MODERATE-INCOME EMPLOYEE HOUSEHOLDS[1] GENERATED
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

Per 100 Market Rate Units

	Prototype 1	*Prototype 2*	*Prototype 3*	*Prototype 4*	*Prototype 5*
	Single Family - Large Lot	**Single Family - Small Lot**	**Townhome**	**Condominium**	**Apartments**
Step 5 & 6 - Moderate Income Households (80%-120% AMI) within Major Occupation Categories [2]					
Management	0.28	0.23	0.21	0.16	0.16
Business and Financial Operations	0.41	0.33	0.31	0.23	0.24
Computer and Mathematical	-	-	-	-	-
Architecture and Engineering	-	-	-	-	-
Life, Physical and Social Science	-	-	-	-	-
Community and Social Services	0.26	0.21	0.19	0.14	0.15
Legal	-	-	-	-	-
Education Training and Library	0.54	0.43	0.40	0.21	0.22
Arts, Design, Entertainment, Sports, & Media	-	-	-	-	-
Healthcare Practitioners and Technical	0.61	0.50	0.46	0.39	0.41
Healthcare Support	0.29	0.24	0.22	0.19	0.20
Protective Service	-	-	-	-	-
Food Preparation and Serving Related	0.16	0.13	0.12	0.10	0.10
Building Grounds and Maintenance	0.27	0.22	0.20	0.15	0.16
Personal Care and Service	0.22	0.18	0.16	0.11	0.12
Sales and Related	0.64	0.52	0.48	0.36	0.38
Office and Admin	1.48	1.20	1.11	0.84	0.88
Farm, Fishing, and Forestry	-	-	-	-	-
Construction and Extraction	-	-	-	-	-
Installation Maintenance and Repair	0.38	0.31	0.29	0.22	0.23
Production	-	-	-	-	-
Transportation and Material Moving	0.24	0.20	0.18	0.13	0.14
Moderate Households - Major Occupations	5.79	4.68	4.34	3.23	3.39
Modereate Households[1] - all other occupations	0.66	0.54	0.50	0.37	0.38
Total Moderate Inc. Households[1]	**6.46**	**5.22**	**4.84**	**3.60**	**3.77**

(1) Includes households earning from 80% through 120% of Santa Clara County Area Median Income.

(2) See Appendix B Tables 1 - 4 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 and 4. The distribution of the number of workers per worker household and the distribution of household size are based on American Community Survey data.

TABLE C-3
IMPACT ANALYSIS SUMMARY
EMPLOYEE HOUSEHOLDS GENERATED
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

RESIDENTIAL UNIT DEMAND IMPACTS - PER 100 MARKET RATE UNITS

	Prototype 1	*Prototype 2*	*Prototype 3*	*Prototype 4*	*Prototype 5*
Number of New Households[1]	**Single Family - Large Lot**	**Single Family - Small Lot**	**Townhome**	**Condominium**	**Apartments**
Under 30% AMI	7.9	6.4	5.9	4.5	4.7
30% to 50% AMI	11.9	9.6	8.9	6.7	7.0
50% to 80% AMI	10.1	8.2	7.6	5.6	5.9
80% to 120% AMI	6.5	5.2	4.8	3.6	3.8
Subtotal through 120% AMI	36.3	29.4	27.2	20.4	21.4
Over 120% AMI	7.7	6.2	5.7	4.4	4.6
Total Employee Households	44.0	35.6	32.9	24.9	26.0

RESIDENTIAL UNIT DEMAND IMPACTS - PER EACH (1) MARKET RATE UNIT

	Prototype 1	*Prototype 2*	*Prototype 3*	*Prototype 4*	*Prototype 5*
Number of New Households[1]	**Single Family - Large Lot**	**Single Family - Small Lot**	**Townhome**	**Condominium**	**Apartments**
Under 30% AMI	0.08	0.06	0.06	0.04	0.05
30% to 50% AMI	0.12	0.10	0.09	0.07	0.07
50% to 80% AMI	0.10	0.08	0.08	0.06	0.06
80% to 120% AMI	0.06	0.05	0.05	0.04	0.04
Subtotal through 120% AMI	0.36	0.29	0.27	0.20	0.21
Over 120% AMI	0.08	0.06	0.06	0.04	0.05
Total Employee Households	0.44	0.36	0.33	0.25	0.26

Notes

[1] Households of retail, education, healthcare and other workers that serve residents of new market rate units.

AMI = Area Median Income

D. Mitigation Costs

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 (from page 29) 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 nexus cost." This is done for each of the prototype units. The concept is that impact fees paid by new market rate residential development in Campbell as mitigation for affordable housing impacts are used to finance new affordable units at a variety of income levels to address the impacts.

A key component of the analysis is the size of the gap between what households can afford and the cost of producing new housing in Campbell, known as the 'affordability gap.' Affordability gaps are calculated for each of the four categories of Area Median Income (AMI): Extremely Low (under 30% of median), Very Low (30% to 50%), Low (50% to 80%), and Moderate (80% to 120%). The following summarizes the analysis of mitigation cost which is based on the affordability gap or net cost to deliver units that are affordable to worker households in the lower income tiers.

City Assisted Affordable Unit 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 City practices and policies. The analysis assumes that the City will assist Moderate Income households earning between 80% and 120% of Area Median Income with ownership units. The prototype affordable unit should reflect a modest unit consistent with what the City is likely to assist using impact fee funds and appropriate for housing the average Moderate Income worker household. The affordable units financed with impact fee funds are assumed to be more modest than much of the market rate development activity in the City. The typical moderate income project assumed for Campbell is a two-bedroom unit for a three-person household. An attached condominium unit at approximately 30 units per acre (averaging 1,100 square feet per unit) is assumed.

For Low-, Very Low-, and Extremely Low-Income households, it is assumed that the City will assist in the development of multi-family rental units at a density of between 30 and 35 units per acre (averaging 900 square feet per unit). The analysis uses a two-bedroom affordable rental unit for a three-person household. The maximum allowable residential density in Campbell is currently 27 units per acre; however, the affordable projects assumed for purposes of the affordability gap analysis would be eligible for a State Density Bonus of 35% resulting in an effective maximum allowable density of 36 units per acre (27 units per acre X 1.35 = 36 units per acre with density bonus).

The affordability gap analysis is intended to reflect the types of affordable units likely to be assisted using impact fee revenues and may differ from affordable units being delivered through the City's inclusionary program. As an example, while the City's inclusionary program currently

produces ownership units for Low-Income households, in the use of impact fee revenues, it is assumed the City would follow the more common practice of assisting rental units to address the housing needs of this tier. Additionally, although the Extremely Low Income tier is not currently served by the City's inclusionary program, a share of units produced with impact fees could serve this income group.

Development Costs

KMA prepared an estimate of the total development cost for the two affordable housing prototypes described above (inclusive of land acquisition costs, direct construction costs, indirect costs of development, and financing) based on a review of development pro formas for recent affordable projects, data on recent residential land sale transactions, and other construction data sources such as RS Means. It is estimated that the new affordable for-sale condominium unit would have a total development cost of approximately $584,000 and the new affordable multi-family apartment unit would have a total development cost of approximately $500,000.

Development Costs for Affordable Units

Income Group	Unit Tenure / Type	Development Cost
Under 30% AMI	Rental	$500,000
30% to 50% AMI	Rental	$500,000
50% to 80% AMI	Rental	$500,000
80% to 120% AMI	Ownership	$584,000

Development cost assumptions were designed to be reflective of averages for affordable projects within three of the Santa Clara County jurisdictions participating in this multi-jurisdiction work program – the cities of Campbell, Los Altos, and Saratoga. These three cities are grouped together because average multi-family densities in these areas are assumed to be lower than in the other participating Santa Clara County cities – Santa Clara and Milpitas. The primary development cost variable among Campbell, Los Altos, and Saratoga is the cost of land. Based on recent residential land sale transactions, Campbell will likely represent the lower tier of land costs among these three jurisdictions. To make the affordability gaps broadly applicable, development cost estimates reflect land acquisition costs that are on the lower end of the range. This conservative approach has been utilized in order to avoid overstating costs applicable to lower land cost locations within the jurisdictions.

Development cost estimates were informed by KMA's review of pro forma information for over a dozen local multi-family affordable housing projects. Direct construction costs from these projects were adjusted to account for such factors as time, unit size, housing type, and project density to appropriately reflect the multi-family prototype assumed in the analysis. Other costs, such as land acquisition costs, are more site and area specific than direct construction costs and therefore the inputs for those costs were derived from other sources. Prevailing wages are

assumed because use of impact fee monies to finance construction of the affordable units would trigger a prevailing wage requirement. Tables D-1 and D-3 (page 42 and 44) provide further details.

The list below identifies some of the multi-family affordable projects for which KMA had pro forma information. In addition to the following projects, KMA also had access to the pro formas for several other active, pending projects, which are not listed due to their preliminary nature.

- Ashland-Kent, Alameda County
- Downtown Hayward Senior, Hayward
- Hayward Senior II, Hayward
- Laguna Commons, Fremont
- Marea Alta, San Leandro
- Onizuka Crossing, Sunnyvale
- Dublin Veterans Housing, Dublin
- Sequoia Belle Haven, Menlo Park
- South Hayward BART, Hayward
- San Lorenzo Senior, San Lorenzo
- South Second St Studios, San Jose
- Station Center 1 & 2, Union City
- University Ave Senior, East Palo Alto

In identifying recent affordable projects to inform the analysis of affordable unit development costs, the focus was on 100% affordable projects of the type the City would likely assist using impact fee revenues. Since no recent 100% affordable projects were identified in Campbell, cost information is drawn from projects in other local jurisdictions as listed above. Construction costs do not vary to a great degree from jurisdiction to jurisdiction; therefore, the examples used are expected to be representative for Campbell as well. Land costs are an exception for which there is a greater level of variation. As described above, the analysis incorporated local land sales data for the applicable West Valley cities in identifying affordable unit development costs. Affordable units produced through the City's inclusionary program are not used as examples for this analysis because these are units within primarily market rate projects not likely representative of the types of projects to be assisted using impact fees and would not reflect the applicable prevailing wage requirement.

Unit Values

For affordable ownership units, unit values are based on an estimate of the restricted affordable purchase prices for a qualifying Moderate Income household. For a 2-bedroom unit, KMA calculated the affordable sales price for the matching 3-person household at $367,000. Details of the calculation are presented in Table D-2 (page 42).

For the Extremely Low, Very Low, and Low-Income rental units, unit values are based upon the funding sources assumed to be available for the project. The funding sources include tax-exempt permanent debt financing supported by the project's operating income / rents, a deferred developer fee, and equity generated by 4% federal low income housing tax credits. The highly competitive 9% federal tax credits are not assumed because of the extremely limited number of projects that receive an allocation of 9% tax credits in any given year per geographic region.

Other affordable housing subsidy sources such as CDBG, HOME, AHP, Section 8, and various Federal and State funding programs 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.

On this basis, KMA estimated the unit value (total permanent funding sources) of the Extremely Low-Income rental units at $205,500, the Very Low-Income units at $281,500, and the Low-income units at $320,500 as shown in the table below. Maximum rents are per the California Tax Credit Allocation Committee (TCAC), consistent with the assumption that Low Income Housing Tax Credits will be used as part of the financing[10]. Details for these calculations are presented in Table D-3 (page 44).

Unit Values for Affordable Units

Income Group	Unit Tenure / Type	Household Size	Maximum Monthly Rent / Housing Cost	Unit Values / Sales Price	Basis for Unit Value
Under 30% AMI	Rental	3 persons	$753	$205,500	*Supported*
30% to 50% AMI	Rental	3 persons	$1,256	$281,500	*Debt + Tax*
50% to 80% AMI	Rental	3 persons	$1,507	$320,500	*Credit Equity*
80% to 120% AMI	Ownership	3 persons	$3,093	$367,000	*Supported Home Price*

Affordability Gap

The affordability gap is the difference between the cost of developing the affordable units and the unit value based on the restricted affordable rent or sales price.

The resulting affordability gaps are as follows:

[10] TCAC rents are slightly above those determined per the City's inclusionary ordinance with a difference of approximately $50 per month for a two bedroom Very Low-Income unit. Use of TCAC rents in the analysis is a conservative assumption in that it results in a lower affordability gap and lower resulting nexus findings than the use of rents under the City's inclusionary ordinance.

Affordability Gap Calculation

	Unit Value / Sales Price	Development Cost	Affordability Gap
Affordable Rental Units			
Extremely Low (Under 30% AMI)	$205,500	$500,000	$294,500
Very Low (30% to 50% AMI)	$281,500	$500,000	$218,500
Low (50% to 80% AMI)	$320,500	$500,000	$179,500
Affordable Ownership Units			
Moderate (80% to 120% AMI)	$367,000	$584,000	$217,000

AMI = Area Median Income

Tables D-1 through D-3 (beginning on page 42) present the detailed affordability gap calculations. Note that the affordability gaps are the same as those assumed in the non-residential nexus analysis.

Total Nexus Cost / Maximum Fee Levels

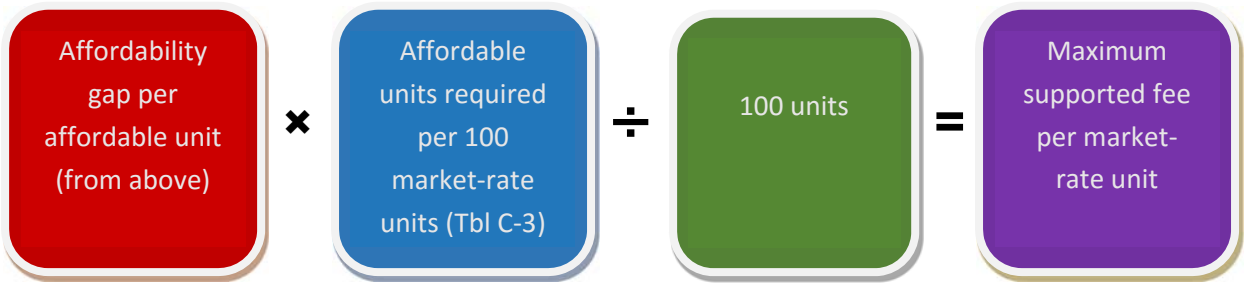
The last step in the linkage fee analysis marries the findings on the numbers of households in each of the lower income ranges associated with the five prototypes to the affordability gaps, or the costs of delivering housing to them in Campbell.

The table below summarizes the analysis of total nexus cost or maximum supported fee per market rate unit for each of the prototypes are as follows:

Total Nexus Cost Per Market Rate Unit, City of Campbell					
Income Category	*Single Family - Large Lot*	*Single Family - Small Lot*	*Townhome*	*Condominium*	*Apartments*
Extremely Low (0%-30% AMI)	$23,100	$18,700	$17,300	$13,200	$13,900
Very Low (30%-50% AMI)	$26,000	$21,000	$19,500	$14,600	$15,300
Low (50%-80% AMI)	$18,100	$14,700	$13,600	$10,100	$10,600
Moderate (80%-120% AMI)	$14,000	$11,300	$10,500	$7,800	$8,200
Total Supported Fee/ Nexus Costs	**$81,200**	**$65,700**	**$60,900**	**$45,700**	**$48,000**

The “Total Nexus Cost per Market Rate Unit” in the table above is the results of the calculation shown in the illustration below. The Affordability Gaps are drawn from the prior discussion.

Calculation of Maximum Supported Fee Per Market-Rate Unit



The Total Nexus Costs, or Mitigation Costs, indicated above, may also be expressed on a per square foot level. The square foot area of the prototype unit used throughout the analysis becomes the basis for the calculation (the per unit findings from above are divided by unit size to get the per square foot findings). The results per square foot of building area (based on net rentable or sellable square feet excluding parking areas, external corridors and other common areas) are as follows:

Total Nexus Cost Per Sq. Ft., City of Campbell					
	Single Family - Large Lot	*Single Family - Small Lot*	*Townhome*	*Condominium*	*Apartments*
Unit Size (Sq Ft)	*3,000 SF*	*1,800 SF*	*1,500 SF*	*1,000 SF*	*1,000 SF*
Extremely Low (0%-30% AMI)	$7.70	$10.40	$11.50	$13.20	$13.90
Very Low (30%-50% AMI)	$8.70	$11.70	$13.00	$14.60	$15.30
Low (50%-80% AMI)	$6.00	$8.20	$9.10	$10.10	$10.60
Moderate (80%-120% AMI)	$4.70	$6.30	$7.00	$7.80	$8.20
Total Nexus Costs	**$27.10**	**$36.60**	**$40.60**	**$45.70**	**$48.00**

These costs express the total linkage or nexus costs for the five prototype developments in the City of Campbell. These total nexus costs represent the ceiling for any requirement placed on market rate development. **The totals are not recommended levels for fees; they represent only the maximums established by the analysis, below which impact fee levels may be set.**

Table D-1
Affordability Gap Calculation for Moderate Income
Residential Nexus Analysis
Campbell, CA

I. Affordable Prototype	
Tenure	For-Sale
Density	30 du/acre
Unit Size	1,100 SF
Bedrooms	2-Bedrooms
Construction Type	Condominiums (Type V)

II. Development Costs	Per Unit
Land Acquisition	$138,000
Directs	$319,000 [1]
Indirects	$111,000
Financing	$16,000
Total Costs	$584,000

III. Affordable Sales Price	Per Unit
Household Size	3 person HH
110% of Median Income [2]	$106,040
Maximum Affordable Sales Price	$367,000 [3]

IV. Affordability Gap	Per Unit
Affordable Sales Price	$367,000
(Less) Development Costs	($584,000)
Affordability Gap - Moderate Income	($217,000)

[1] Construction costs include prevailing wages.

[2] Per California Health and Safety Code Section 50052.5, the affordable sale price for a Moderate Income household is to be based on 110% of AMI, whereas qualifying income can be up to 120% of AMI.

[3] See Table D-2 for Moderate Income home price estimate.

Table D-2
Estimated Affordable Home Prices - Moderate Income
Residential Nexus Analysis
Campbell, CA

Unit Size	2-Bedroom Unit	3-Bedroom Unit	4-Bedroom Unit
Household Size	3-person HH	4-person HH	5-person HH
100% AMI Santa Clara County 2016	$96,400	$107,100	$115,650
Annual Income @ 110%	$106,040	$117,810	$127,215
% for Housing Costs	35%	35%	35%
Available for Housing Costs	$37,114	$41,234	$44,525
(Less) Property Taxes	($4,392)	($4,884)	($5,232)
(Less) HOA	($2,700)	($2,820)	($2,940)
(Less) Utilities	($1,416)	($1,776)	($2,208)
(Less) Insurance	($700)	($800)	($900)
(Less) Mortgage Insurance	($4,698)	($5,211)	($5,603)
Income Available for Mortgage	$23,208	$25,743	$27,643
Mortgage Amount	$348,300	$386,300	$414,800
Down Payment (homebuyer cash)	$18,300	$20,350	$21,800
Supported Home Price	$366,600	$406,650	$436,600
Key Assumptions			
- Mortgage Interest Rate (1)	5.30%	5.30%	5.30%
- Down Payment (2)	5.00%	5.00%	5.00%
- Property Taxes (% of sales price) (3)	1.20%	1.20%	1.20%
- HOA (per month) (4)	$225	$235	$245
- Utilities (per month) (5)	$118	$148	$184
- Mortgage Insurance (% of loan amount)	1.35%	1.35%	1.35%

(1) Mortgage interest rate based on 15-year Freddie Mac average; assumes 30-year fixed rate mortgage.
(2) Down payment amount is an estimate for Moderate Income homebuyers.
(3) Property tax rate is an estimated average for new projects.
(4) Homeowners Association (HOA) dues is an estimate for the average new project.
(5) Utility allowances from Santa Clara County Housing Authority (2016).

Table D-3
Affordability Gaps for Extremely Low, Very Low, and Low Income
Residential Nexus Analysis
Campbell, CA

		Extremely Low	Very Low	Low Income
I. Affordable Prototype				
Tenure		Rental		
Average Unit Size		900 square feet		
Density		~30-35 du/acre		
II. Development Costs [1]		Per Unit	Per Unit	Per Unit
Land Acquisition		$129,000	$129,000	$129,000
Directs		$261,000	$261,000	$261,000
Indirects		$91,000	$91,000	$91,000
Financing		$19,000	$19,000	$19,000
Total Costs		$500,000	$500,000	$500,000
III. Supported Financing				
Affordable Rents				
Average Number of Bedrooms		2 Bedrooms	2 Bedrooms	2 Bedrooms
Maximum TCAC Rent [2]		$753	$1,256	$1,507
(Less) Utility Allowance [3]		($74)	($74)	($74)
Maximum Monthly Rent		$679	$1,182	$1,433
Net Operating Income (NOI)				
Gross Potential Income		Per Unit	Per Unit	Per Unit
Monthly		$679	$1,182	$1,433
Annual		$8,148	$14,184	$17,196
Other Income		$250	$250	$250
(Less) Vacancy	5.0%	($420)	($722)	($872)
Effective Gross Income (EGI)		$7,978	$13,712	$16,574
(Less) Operating Expenses		($5,600)	($5,600)	($5,600)
(Less) Property Taxes [4]		$0	$0	$0
Net Operating Income (NOI)		$2,378	$8,112	$10,974
Permanent Financing				
Permanent Loan (tax exempt)		$32,000	$108,000	$147,000
Deferred Developer Fee		$2,500	$2,500	$2,500
4% Tax Credit Equity		$171,000	$171,000	$171,000
Total Sources		$205,500	$281,500	$320,500
IV. Supported Financing				
Supported Permanent Financing		$205,500	$281,500	$320,500
(Less) Total Development Costs		($500,000)	($500,000)	($500,000)
Affordability Gap		($294,500)	($218,500)	($179,500)

[1] Development costs estimated by KMA based on affordable project pro formas in Santa Clara County (includes prevailing wages) and residential land sale comps.

[2] Maximum rents per Tax Credit Allocation Committee (TCAC) for projects utilizing Low Income Housing Tax Credits.

[3] Utility allowances from Santa Clara County Housing Authority (2016).

[4] Assumes tax exemption for non-profit general partner.

III. ADDENDUM: ADDITIONAL BACKGROUND AND NOTES ON SPECIFIC ASSUMPTIONS

No Excess Supply of Affordable Housing

An assumption of this residential nexus analysis is that there is no excess supply of affordable housing available to absorb or offset new demand; therefore, new affordable units are needed to mitigate the new affordable housing demand generated by development of new market rate residential units. Based on a review of the current Census information for Campbell, conditions are consistent with this underlying assumption. According to the Census (2010 to 2014 ACS), approximately 40% of all households in the City were paying thirty percent or more of their income on housing. In addition, housing vacancy is minimal.

Geographic Area of Impact

The analysis quantifies impacts occurring within Santa Clara County. While many of the impacts will occur within the City, some impacts will be experienced elsewhere in Santa Clara County and beyond. The IMPLAN model computes the jobs generated within the county and sorts out those that occur beyond the county boundaries. The KMA Jobs Housing Nexus Model analyzes the income structure of jobs and their worker households, without assumptions as to where the worker households live.

In summary, the nexus analysis quantifies all the jobs impacts occurring within the county and related worker households. Job impacts, like most types of impacts, occur irrespective of political boundaries. And like other types of impact analyses, such as traffic, impacts beyond jurisdictional boundaries are experienced, are relevant, and are important.

For clarification, counting all impacts associated with new housing units does not result in double counting, even if all jurisdictions were to adopt similar programs. The impact of a new housing unit is only counted once, in the jurisdiction in which it occurs. Obviously, within a metropolitan region such as the Bay Area, there is much commuting among jurisdictions, and cities house each other's workers in a very complex web of relationships. The important point is that impacts of residential development are only counted once.

Affordability Gap

The use of the affordability gap for establishing a maximum fee supported from the nexus analysis is grounded in the concept that a jurisdiction will be responsible for delivering affordable units to mitigate impacts. The nexus analysis has established that units will be needed at one or more different affordability levels and the type of unit to be delivered depends on the income/affordability level. In Campbell, the City is anticipated to assist in the development of rental units for households with incomes up to 80% of AMI and ownership units for moderate income households with incomes from 80% to 120% of AMI.

The units assisted by the public sector for affordable households are usually small in square foot area (for the number of bedrooms) and modest in finishes and amenities. As a result, in some communities these units are similar in physical configuration to what the market is delivering at market rate; in other communities (particularly very high income communities), they may be smaller and more modest than what the market is delivering. Parking, for example, is usually the minimum permitted by the code. Where there is a wide range in land cost per acre or per unit, it may be assumed that affordable units are built on land parcels in the lower portion of the cost range. KMA tries to develop a total development cost summary that represents the lower half of the average range, but not so low as to be unrealistic.

Excess Capacity of Labor Force

In the context of economic downturns such as the last recession, the question is sometimes raised as to whether there is excess capacity in the labor force to the extent that consumption impacts generated by new households will be in part, absorbed by existing jobs and workers, thus resulting in fewer net new jobs. In response, an impact analysis of this nature is a one-time impact requirement to address impacts generated over the life of the project. Recessions are temporary conditions; a healthy economy will return and the impacts will be experienced. The economic cycle also self-adjusts. Development of new residential units is likely to be reduced until conditions improve or there is confidence that improved conditions are imminent. When this occurs, the improved economic condition of the households in the local area will absorb the current underutilized capacity of existing workers, employed and unemployed. By the time new units become occupied, economic conditions will have likely improved.

The Burden of Paying for Affordable Housing

Campbell's inclusionary housing program does not place all burden for the creation of affordable housing on new residential construction. The burden of affordable housing is also borne by many sectors of the economy and society. A most important source in recent years of funding for affordable housing development comes from the federal government in the form of tax credits (which result in reduced income tax payment by tax credit investors in exchange for equity funding). Additionally, there are other federal grant and loan programs administered by the Department of Housing and Urban Development and other federal agencies. The State of California also plays a major role with a number of special financing and funding programs. Much of the state money is funded by voter approved bond measures paid for by all Californians.

Local governments play a large role in affordable housing in a variety of ways such as local housing authorities that directly provide affordable units, efforts to foster development of more affordable housing types and parking standard reductions and fee waivers for affordable units that lower development costs. In addition, private sector lenders play an important role, some voluntarily and others less so with the requirements of the Community Reinvestment Act. Then

there is the non-profit sector, both sponsors and developers that build much of the affordable housing.

In summary, all levels of government and many private parties, for profit and non-profit contribute to supplying affordable housing. Residential developers are not being asked to bear the burden alone any more than they are assumed to be the only source of demand or cause for needing affordable housing in our communities. Based on past experience, affordable housing requirements placed on residential development will satisfy only a small percentage of the affordable housing needs in the City of Campbell.

APPENDIX A: RESIDENTIAL MARKET SURVEY

I. INTRODUCTION

One of the underlying components of the Residential Nexus Study is the identification of residential building prototypes that are expected to be developed in the City of Campbell both today and in the future, and what the market prices and rents for those prototypes will be. These market prices and rents are then used to estimate the incomes of the new households that will live in the new units and quantify the number and types of jobs created as a result of their demand for goods and services. In this Appendix A, KMA describes the residential building prototypes utilized for the analysis, summarizes the residential market data researched, and describes the market price point conclusions drawn therefrom.

II. RESIDENTIAL PROTOTYPES

KMA worked with City staff to select representative development prototypes envisioned to be developed in Campbell in the future. It is noted that the condominium prototype, a four-story development with structured parking, is not currently being built in Campbell but has been included due to the potential that this type of project may be built in the future. The prototypes are presented on Appendix A Table 1 and summarized below.

Campbell Residential Prototypes

	Lot Size / Density	*Average Unit Size*
For-Sale Prototypes		
1) Large Lot Single Family	7,000 – 11,000 sq. ft.	3,000 sq. ft.
2) Small Lot Single Family	2,000 – 4,000 sq. ft.	1,800 sq. ft.
3) Townhomes	12 – 20 du/acre	1,500 sq. ft.
4) Condominiums	30 – 40 du/acre	1,000 sq. ft.
Rental Prototype		
5) Apartments	14 – 20 du/acre	1,000 sq. ft.

Source: KMA in collaboration with City of Campbell. See Appendix A, Table 1 for more information.

III. MARKET SURVEY & PRICING ESTIMATES

A. Residential Building Activity

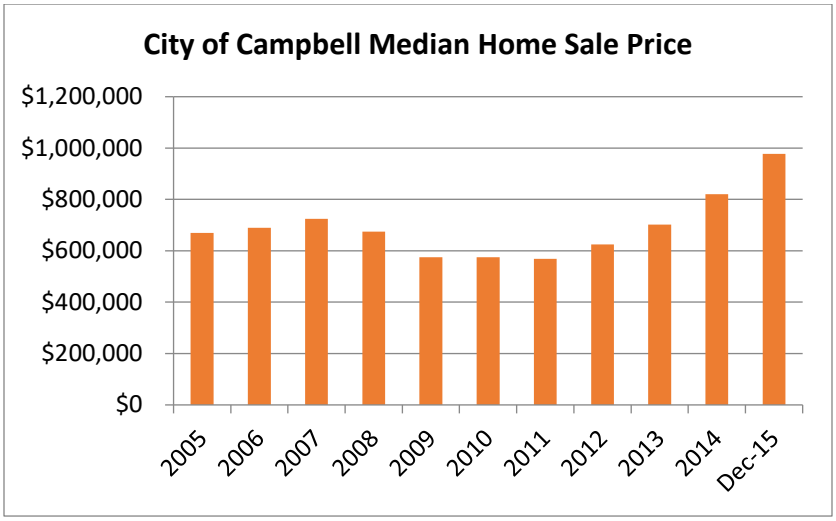
At the time of the market survey in late 2015 and early 2016, the housing market in Campbell was strong, fueled by high-quality residential neighborhoods, a strong public school system and proximity to high-tech employment. There are several recently built, under construction or proposed residential developments in Campbell at this time, including single family detached units, townhome projects and apartment projects. To develop an understanding of the types of units being built, KMA gathered development program and pricing information (when available) for recent or current projects in Campbell. The list of projects that we reviewed is shown in the table below.

Current & Recent Development Projects

Project	*Unit Type*
140 South Second St	Single Family Detached
1162 S. San Tomas Aquino	Single Family Detached
1411 & 1421 Westmont	Single Family Detached
1181 Abbott	Single Family Detached
Palomar	Small Lot Single Family
1685 Bucknall Drive	Small Lot Single Family
258-268 Union	Townhomes
Cottage Place	Townhomes & Single Family
Penny Lane	Townhomes & Apartments
Revere (1677 S. Bascom)	Apartments
St. Anton (Railroad Ave)	Apartments

Overview of For-Sale Market

The ownership housing market in Campbell has fully recovered from the recession, with median prices significantly higher than pre-recession levels. In 2014, the median home price in Campbell was $820,000, which is almost $100,000 more than the pre-recession high in 2007. A year later, in 2015, the median home price approached $1 million, reaching $977,500 in December 2015.



Source: Dataquick

Additional data can be found on Appendix A Table 2.

B. Recent Home Prices of Newer Residential Units

At the time of the market survey, there were two new for-sale projects being marketed in Campbell – a townhome project and a small-lot single family detached project. Appendix A Table 3 presents market sales prices for these units.

To supplement this data, KMA analyzed recent resale prices of homes built since 2005 and resold since November 2013. Appendix A Table 4 presents a summary of the resale data. KMA categorized the sales by unit type – condominium, townhomes and single family detached sales. Within the single family detached resales, the units are organized by lot size (greater or less than 5,000 square foot lots). KMA then calculated the average unit size and sales price, by lot size. The results are shown on Appendix A Table 4.

C. For-Sale Prototype Price Estimates

The current and recent pricing for new homes, the resale pricing of newer home developments, input from City staff and KMA's experience in other jurisdictions formed the basis for KMA's prototype price estimates. The prototype pricing estimates took into consideration the following factors:

- In general, newly built homes sell for a premium over re-sales, all else being equal;
- Typically, larger homes sell for a higher total price but a lower price per square foot than smaller homes.

The table below summarizes KMA's conclusions regarding current for-sale prototype unit size and pricing.

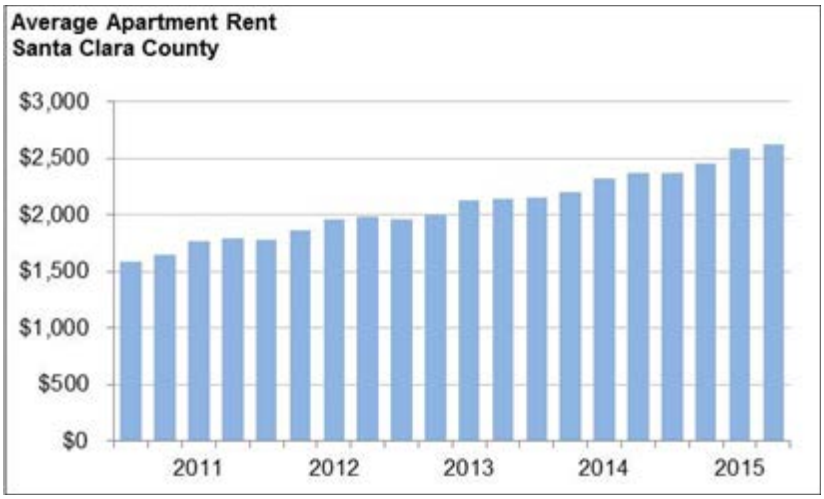
For-Sale Prototype Price Estimates

	Unit Size	*Price*	*Price PSF*
Large Lot Single Family Detached	3,000 sf	$1,590,000	$530
Small Lot Single Family Detached	1,800 sf	$1,000,000	$556
Townhomes	1,500 sf	$875,000	$583
Condominiums	1,000 sf	$650,000	$650

Source: KMA market study in collaboration with the City of Campbell.

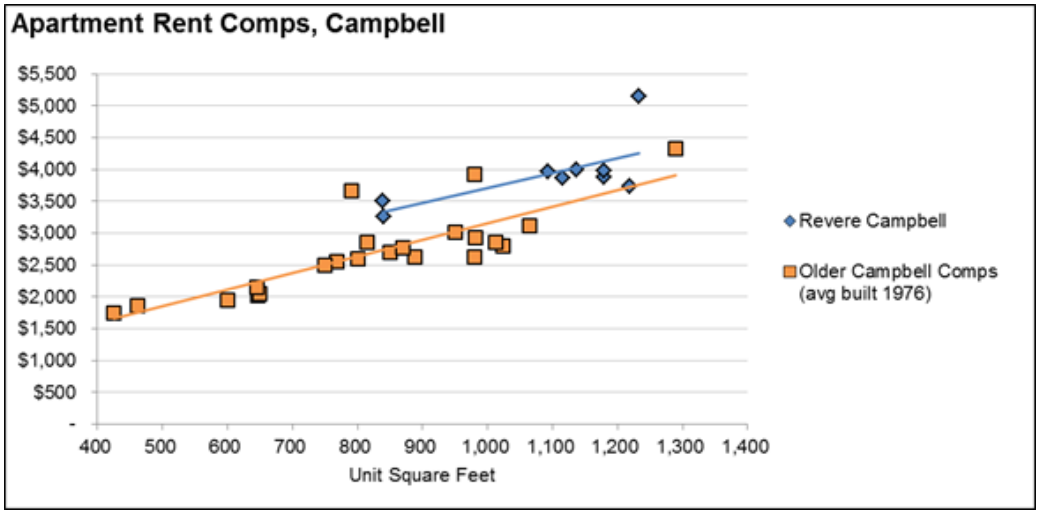
D. Rental Housing Market

In recent years, apartment market conditions have been strong throughout Santa Clara County as exhibited by rising rents and occupancy rates. New development projects have been built and are in the development pipeline throughout the county, particularly around public transit stations and in downtown settings where access to job centers and neighborhood services is convenient.



Source: RealAnswers

In order to inform achievable market rents for new apartment developments in Campbell, KMA performed a survey of asking apartment rents in select properties. The survey included one newly built property, Revere Campbell, and eight older properties. Rents for these properties are shown in the chart below.



Source: RealAnswers, on-line listings (winter 2015/16)
Full survey details are provided in Appendix Table 5.

Based on the market rent data, KMA estimates that the average rent for a newly developed apartment project in Campbell, assuming an average unit size of 1,000 square feet, would be in the range of $3,600 (or $3.60/square foot) which is similar to the asking rents at Revere and roughly 10% higher than the older properties in Campbell.

IV. MARKET SURVEY CONCLUSIONS

A full description of the prototypes, including examples of recent developments, average unit sizes, bedroom mix, parking ratios, and densities are shown in Appendix A Table 1. The prototypes are the starting point of the nexus analysis.

APPENDIX A, TABLE 1
MARKET RATE RESIDENTIAL PROTOTYPES
RESIDENTIAL NEXUS ANALYSIS
CITY OF CAMPBELL

	Large Lot Single Family Detached	Small Lot Single Family Detached	Townhome	Condominium	Apartments
Example Projects	140 S. Second St. 1181 Abbott St. 1411 & 1421 Westmont 1162 S. San Tomas Aquino	Palomar 1689 Bucknall Drive Cottage Place (SFDs)	258 - 268 Union Penny Lane (THs) Cottage Place (THs)	Penny Lane (Rentals) *condo mapped	Penny Lane (Rentals) Revere St. Anton
Density	7,000 - 11,000 sf lots	2,000 - 4,000 sf lots	12 - 20 dua	30 - 40 dua	14 - 20 dua
Building Type	Two stories	Two and Three stories	Three stories	Four stories (excl. garage)	Two to four stories
Unit Mix	3, 4 and 5 BRs	3 and 4BR	3 BR	1, 2 and 3 BR	1, 2 and 3 BR
Average Unit Size (excl. garage)	3,000 sf	1,800 sf	1,500 sf	1,000 sf	1,000 sf
Average No. of Bedrooms	4.0 BR	3.25 BR	3.0 BR	1.5 BR	1.50 BR
Parking Type	Attached garage	Attached garage	Attached garage	Ground-floor garage (podium), multi-story garage (wrap), or subterranean	Surface parking lot (carports)
Average Parking Spaces	2.0	2.0	2.0	1.5 - 2.0	1.5-2.0
Sales Price/Rent per square foot	$1,590,000 $530	$1,000,000 $556	$875,000 $583	$650,000 $650	$3,600 $3.60

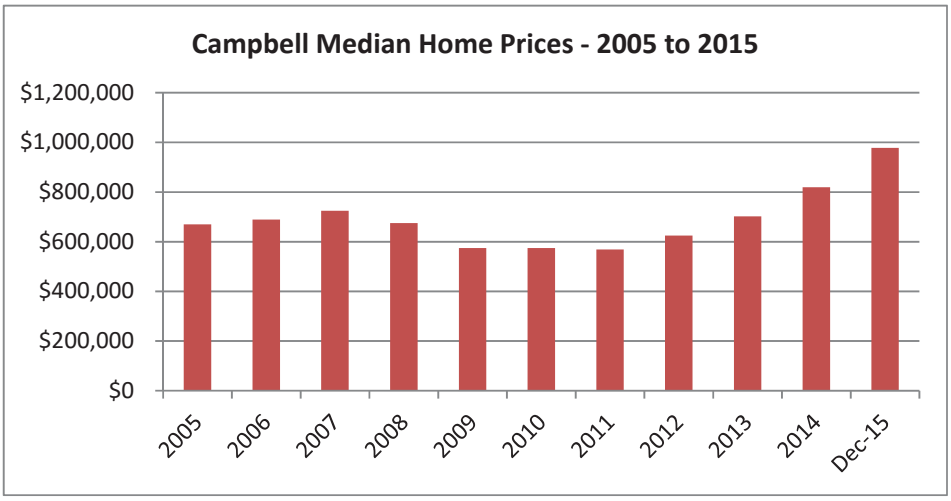
Appendix A, Table 2
Median Home Prices
Campbell, CA

Median Home Prices, Santa Clara County Jurisdictions

	2014	2013	% Change
Los Altos	$2,351,000	$2,016,000	17%
Palo Alto	$2,100,000	$1,720,000	22%
Saratoga	$1,876,500	$1,610,000	17%
Cupertino	$1,428,500	$1,200,000	19%
Stanford	$1,419,250	$3,450,000	-59%
Los Gatos	$1,410,000	$1,265,000	11%
Mountain View	$975,050	$805,000	21%
Sunnyvale	$875,000	$764,750	14%
San Martin	$825,000	$655,000	26%
Campbell	**$820,000**	**$702,500**	**17%**
Santa Clara	$745,000	$638,000	17%
Santa Clara County	**$710,000**	**$648,000**	**10%**
Milpitas	$652,000	$585,000	11%
Morgan Hill	$650,500	$635,000	2%
San Jose	$630,000	$572,000	10%
Gilroy	$575,000	$500,000	15%
Alviso	$482,500	$472,500	2%

Campbell Median Home Sale Prices, 2005-2015

Year	Median Price	%Change
2005	$670,000	
2006	$689,500	3%
2007	$725,000	5%
2008	$675,000	-7%
2009	$575,000	-15%
2010	$575,000	0%
2011	$569,000	-1%
2012	$625,000	10%
2013	$702,500	12%
2014	$820,000	17%
Dec-15	$977,500	19%



Source: DataQuick. Includes single family and attached homes; includes new homes and resales.

APPENDIX A TABLE 3
NEW HOME SALES
RESIDENTIAL NEXUS ANALYSIS
CITY OF CAMPBELL, CA

City / Project	# of Units	Bd.	SF	Sales Price	$/SF	Notes
Santa Clara / Roma						
Plan 1	11	2	1,371	$952,000	$694	Townhomes
Plan 2	10	2	1,401	$984,000	$702	Attached garage parking.
Plan 3	12	3	1,727	$1,021,000	$591	30 dua.
Plan 4	10	2	1,822	$1,043,000	$572	DR Horton
Plan 5	7	3	1,951	$1,129,000	$579	HOA Dues: $269.
	50	2.4	1,634	$1,017,940	$631	
Santa Clara / Siena						
Plan 1	12	3	1,638	$1,195,000	$730	Detached.
Plan 2	14	3	1,762	$1,235,000	$701	3,000 sf lots, avg.
Plan 3	14	4	1,931	$1,295,000	$671	DR Horton
Plan 4	10	4	1,957	$1,305,000	$667	HOA Dues: $229.
	50	3.5	1,819	$1,256,200	$692	
Santa Clara / Turin						
Plan 1	9	3	1,600	$1,082,000	$676	Townhomes
Plan 2	7	2	1,723	$1,128,000	$655	Attached garage parking.
Plan 3	7	2	1,730	$1,122,000	$649	20 dua. 1,300 sf lots, avg.
Plan 4	10	3	1,820	$1,197,000	$658	DR Horton
Plan 5	10	4	1,961	$1,234,000	$629	HOA Dues: $229
Plan 6	7	3	2,036	$1,133,000	$556	
	50	2.9	1,813	$1,154,580	$639	
Campbell / Pennylane						
Hockney	22	3	1,478	$950,000	$643	Townhomes.
DeKooning	22	3	1,668	$985,000	$591	26 dua.
Miro	21	3	2,077	$1,085,000	$522	HOA Dues: $199.
	65	3	1,736	$1,005,462	$586	
Campbell / Palomar						
Plan 1	5	3	1,479	$1,010,000	$683	Detached.
Plan 3	5	4	1,680	$1,070,000	$637	4,800 sf lots, avg.
Plan 2	6	3	1,697	$1,100,000	$648	Taylor Morrison
Plan 3A	6	4	2,159	$1,200,000	$556	HOA Dues: $0
	22	3.5	1,770	$1,100,000	$628	

Source: Real Estate Economics, November 2015, except where noted.

APPENDIX A TABLE 4
RECENT HOME SALES
RESIDENTIAL NEXUS ANALYSIS
CITY OF CAMPBELL, CA

Units Built Since 2005 and Sold Since November 2013

	Yr. Built	BD	BA	Net SF	Lot SF	Sale Price	$/SF	Sale Date
Multifamily Units								
Condo								
912 Campisi Way 414	2008	2	2	1,532	-	$837,000	$546	05/26/2015
912 Campisi Way 317	2008	2	3	1,661	-	$730,000	$439	10/28/2014
912 Campisi Way 114	2008	2	2	1,414	-	$700,000	$495	05/15/2014
912 Campisi Way 201	2008	3	2.5	1,765	-	$842,000	$477	2/9/2016
912 Campisi Way 313	2008	2	2	1,202	-	$720,000	$599	1/22/2016
912 Campisi Way 302	2008	3	2	1,717		$805,000	$469	12/16/2015
Average				1,549		$772,333	$504	
21 N 2nd St 13	2007	1	1	1,184	570	$450,000	$380	12/06/2013
21 N 2nd St 11	2007	2	2	1,512		$800,000	$529	8/10/2015
Average				1,348		$625,000	$455	
Townhome								
600 W Hacienda Ave	2007	3	3	1,614	1,970	$704,000	$436	03/25/2014
632 W Sunnyoaks Ave	2005	3	3	1,622	1,741	$755,000	$465	05/13/2014
110 S 1st St	2006	3	2	1,223	1,236	$805,000	$658	09/14/2015
458 Salmar Ave	2008	3	3	1,782	1,750	$1,035,000	$581	09/09/2015
452 Salmar Ave	2008	3	3	1,782	1,760	$975,000	$547	05/18/2015
178 Salmar Ter	2008	3	3	1,872	1,362	$940,000	$502	03/07/2015
186 Salmar Ter	2008	3	3	1,777	1,675	$902,000	$508	09/12/2014
175 Salmar Ter	2008	3	3	1,657	1,222	$835,000	$504	04/23/2014
120 Shelley Ave	2006	3	3	1,681	1,921	$835,000	$497	04/07/2014
249 Shelley Ave	2007	3	3	1,594	2,146	$890,000	$558	08/05/2015
255 Shelley Ave	2007	3	3	1,594	2,186	$900,000	$565	08/05/2015
2725 Montavo Pl	2006	3	3	1,529	1,519	$880,000	$576	06/16/2015
Average, All THs				**1,644**	**1,707**	**$871,333**	**$533**	

APPENDIX A TABLE 4
RECENT HOME SALES
RESIDENTIAL NEXUS ANALYSIS
CITY OF CAMPBELL, CA

Units Built Since 2005 and Sold Since November 2013

	Yr. Built	BD	BA	Net SF	Lot SF	Sale Price	$/SF	Sale Date
Single Family Units	Yr. Built	BD	BA	Net SF	Lot SF	Sale Price	$/SF	Sale Date
New (estimated)								
15 Colleen Way	2014	4	4	2,454	7,258	$1,480,000	$603	09/18/2014
25 Colleen Way	2014	3	3	2,154	6,871	$1,265,000	$587	10/10/2014
1147 Laurance Hill Ct	2014	5	5	3,590	9,148	$1,714,000	$477	10/02/2014
1359 Juanita Way	2014	4	4	4,070	17,539	$1,998,000	$491	06/30/2014
117 Sunnyside Ave	2014	3	4	1,918	3,640	$1,055,000	$550	01/27/2015
				2,837	8,891	$1,502,400	$542	
Resales - Lot > 5,000 sf								
1185 El Solyo Ave	2010	4	4	2,896	15,998	$1,560,000	$539	12/11/2013
1420 Capri Dr	2006	4	5	3,811	15,157	$1,935,000	$508	05/29/2015
1561 Van Dusen Ln	2007	4	4	3,944	13,103	$1,799,000	$456	04/09/2015
1915 Dry Creek Rd	2007	5	5	3,877	12,178	$2,225,000	$574	05/19/2014
1117 Hazelwood Ave	2013	4	4	3,361	11,692	$1,370,000	$408	04/10/2014
236 N Central Ave	2007	3	3	3,776	11,403	$1,765,000	$467	01/10/2014
1310 Capri Dr	2006	2	4	2,083	11,107	$1,425,000	$684	08/10/2015
1857 W Campbell Ave	2006	6	6	4,234	11,093	$1,300,000	$307	11/14/2013
1150 Steinway Ave	2006	4	4	2,965	10,491	$1,745,000	$589	09/16/2015
1775 Regina Way	2012	5	4	2,673	9,044	$1,815,000	$679	03/21/2014
663 El Patio Dr	2011	4	4	2,728	8,861	$1,400,000	$513	10/23/2014
800 W Sunnyoaks Ave	2008	3	4	2,855	8,817	$1,570,000	$550	02/19/2015
167 Llewellyn Ave	2006	3	5	3,039	7,407	$1,575,000	$518	03/24/2015
202 Beethoven Ln	2006	3	4	2,130	5,412	$1,400,000	$657	08/03/2015
115 Sunnyside Ave	2008	4	4	2,504	5,107	$1,055,000	$421	09/16/2014
Average				3,125	10,458	$1,595,933	$525	
Resales - Lot < 5,000 sf								
1442 Hoffman Ln	2005	3	4	2,340	4,479	$1,165,000	$498	05/15/2014
312 Redding Rd	2009	2	2	1,093	4,460	$860,000	$787	03/25/2015
215 Rachel Ct	2008	4	4	2,505	4,217	$1,350,000	$539	03/02/2015
1300 Bronwen Way	2006	3	3	1,585	4,094	$1,160,000	$732	10/08/2015
133 S 1st St	2008	4	3	2,735	3,779	$999,000	$365	12/14/2013
232 Everett Ave	2009	3	3	1,475	3,281	$1,250,000	$847	04/07/2015
1306 Bronwen Way	2006	3	3	1,363	3,218	$1,010,000	$741	10/01/2015
1302 Bronwen Way	2006	3	3	1,297	3,143	$1,060,000	$817	10/16/2015
1303 Bronwen Way	2006	3	3	1,297	3,132	$812,000	$626	12/27/2013
109 George Ct	2009	3	4	1,951	2,864	$750,000	$384	07/22/2014
117 George Ct	2009	3	4	1,985	2,673	$950,000	$479	09/16/2014
115 George Ct	2009	3	4	1,965	2,658	$750,000	$382	07/22/2014
111 George Ct	2009	3	4	1,965	2,607	$1,150,000	$585	04/20/2015
696 Gale Dr	2012	3	3	1,555	2,515	$1,030,000	$662	04/01/2015
16 Maravilla Ct	2011	3	3	1,590	2,496	$950,000	$597	09/04/2015
145 Kennedy Ave	2006	3	3	1,597	2,368	$875,000	$548	09/18/2014
106 Graham Dr	2012	3	3	1,606	2,131	$1,029,000	$641	03/20/2015
547 W Rincon Ave	2010	3	3	1,470	1,410	$942,000	$641	03/06/2015
Average				1,743	3,085	$1,005,111	$604	

Sources: ListSource, November 2015.

Appendix A. Table 5.
Comparable Apartment Rents
Campbell

	Sq. Ft.	Monthly Rent Low	Monthly Rent High	$/SF Low	$/SF High	Notes
Revere Campbell						
1 Bd / 1 Ba	839	$3,510	$3,510	$4.18	$4.18	1725 S. Bascom Ave, Campbell
1 Bd / 1 Ba	840	$3,135	$3,385	$3.73	$4.03	Built: 2015
1 Bd / 1 Ba	1,218	$3,675	$3,800	$3.02	$3.12	
2 Bd / 2 Ba	1,093	$3,950	$3,995	$3.61	$3.66	
2 Bd / 2 Ba	1,115	$3,865	$3,870	$3.47	$3.47	
2 Bd / 2 Ba	1,137	$3,995	$3,995	$3.51	$3.51	
2 Bd / 2 Ba	1,179	$3,745	$4,025	$3.18	$3.41	
2 Bd / 2 Ba	1,179	$3,925	$4,050	$3.33	$3.44	
3 Bd / 2 Ba	1,233	$5,115	$5,190	$4.15	$4.21	
Avalon Campbell						
1 Bd / 1 Ba	768	$2,475	$2,620	$3.22	$3.41	508 Railway Ave, Campbell
2 Bd / 2 Ba	1,064	$3,055	$3,175	$2.87	$2.98	Built: 1995
3 Bd / 3 Ba	1,289	$4,320		$3.35		348 Units
Woodleaf Apartments						
1 Bd / 1 Ba	600	$1,944	$1,944	$3.24	$3.24	325 Union Ave, Campbell
2 Bd / 1 Ba	800	$2,599	$2,599	$3.25	$3.25	Built: 1987
2 Bd / 2 Ba	850	$2,703	$2,703	$3.18	$3.18	178 Units
Pebble Creek						
1 Bd / 1 Ba	647	$2,022	$2,022	$3.13	$3.13	3685 Bascom Ave, Campbell
2 Bd / 1 Ba	888	$2,621	$2,621	$2.95	$2.95	Built: 1979
2 Bd / 1.5 Ba	982	$2,721	$3,141	$2.77	$3.20	63 Units
The Commons						
1 Bd / 1 Ba	461	$1,845	$1,866	$4.00	$4.05	275 Union Ave, Campbell
2 Bd / 1 Ba	815	$2,846	$2,869	$3.49	$3.52	Built: 1973
						264 Units
La Valencia						
1 Bd / 1 Ba	790	$2,311	$5,027	$2.93	$6.36	350 Budd Ave, Campbell
2 Bd / 1 Ba	870	$2,509	$3,033	$2.88	$3.49	Built: 1973
2 Bd / 2 Ba	980	$2,395	$2,856	$2.44	$2.91	234 Units
2 Bd / 2 Ba	980	$2,562	$5,280	$2.61	$5.39	
Campbell Plaza Apartments						
1 Bd / 1 Ba	650	$1,995	$2,095	$3.07	$3.22	710 Nido Dr, Campbell
2 Bd / 1.5 Ba	1,024	$2,795	$2,795	$2.73	$2.73	Built: 1972
						121 Units
Parc at Pruneyard						
1 Bd / 1 Ba	750	$2,405	$2,590	$3.21	$3.45	225 Union Ave, Campbell
2 Bd / 1.5 Ba	950	$2,775	$3,245	$2.92	$3.42	Built: 1966
						252 Units
Pruneridge Plaza						
Studio	425	$1,750	$1,750	$4.12	$4.12	845 S Bascom Ave, Campbell
1 Bd / 1 Ba	645	$2,150	$2,150	$3.33	$3.33	Built: 1961
2 Bd / 2 Ba	1,012	$2,850	$2,850	$2.82	$2.82	106 Units

Source: RealFacts, on-line listings (Winter 2015/16).

APPENDIX B: WORKER OCCUPATIONS AND COMPENSATION LEVELS

RESIDENTIAL NEXUS APPENDIX B TABLE 1
WORKER OCCUPATION DISTRIBUTION, 2014
SERVICES TO HOUSEHOLDS EARNING $100 - $150K, RESIDENT SERVICES
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

Major Occupations (2% or more)	Worker Occupation Distribution[1] Services to Households Earning $100,000 to $150,000
Management Occupations	*4.0%*
Business and Financial Operations Occupations	*3.8%*
Community and Social Service Occupations	*2.2%*
Education, Training, and Library Occupations	*4.0%*
Healthcare Practitioners and Technical Occupations	*7.9%*
Healthcare Support Occupations	*4.7%*
Food Preparation and Serving Related Occupations	*15.7%*
Building and Grounds Cleaning and Maintenance Occupations	*5.2%*
Personal Care and Service Occupations	*7.1%*
Sales and Related Occupations	*12.9%*
Office and Administrative Support Occupations	*14.8%*
Installation, Maintenance, and Repair Occupations	*3.4%*
Transportation and Material Moving Occupations	*4.3%*
All Other Worker Occupations - Services to Households Earning $100,000 to $150,000	*10.1%*
INDUSTRY TOTAL	100.0%

[1] 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.

Source: Bureau of Labor Statistics, IMPLAN
Keyser Marston Associates, Inc.
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RESIDENTIAL NEXUS APPENDIX B TABLE 2
AVERAGE ANNUAL WORKER COMPENSATION, 2015
SERVICES TO HOUSEHOLDS EARNING $100,000 TO $150,000
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

Occupation [3]	2015 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total No. of Service Workers
Page 1 of 4			
Management Occupations			
Chief Executives	$232,600	3.2%	0.1%
General and Operations Managers	$157,600	34.7%	1.4%
Sales Managers	$167,900	4.6%	0.2%
Administrative Services Managers	$122,400	4.1%	0.2%
Financial Managers	$168,700	9.3%	0.4%
Food Service Managers	$57,200	6.1%	0.2%
Medical and Health Services Managers	$159,700	7.1%	0.3%
Property, Real Estate, and Community Association Managers	$74,600	9.5%	0.4%
Social and Community Service Managers	$79,300	4.3%	0.2%
All other Management Occupations (Avg. All Categories)	$139,700	17.1%	0.7%
Weighted Mean Annual Wage	***$139,700***	**100.0%**	**4.0%**
Business and Financial Operations Occupations			
Human Resources Specialists	$89,400	5.1%	0.2%
Management Analysts	$111,500	5.2%	0.2%
Training and Development Specialists	$95,300	3.9%	0.2%
Market Research Analysts and Marketing Specialists	$110,200	6.7%	0.3%
Business Operations Specialists, All Other	$98,100	10.6%	0.4%
Accountants and Auditors	$94,200	22.2%	0.9%
Financial Analysts	$109,600	10.5%	0.4%
Personal Financial Advisors	$104,400	14.3%	0.5%
Loan Officers	$89,100	5.3%	0.2%
All Other Business and Financial Operations Occupations (Avg. All Categ	$100,200	16.3%	0.6%
Weighted Mean Annual Wage	***$100,200***	**100.0%**	**3.8%**
Community and Social Service Occupations			
Substance Abuse and Behavioral Disorder Counselors	$38,300	4.8%	0.1%
Educational, Guidance, School, and Vocational Counselors	$69,900	6.1%	0.1%
Mental Health Counselors	$59,300	8.1%	0.2%
Rehabilitation Counselors	$44,200	5.9%	0.1%
Child, Family, and School Social Workers	$52,000	14.1%	0.3%
Healthcare Social Workers	$77,300	7.7%	0.2%
Mental Health and Substance Abuse Social Workers	$52,400	6.3%	0.1%
Social and Human Service Assistants	$42,100	23.5%	0.5%
Community and Social Service Specialists, All Other	$48,600	4.4%	0.1%
Clergy	$56,300	4.5%	0.1%
All Other Community and Social Service Occupations (Avg. All Categories	$52,300	14.6%	0.3%
Weighted Mean Annual Wage	***$52,300***	**100.0%**	**2.2%**

Sources: U.S. Bureau of Labor Statistics, California Employment Development Department, IMPLAN
Keyser Marston Associates, Inc.
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RESIDENTIAL NEXUS APPENDIX B TABLE 2
AVERAGE ANNUAL WORKER COMPENSATION, 2015
SERVICES TO HOUSEHOLDS EARNING $100,000 TO $150,000
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

Occupation [3]	2015 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total No. of Service Workers
Page 2 of 4			
Education, Training, and Library Occupations			
Vocational Education Teachers, Postsecondary	$56,500	4.8%	0.2%
Preschool Teachers, Except Special Education	$37,700	13.9%	0.6%
Elementary School Teachers, Except Special Education	$72,500	5.9%	0.2%
Secondary School Teachers, Except Special and Career/Technical Educa	$76,100	4.1%	0.2%
Self-Enrichment Education Teachers	$47,700	10.7%	0.4%
Teachers and Instructors, All Other, Except Substitute Teachers	$55,900	7.6%	0.3%
Substitute Teachers	$40,700	3.1%	0.1%
Teacher Assistants	$32,700	13.9%	0.6%
All Other Education, Training, and Library Occupations (Avg. All Categorie	$47,600	35.9%	1.4%
Weighted Mean Annual Wage	***$47,600***	**100.0%**	**4.0%**
Healthcare Practitioners and Technical Occupations			
Pharmacists	$141,300	4.0%	0.3%
Physicians and Surgeons, All Other	$153,300	3.9%	0.3%
Physical Therapists	$103,000	3.5%	0.3%
Registered Nurses	$123,500	30.9%	2.5%
Dental Hygienists	$96,500	3.8%	0.3%
Pharmacy Technicians	$45,900	5.4%	0.4%
Licensed Practical and Licensed Vocational Nurses	$60,400	8.3%	0.7%
All Other Healthcare Practitioners and Technical Occupations (Avg. All Ca	$108,000	40.2%	3.2%
Weighted Mean Annual Wage	***$108,000***	**100.0%**	**7.9%**
Healthcare Support Occupations			
Home Health Aides	$27,400	22.2%	1.0%
Nursing Assistants	$35,100	30.0%	1.4%
Massage Therapists	$44,200	4.9%	0.2%
Dental Assistants	$44,100	9.9%	0.5%
Medical Assistants	$44,100	15.8%	0.7%
All Other Healthcare Support Occupations (Avg. All Categories)	$36,400	17.2%	0.8%
Weighted Mean Annual Wage	***$36,400***	**100.0%**	**4.7%**
Food Preparation and Serving Related Occupations			
First-Line Supervisors of Food Preparation and Serving Workers	$36,900	6.9%	1.1%
Cooks, Fast Food	$21,300	4.2%	0.7%
Cooks, Restaurant	$27,500	8.7%	1.4%
Food Preparation Workers	$24,400	6.8%	1.1%
Bartenders	$26,300	6.9%	1.1%
Combined Food Preparation and Serving Workers, Including Fast Food	$23,000	25.0%	3.9%
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	$23,100	3.6%	0.6%
Waiters and Waitresses	$25,500	19.8%	3.1%
Dining Room and Cafeteria Attendants and Bartender Helpers	$21,300	3.1%	0.5%
Dishwashers	$20,300	4.0%	0.6%
All Other Food Preparation and Serving Related Occupations (Avg. All Ca	$25,200	11.0%	1.7%
Weighted Mean Annual Wage	***$25,200***	**100.0%**	**15.7%**

Sources: U.S. Bureau of Labor Statistics, California Employment Development Department, IMPLAN
Keyser Marston Associates, Inc.
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RESIDENTIAL NEXUS APPENDIX B TABLE 2
AVERAGE ANNUAL WORKER COMPENSATION, 2015
SERVICES TO HOUSEHOLDS EARNING $100,000 TO $150,000
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

Occupation [3]	2015 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total No. of Service Workers
Page 3 of 4			
Building and Grounds Cleaning and Maintenance Occupations			
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeepin	$53,600	3.5%	0.2%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	$29,000	45.5%	2.4%
Maids and Housekeeping Cleaners	$31,100	11.9%	0.6%
Landscaping and Groundskeeping Workers	$33,400	30.4%	1.6%
All Other Building and Grounds Cleaning and Maintenance Occupations (A	$31,700	8.8%	0.5%
Weighted Mean Annual Wage	***$31,700***	**100.0%**	**5.2%**
Personal Care and Service Occupations			
First-Line Supervisors of Personal Service Workers	$42,800	3.7%	0.3%
Nonfarm Animal Caretakers	$32,400	5.7%	0.4%
Hairdressers, Hairstylists, and Cosmetologists	$24,600	17.6%	1.2%
Manicurists and Pedicurists	$21,900	4.3%	0.3%
Childcare Workers	$30,300	12.0%	0.8%
Personal Care Aides	$26,300	32.7%	2.3%
Fitness Trainers and Aerobics Instructors	$44,200	5.4%	0.4%
Recreation Workers	$31,100	4.4%	0.3%
All Other Personal Care and Service Occupations (Avg. All Categories)	$28,800	14.2%	1.0%
Weighted Mean Annual Wage	***$28,800***	**100.0%**	**7.1%**
Sales and Related Occupations			
First-Line Supervisors of Retail Sales Workers	$51,400	9.3%	1.2%
Cashiers	$26,600	27.2%	3.5%
Counter and Rental Clerks	$35,600	4.5%	0.6%
Retail Salespersons	$29,200	35.9%	4.6%
Securities, Commodities, and Financial Services Sales Agents	$91,800	4.0%	0.5%
Sales Representatives, Services, All Other	$89,500	4.2%	0.5%
Sales Representatives, Wholesale and Manufacturing, Except Technical a	$77,000	3.9%	0.5%
Real Estate Sales Agents	$64,600	2.8%	0.4%
All Other Sales and Related Occupations (Avg. All Categories)	$39,600	8.2%	1.1%
Weighted Mean Annual Wage	***$39,600***	**100.0%**	**12.9%**
Office and Administrative Support Occupations			
First-Line Supervisors of Office and Administrative Support Workers	$70,600	6.7%	1.0%
Bookkeeping, Accounting, and Auditing Clerks	$50,300	7.7%	1.1%
Customer Service Representatives	$48,200	9.4%	1.4%
Receptionists and Information Clerks	$36,600	8.8%	1.3%
Stock Clerks and Order Fillers	$31,300	10.6%	1.6%
Executive Secretaries and Executive Administrative Assistants	$67,200	3.4%	0.5%
Medical Secretaries	$48,100	4.4%	0.7%
Secretaries and Administrative Assistants, Except Legal, Medical, and Exe	$45,000	11.5%	1.7%
Office Clerks, General	$40,900	14.2%	2.1%
All Other Office and Administrative Support Occupations (Avg. All Categor	$45,700	23.3%	3.4%
Weighted Mean Annual Wage	***$45,700***	**100.0%**	**14.8%**

Sources: U.S. Bureau of Labor Statistics, California Employment Development Department, IMPLAN
Keyser Marston Associates, Inc.
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RESIDENTIAL NEXUS APPENDIX B TABLE 2
AVERAGE ANNUAL WORKER COMPENSATION, 2015
SERVICES TO HOUSEHOLDS EARNING $100,000 TO $150,000
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

Occupation [3]	2015 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total No. of Service Workers
Page 4 of 4			
Installation, Maintenance, and Repair Occupations			
First-Line Supervisors of Mechanics, Installers, and Repairers	$80,600	7.8%	0.3%
Telecommunications Equipment Installers and Repairers, Except Line Inst	$65,800	3.3%	0.1%
Automotive Body and Related Repairers	$46,400	7.0%	0.2%
Automotive Service Technicians and Mechanics	$52,700	21.1%	0.7%
Maintenance and Repair Workers, General	$47,300	33.5%	1.1%
All Other Installation, Maintenance, and Repair Occupations (Avg. All Cate	$53,200	27.3%	0.9%
Weighted Mean Annual Wage	***$53,200***	**100.0%**	**3.4%**
Transportation and Material Moving Occupations			
Bus Drivers, School or Special Client	$38,000	5.5%	0.2%
Driver/Sales Workers	$34,400	7.8%	0.3%
Heavy and Tractor-Trailer Truck Drivers	$47,200	11.7%	0.5%
Light Truck or Delivery Services Drivers	$39,300	10.6%	0.5%
Taxi Drivers and Chauffeurs	$29,300	3.6%	0.2%
Parking Lot Attendants	$21,500	9.3%	0.4%
Automotive and Watercraft Service Attendants	$25,700	3.0%	0.1%
Cleaners of Vehicles and Equipment	$25,800	8.6%	0.4%
Laborers and Freight, Stock, and Material Movers, Hand	$31,700	19.9%	0.9%
Packers and Packagers, Hand	$25,300	6.9%	0.3%
All Other Transportation and Material Moving Occupations (Avg. All Categ	$32,900	13.3%	0.6%
Weighted Mean Annual Wage	***$32,900***	**100.0%**	**4.3%**
			89.9%

[1] The methodology utilized by the California Employment Development Department (EDD) assumes that hourly paid employees are employed full-time. Annual compensation is calculated by EDD by multiplying hourly wages by 40 hours per work week by 52 weeks.

[2] Occupation percentages are based on the 2014 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on the 2014 Occupational Employment Survey data applicable to Santa Clara County updated by the California Employment Development Department to 2015 wage levels.

[3] Including occupations representing 3% or more of the major occupation group

Sources: U.S. Bureau of Labor Statistics, California Employment Development Department, IMPLAN
Keyser Marston Associates, Inc.
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RESIDENTIAL NEXUS APPENDIX B TABLE 3
WORKER OCCUPATION DISTRIBUTION, 2014
SERVICES TO HOUSEHOLDS EARNING $150K+, RESIDENT SERVICES
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

Major Occupations (2% or more)	Worker Occupation Distribution[1] Services to Households Earning $150,000 and up
Management Occupations	*4.1%*
Business and Financial Operations Occupations	*4.0%*
Community and Social Service Occupations	*2.2%*
Education, Training, and Library Occupations	*5.6%*
Healthcare Practitioners and Technical Occupations	*7.0%*
Healthcare Support Occupations	*4.1%*
Food Preparation and Serving Related Occupations	*14.7%*
Building and Grounds Cleaning and Maintenance Occupations	*5.3%*
Personal Care and Service Occupations	*7.2%*
Sales and Related Occupations	*13.0%*
Office and Administrative Support Occupations	*14.7%*
Installation, Maintenance, and Repair Occupations	*3.3%*
Transportation and Material Moving Occupations	*4.5%*
All Other Worker Occupations - Services to Households Earning $150,000 and up	*10.3%*
INDUSTRY TOTAL	100.0%

[1] 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.

Source: Bureau of Labor Statistics, IMPLAN
Keyser Marston Associates, Inc.
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RESIDENTIAL NEXUS APPENDIX B TABLE 4
AVERAGE ANNUAL WORKER COMPENSATION, 2015
SERVICES TO HOUSEHOLDS EARNING $150,000 AND UP
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

Occupation [3]	2015 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total No. of Service Workers
Page 1 of 4			
Management Occupations			
Chief Executives	$232,600	3.3%	0.1%
General and Operations Managers	$157,600	34.7%	1.4%
Sales Managers	$167,900	4.5%	0.2%
Administrative Services Managers	$122,400	4.2%	0.2%
Financial Managers	$168,700	9.2%	0.4%
Food Service Managers	$57,200	5.6%	0.2%
Medical and Health Services Managers	$159,700	6.0%	0.2%
Property, Real Estate, and Community Association Managers	$74,600	8.5%	0.3%
Social and Community Service Managers	$79,300	4.3%	0.2%
All other Management Occupations (Avg. All Categories)	$140,800	19.7%	0.8%
Weighted Mean Annual Wage	***$140,800***	**100.0%**	**4.1%**
Business and Financial Operations Occupations			
Human Resources Specialists	$89,400	5.0%	0.2%
Management Analysts	$111,500	5.2%	0.2%
Training and Development Specialists	$95,300	4.3%	0.2%
Market Research Analysts and Marketing Specialists	$110,200	6.6%	0.3%
Business Operations Specialists, All Other	$98,100	10.9%	0.4%
Accountants and Auditors	$94,200	21.8%	0.9%
Financial Analysts	$109,600	10.4%	0.4%
Personal Financial Advisors	$104,400	14.2%	0.6%
Loan Officers	$89,100	5.2%	0.2%
All Other Business and Financial Operations Occupations (Avg. All Categories)	$100,200	16.4%	0.6%
Weighted Mean Annual Wage	***$100,200***	**100.0%**	**4.0%**
Community and Social Service Occupations			
Substance Abuse and Behavioral Disorder Counselors	$38,300	4.4%	0.1%
Educational, Guidance, School, and Vocational Counselors	$69,900	8.0%	0.2%
Mental Health Counselors	$59,300	7.6%	0.2%
Rehabilitation Counselors	$44,200	5.8%	0.1%
Child, Family, and School Social Workers	$52,000	14.6%	0.3%
Healthcare Social Workers	$77,300	7.0%	0.2%
Mental Health and Substance Abuse Social Workers	$52,400	5.8%	0.1%
Social and Human Service Assistants	$42,100	23.5%	0.5%
Community and Social Service Specialists, All Other	$48,600	4.5%	0.1%
Clergy	$56,300	4.5%	0.1%
All Other Community and Social Service Occupations (Avg. All Categories)	$52,500	14.5%	0.3%
Weighted Mean Annual Wage	***$52,500***	**100.0%**	**2.2%**

Sources: U.S. Bureau of Labor Statistics, California Employment Development Department, IMPLAN
Keyser Marston Associates, Inc.
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RESIDENTIAL NEXUS APPENDIX B TABLE 4
AVERAGE ANNUAL WORKER COMPENSATION, 2015
SERVICES TO HOUSEHOLDS EARNING $150,000 AND UP
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

Occupation [3]	2015 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total No. of Service Workers
Page 2 of 4			
Education, Training, and Library Occupations			
Vocational Education Teachers, Postsecondary	$56,500	5.0%	0.3%
Preschool Teachers, Except Special Education	$37,700	13.3%	0.7%
Elementary School Teachers, Except Special Education	$72,500	5.7%	0.3%
Secondary School Teachers, Except Special and Career/Technical Education	$76,100	4.0%	0.2%
Self-Enrichment Education Teachers	$47,700	10.5%	0.6%
Teachers and Instructors, All Other, Except Substitute Teachers	$55,900	7.7%	0.4%
Substitute Teachers	$40,700	3.0%	0.2%
Teacher Assistants	$32,700	13.3%	0.7%
All Other Education, Training, and Library Occupations (Avg. All Categories)	$47,800	37.5%	2.1%
Weighted Mean Annual Wage	***$47,800***	**100.0%**	**5.6%**
Healthcare Practitioners and Technical Occupations			
Pharmacists	$141,300	4.5%	0.3%
Physicians and Surgeons, All Other	$153,300	3.8%	0.3%
Physical Therapists	$103,000	3.4%	0.2%
Registered Nurses	$123,500	30.2%	2.1%
Dental Hygienists	$96,500	3.6%	0.3%
Pharmacy Technicians	$45,900	6.1%	0.4%
Licensed Practical and Licensed Vocational Nurses	$60,400	8.1%	0.6%
All Other Healthcare Practitioners and Technical Occupations (Avg. All Categories)	$107,500	40.3%	2.8%
Weighted Mean Annual Wage	***$107,500***	**100.0%**	**7.0%**
Healthcare Support Occupations			
Home Health Aides	$27,400	23.5%	1.0%
Nursing Assistants	$35,100	29.3%	1.2%
Massage Therapists	$44,200	4.9%	0.2%
Dental Assistants	$44,100	9.6%	0.4%
Medical Assistants	$44,100	15.2%	0.6%
All Other Healthcare Support Occupations (Avg. All Categories)	$36,200	17.5%	0.7%
Weighted Mean Annual Wage	***$36,200***	**100.0%**	**4.1%**
Food Preparation and Serving Related Occupations			
First-Line Supervisors of Food Preparation and Serving Workers	$36,900	6.9%	1.0%
Cooks, Fast Food	$21,300	4.1%	0.6%
Cooks, Restaurant	$27,500	8.6%	1.3%
Food Preparation Workers	$24,400	6.9%	1.0%
Bartenders	$26,300	7.0%	1.0%
Combined Food Preparation and Serving Workers, Including Fast Food	$23,000	25.0%	3.7%
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	$23,100	3.7%	0.5%
Waiters and Waitresses	$25,500	19.6%	2.9%
Dining Room and Cafeteria Attendants and Bartender Helpers	$21,300	3.2%	0.5%
Dishwashers	$20,300	4.0%	0.6%
All Other Food Preparation and Serving Related Occupations (Avg. All Categories)	$25,200	11.1%	1.6%
Weighted Mean Annual Wage	***$25,200***	**100.0%**	**14.7%**

Sources: U.S. Bureau of Labor Statistics, California Employment Development Department, IMPLAN
Keyser Marston Associates, Inc.
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RESIDENTIAL NEXUS APPENDIX B TABLE 4
AVERAGE ANNUAL WORKER COMPENSATION, 2015
SERVICES TO HOUSEHOLDS EARNING $150,000 AND UP
RESIDENTIAL NEXUS ANALYSIS
CAMPBELL, CA

Occupation [3]	2015 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total No. of Service Workers
Page 3 of 4			
Building and Grounds Cleaning and Maintenance Occupations			
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	$53,600	3.5%	0.2%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	$29,000	46.1%	2.4%
Maids and Housekeeping Cleaners	$31,100	11.0%	0.6%
Landscaping and Groundskeeping Workers	$33,400	30.5%	1.6%
All Other Building and Grounds Cleaning and Maintenance Occupations (Avg. All Categ	$31,700	8.9%	0.5%
Weighted Mean Annual Wage	***$31,700***	**100.0%**	**5.3%**
Personal Care and Service Occupations			
First-Line Supervisors of Personal Service Workers	$42,800	3.7%	0.3%
Nonfarm Animal Caretakers	$32,400	6.0%	0.4%
Hairdressers, Hairstylists, and Cosmetologists	$24,600	15.3%	1.1%
Manicurists and Pedicurists	$21,900	3.7%	0.3%
Childcare Workers	$30,300	15.2%	1.1%
Personal Care Aides	$26,300	31.5%	2.3%
Fitness Trainers and Aerobics Instructors	$44,200	5.8%	0.4%
Recreation Workers	$31,100	4.4%	0.3%
All Other Personal Care and Service Occupations (Avg. All Categories)	$29,100	14.4%	1.0%
Weighted Mean Annual Wage	***$29,100***	**100.0%**	**7.2%**
Sales and Related Occupations			
First-Line Supervisors of Retail Sales Workers	$51,400	9.4%	1.2%
Cashiers	$26,600	27.2%	3.5%
Counter and Rental Clerks	$35,600	4.2%	0.5%
Retail Salespersons	$29,200	36.2%	4.7%
Securities, Commodities, and Financial Services Sales Agents	$91,800	4.1%	0.5%
Sales Representatives, Services, All Other	$89,500	4.2%	0.5%
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific	$77,000	3.9%	0.5%
Real Estate Sales Agents	$64,600	2.5%	0.3%
All Other Sales and Related Occupations (Avg. All Categories)	$39,600	8.2%	1.1%
Weighted Mean Annual Wage	***$39,600***	**100.0%**	**13.0%**
Office and Administrative Support Occupations			
First-Line Supervisors of Office and Administrative Support Workers	$70,600	6.6%	1.0%
Bookkeeping, Accounting, and Auditing Clerks	$50,300	7.8%	1.1%
Customer Service Representatives	$48,200	9.5%	1.4%
Receptionists and Information Clerks	$36,600	8.3%	1.2%
Stock Clerks and Order Fillers	$31,300	10.8%	1.6%
Executive Secretaries and Executive Administrative Assistants	$67,200	3.6%	0.5%
Medical Secretaries	$48,100	3.8%	0.6%
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	$45,000	11.9%	1.7%
Office Clerks, General	$40,900	14.5%	2.1%
All Other Office and Administrative Support Occupations (Avg. All Categories)	$45,700	23.3%	3.4%
Weighted Mean Annual Wage	***$45,700***	**100.0%**	**14.7%**

Sources: U.S. Bureau of Labor Statistics, California Employment Development Department, IMPLAN
Keyser Marston Associates, Inc.
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Occupation [3]	2015 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total No. of Service Workers
Page 4 of 4			
Installation, Maintenance, and Repair Occupations			
First-Line Supervisors of Mechanics, Installers, and Repairers	$80,600	7.8%	0.3%
Telecommunications Equipment Installers and Repairers, Except Line Installers	$65,800	2.8%	0.1%
Automotive Body and Related Repairers	$46,400	6.8%	0.2%
Automotive Service Technicians and Mechanics	$52,700	20.9%	0.7%
Maintenance and Repair Workers, General	$47,300	33.2%	1.1%
All Other Installation, Maintenance, and Repair Occupations (Avg. All Categories)	$53,100	28.5%	0.9%
Weighted Mean Annual Wage	***$53,100***	**100.0%**	**3.3%**
Transportation and Material Moving Occupations			
Bus Drivers, School or Special Client	$38,000	6.6%	0.3%
Driver/Sales Workers	$34,400	7.3%	0.3%
Heavy and Tractor-Trailer Truck Drivers	$47,200	11.7%	0.5%
Light Truck or Delivery Services Drivers	$39,300	10.4%	0.5%
Taxi Drivers and Chauffeurs	$29,300	3.8%	0.2%
Parking Lot Attendants	$21,500	9.6%	0.4%
Automotive and Watercraft Service Attendants	$25,700	2.7%	0.1%
Cleaners of Vehicles and Equipment	$25,800	8.0%	0.4%
Laborers and Freight, Stock, and Material Movers, Hand	$31,700	19.5%	0.9%
Packers and Packagers, Hand	$25,300	6.8%	0.3%
All Other Transportation and Material Moving Occupations (Avg. All Categories)	$33,000	13.5%	0.6%
Weighted Mean Annual Wage	***$33,000***	**100.0%**	**4.5%**
			89.7%

[1] The methodology utilized by the California Employment Development Department (EDD) assumes that hourly paid employees are employed full-time. Annual compensation is calculated by EDD by multiplying hourly wages by 40 hours per work week by 52 weeks.

[2] Occupation percentages are based on the 2014 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on the 2014 Occupational Employment Survey data applicable to Santa Clara County updated by the California Employment Development Department to 2015 wage levels.

[3] Including occupations representing 3% or more of the major occupation group

Sources: U.S. Bureau of Labor Statistics, California Employment Development Department, IMPLAN
Keyser Marston Associates, Inc.
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KEYSER MARSTON ASSOCIATES

ATTACHMENT B

NON-RESIDENTIAL NEXUS ANALYSIS

Prepared for
City of Campbell

Prepared by:
Keyser Marston Associates, Inc.

August 2016

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I. INTRODUCTION

The following report is a Jobs Housing Nexus Analysis, an analysis of the linkages between non-residential development and the need for additional affordable housing in the City of Campbell. This Jobs Housing Nexus Analysis has been prepared in support of affordable housing impact fees that may be levied on non-residential development. The report has been prepared by Keyser Marston Associates, Inc. (KMA) for the City of Campbell, pursuant to contracts both parties have with the Silicon Valley Community Foundation.

The analysis was prepared as part of a coordinated work program for twelve jurisdictions in Santa Clara and Alameda Counties. Silicon Valley Community Foundation with Baird + Driskell Community Planners organized and facilitated this multi-jurisdiction effort. Silicon Valley Community Foundation, which engaged KMA to prepare the analyses, serves as the main contracting entity with each participating jurisdiction, and has provided funding support for coordination and administration of the effort. Analyses in support of affordable housing impact fees on residential development were also prepared as part of the multi-jurisdiction work program.

A major affordable housing program in the City of Campbell is the inclusionary program, adopted by an ordinance in 2006 and incorporated in Code Section 21.24. The inclusionary program requires that in projects of ten or more units, 15% of all units be made affordable to households at low and moderate income. An in lieu fee alternative of $34.50 per square is available to projects at a density of six units per acre or less. The nexus analysis summarized in this report will enable the City of Campbell to adopt an affordable housing impact fee on non-residential projects to expand resources for the production of affordable housing.

Purpose

The purpose of a Jobs-Housing Nexus Analysis is to quantify and document the impact of the development of new workplace buildings (commercial and industrial) and the employees that work in them, on the demand for affordable housing. Because jobs in all buildings cover a range of compensation levels, there are housing needs at all affordability levels. This analysis quantifies the need for lower and moderate income housing created by each type of workplace building.

The analysis may be used as the foundation for enacting an affordable housing impact fee or “commercial linkage fee” to be levied on non-residential development in the City of Campbell. The conclusions of the analysis represent maximum supportable or legally defensible impact fee levels based on the impact of new non-residential development on the need for affordable housing. Findings are not recommended fee levels. The City is free to take a range of policy considerations into account in setting fees anywhere below the maximums identified in this report.

The relationships established in this analysis may also be useful for other applications such as negotiation of an affordable housing component as part of a development agreement for a large commercial project.

Analysis Scope

This analysis examines six types of workplace buildings, per direction of City staff.

- Office, which includes traditional office users such as law firms, accountants, real estate and insurance agencies, as well as high tech, research & development (R&D), and medical office space.
- High Tech Office, which refers to office space primarily occupied by tech related industries, with higher density of employment within the space and a differing occupational profile from the general office building type above.
- Hotel, which covers the range from full service hotels to minimum service extended stay lodging.
- Retail, which includes all types of retail, restaurants, and personal services.
- Light Industrial, which includes light manufacturing and maintenance and repair industries, such as auto service and body repair businesses. This category also includes research & development, to reflect the fact that some R&D occurs in light industrial-type buildings instead of in office buildings.
- Warehouse, or large structures primarily devoted to storage, typically with a small amount of office space.

High Tech Office is analyzed as a separate category to demonstrate the nexus based on the distinct occupational profile and employment density for high-tech. However, for practical reasons, most programs do not normally have separate fee levels for high tech. For example, over its lifetime, office space may be used by both high-tech and non-high-tech users and tenancies for office buildings built on a spec basis are not known at building permit issuance.

Retail and restaurants are analyzed in the nexus as one building type category given multi-tenant buildings may include both and tenancies can shift over time between restaurant and retail. However, it is possible to implement separate fee levels for retail and restaurants, if desired, particularly if these uses are being distinguished for other purposes such as parking or traffic impact fees.

The non-residential nexus does not specifically address housing needs of teachers, governmental employees etc., although housing needs of these workers are often of specific interest. This is because these workers are usually employed within governmental buildings exempt from fees. The Residential Nexus Analysis (Attachment A), on the other hand, addresses housing needs for a whole range of workers who provide services to residents such as teachers and workers in the non-profit sector.

The household income categories addressed in the analysis are:

- Extremely Low Income: households earning up to 30% Area Median Income (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; and,
- Moderate Income: households earning over 80% AMI up to 120% of AMI.

Report Organization

The report is organized into four sections and two appendices, as follows:

- Section I provides an introduction and describes the purpose and organization of this report.

- Section II presents a summary of the nexus concept and some of the key issues and underlying assumptions in the analyses linking jobs and housing demand.

- Section III presents an analysis of the jobs and housing relationships associated with each workplace building type and concludes with a quantification of the number of households at each income level associated with each building type.

- Section IV contains a summary of the costs of delivering housing units affordable to households at the income levels under study, allocated to each square foot of building area, and provides the conclusions regarding maximum supported fee levels.

- Appendix A provides a discussion of various specific factors and assumptions in relation to the nexus concept to supplement the overview provided in Section II.

- Appendix B provides an analysis to address the potential for overlap between jobs counted in the Residential and Non-Residential nexus analyses.

- Appendix C contains support information on worker occupations and incomes and an identification of the industry categories represented within each building type.

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 such as the American Community Survey of the U.S. Census, the 2010 Census, Bureau of Labor Statistics and California Employment Department (EDD) data were used extensively. Other sources and analyses used are noted in the text and footnotes. While we believe all sources utilized are sufficiently accurate for the purposes of the analyses, we cannot guarantee their accuracy. KMA assumes no liability for information from these or other sources.

II. THE NEXUS CONCEPT

This section outlines the nexus concept and some of the key issues surrounding the impact of new non-residential development on the demand for affordable housing units in Campbell. The nexus analysis and discussion focus on the relationships among development, growth, employment, income of workers and demand for affordable housing. The analysis describes the impact of new construction of workplace buildings and the need for additional affordable housing, quantified both in terms of number of units and the justified fee to provide those affordable units.

Background

The first jobs-housing linkage fee programs were adopted by the cities of San Francisco and Boston in the mid-1980s. To support the fees, the City of San Francisco commissioned an early version of a nexus analysis.

In 1987, the California legislature enacted AB 1600, the Mitigation Fee Act, which requires local agencies proposing an impact fee on a development project to identify the purpose and use of the fee, and to determine that there is a reasonable relationship between the fee's use and the development project on which the fee is imposed. The local agency must also demonstrate that there is a reasonable relationship between the fee amount and the cost of mitigating the problem that the fee addresses. Studies by local governments designed to fulfill the requirements of AB 1600 are often referred to as "nexus" studies. While commercial linkage fees for affordable housing are not clearly "fees" as defined by the Mitigation Fee Act, the methodology and findings specified by the Act are appropriate for any nexus study.

Commercial linkage fees were upheld in a 1991 ruling in the case *Commercial Builders of Northern California v. City of Sacramento*. Commercial builders in Sacramento sued the City following the City's adoption of a housing linkage fee. Adequacy of the supporting nexus analysis was among the matters at issue in the case. Both the U.S. District Court and the Ninth Circuit Court of Appeals upheld the commercial linkage fees adopted by the City of Sacramento. The Supreme Court of the United States denied the builders' petition to hear the case, allowing the ruling of the Ninth Circuit to stand.

The Nexus Methodology

An overview of the basic nexus concept and methodology is helpful to understand the discussion and concepts presented in this section. The nexus analysis links new commercial buildings with new workers; these workers demand additional housing in proximity to the jobs, a portion of which needs to be affordable to the workers in lower income households.

Below is a description of the major calculations of the analysis. For analysis purposes, buildings of 100,000 square feet are assumed and then the following calculations are made:

- The total number of employees working in the building is estimated based on average employment density data.
- Occupation and income information for typical job types in the building is used to calculate how many of those jobs pay compensation at the various income levels (Extremely Low, Very Low, Low, and Moderate) addressed in the analysis. Compensation data is from the California Employment Development Department (EDD) and is specific to Santa Clara County. Worker occupations by building type are derived from the 2014 Occupational Employment Survey by the U.S. Bureau of Labor Statistics and weighted to reflect the industry mix in Santa Clara County.
- Census data indicate that many workers are members of households where more than one person is employed and that there is a range of household sizes; factors derived from the Census are used to translate the workers in the building into Extremely Low, Very Low, Low, and Moderate-income households of various sizes.
- Then, the Extremely Low, Very Low-, Low- and Moderate-Income households are divided by the building size to arrive at the number of housing units per square foot of building area, for each income category.
- In the last step, the number of households per square foot in each income category is multiplied by the costs of delivering housing units affordable to these income groups.

Discount for Changing Industries

The local economy, like that of the U.S. as a whole, is constantly evolving, with job losses in some sectors and job growth in others. Over the past decade employment in manufacturing sectors of the local economy have declined along with governmental employment, farming, construction and financial activities employment. Jobs lost over the last decade in these declining sectors were replaced by job growth in other industry sectors.

The analysis makes an adjustment to take these declines, changes and shifts within all sectors of the economy into account, recognizing that jobs added are not 100% net new in all cases. A 20% 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. Long term declines in employment experienced in some sectors of the economy mean that some of the new jobs are being filled by workers that have been displaced from another industry and who are presumed to already have housing locally. The analysis makes the assumption that existing workers downsized from declining industries are available to fill a portion of jobs in new workplace buildings built in Campbell.

The 20% downward adjustment used for purposes of the analysis was derived from California Employment Development Department data on employment by industry in the San Jose-Sunnyvale-Santa Clara and Oakland-Hayward-Berkeley Metropolitan Districts, where the jurisdictions included in the multi-jurisdiction nexus effort are located. Over the ten-year period from 2005 to 2015, approximately 55,000 jobs were lost in declining industry sectors. Over the same period, growing and stable industries added a total of 268,000 jobs. The figures are used to establish a ratio between jobs lost in declining industries to jobs gained in growing and stable industries at 20%[1]. The 20% factor is applied as an adjustment in the analysis, effectively assuming one in every five 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. In addition, development of new workspace buildings will typically occur only to the extent there is positive net demand after re-occupancy of buildings vacated by businesses in declining sectors of the economy. To the extent existing buildings are re-occupied, the discount for changing industries is unnecessary because new buildings would represent net new growth in employment. The 20% adjustment is conservative in that it is mainly necessary to cover a special case in which buildings vacated by declining industries cannot be readily occupied by other users due to their special purpose nature or because of obsolescence.

Other Factors and Assumptions

Appendix A provides a discussion of other specific factors in relation to the nexus concept including housing needs of the existing population, multiplier effects (indirect and induced jobs), changes in labor force participation and economic cycles.

[1] The 20% ratio is calculated as 55,000 jobs lost in declining sectors excluding defense divided by 268,000 jobs gained in growing and stable sectors = 20.5% (rounded to 20%).

III. JOBS HOUSING NEXUS ANALYSIS

This section presents a summary of the analysis linking the development of the six types of workplace buildings to the estimated number of lower income housing units required in each of four income categories. This section should not be read or reproduced without the narrative presented in the previous sections.

Analysis Approach and Framework

The analysis establishes the jobs housing nexus for individual commercial land use categories, quantifying the connection between employment growth in Campbell and affordable housing demand.

The analysis examines the employment associated with the development of workplace building prototypes. Then, through a series of steps, the number of employees is converted to households and housing units by income level. The findings are expressed in terms of numbers of households per 100,000 square feet, for ease of presentation. In the final step, we convert the numbers of households for an entire building to the number of households per square foot.

Household Income Limits

The analysis estimates demand for affordable housing in four household income categories: Extremely Low, Very Low, Low and Moderate Income. Household incomes for these affordability categories are published by the California Department of Housing and Community Development (HCD). The income limits are shown below.

2016 Income Limits for Santa Clara County

	Household Size (Persons)					
	1	2	3	4	5	6 +
Extr. Low (Under 30% AMI)	$23,450	$26,800	$30,150	$33,500	$36,200	$38,900
Very Low (30%-50% AMI)	$39,100	$44,650	$50,250	$55,800	$60,300	$64,750
Low (50%-80% AMI)	$59,400	$67,900	$76,400	$84,900	$91,650	$98,450
Moderate (80%-120% AMI)	$89,950	$102,800	$115,650	$128,500	$138,800	$149,050
Median (100% of Median)	$74,950	$85,700	$96,400	$107,100	$115,650	$124,250

Source: California Department of Housing and Community Development.

Analysis Steps

The analysis is conducted using a model 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.

Tables 1 through 4 at the end of this section summarize the nexus analysis steps for the six building types. Following is a description of each step of the analysis:

Step 1 – Estimate of Total New Employees

The first step in Table 1 (page 15) identifies the total number of direct employees who will work in the building type being analyzed. Average employment density factors are used to make the calculation.

The employment density estimates are drawn from several sources, including local information, KMA experience in other jurisdictions, some survey data, and other sources, tailored to the character of development in Campbell and the types of tenancies expected in the commercial buildings in the City.

- *Office* – 300 square feet per employee. This represents an average of a range that includes traditional office uses, high tech activities, research & development (R&D) space, and medical offices. There is some variation within this range, with high tech at the high end and some R&D and medical office at the lower end.
- *High Tech Office* – 200 square feet per employee. This category was established to recognize the higher density of employment in space occupied primarily by the tech sector and also the unique occupational profile in these industries.
- *Retail* – 400 square feet per employee. This reflects a mix of retail and restaurant space and also a whole range of personal services. Restaurant space typically has a higher employment density, while retail space ranges widely depending on the type of retail, with furniture stores, for example, representing the lower end. The density range within this category is wide, with some types of retail as much as five times as dense as other types.
- *Hotel* – 800 square feet per employee. The 800 square feet per employee average covers a range from higher service hotels, which are far more employment intensive, to minimal service extended stay hotels which have very low employment density.
- *Light Industrial* – 400 square feet per employee. This density covers flex space, typically leased to a mix of office, light manufacturing, R&D and storage uses. This designation may also be applied to auto related servicing and other activities of a semi-industrial character.
- *Warehouse* – 2,000 square feet per employee. This reflects that the primary activity in the building is assumed to be storage. A small amount of office or administrative space is assumed within warehouse structures. The warehouse category, for fee purposes, is often defined as structures over a threshold size, such as 50,000 square feet. Also some cities use this category to cover heavy manufacturing when the density of employment is similarly low.

KMA conducted the analysis on 100,000 square foot buildings. This facilitates the presentation of the nexus findings, as it allows jobs and housing units to be presented in whole numbers that can be more readily understood. At the conclusion of the analysis, the findings are divided by building size to express the linkages per square foot, so that the findings can be applied to buildings of any size.

Step 2 – Adjustment for Changing Industries

This step is an adjustment to take into account any declines, changes and shifts within all sectors of the economy and to recognize that new space is not always 100% equivalent to net new employees. A 20% downward adjustment is utilized to recognize long-term employment shifts and the likelihood of continuing changes in the local economy (see Section II discussion).

Step 3 – Adjustment from Employees to Employee Households

This step (Table 1, page 15) converts the number of employees to the number of employee households, recognizing that 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.

The number of workers per household in a given geographic area is a function of household size, labor force participation rate and employment availability, as well as other factors. According to the 2011-2013 ACS, the number of workers per worker household in Santa Clara County was 1.72, including full- and part-time workers. The total number of jobs created is divided by 1.72 to determine the number of new households. This is a conservative estimate because it excludes all non-worker households (such as students and the retired). If the average number of workers in all households was used, it would have produced a greater demand for housing units.

Step 4 – Occupational Distribution of Employees

Estimating the occupational breakdown of employees is the first step to arrive at income levels. The Bureau of Labor Statistics publishes data on the distribution of occupations within industries. The industries included in the analysis vary by building type.

- For office buildings, the mix of industries was customized based on employment by industry sector in Santa Clara County using California Employment Development Department (EDD) data. This category is inclusive of research and development, software development firms and other high tech users, medical and dental offices along with small firms such as realtors, insurance agents, employment services, legal and business services.
- For high tech office, tenants are assumed to be primarily tech related firms within sectors such as software publishing, computer system design, telecommunications, data

processing, hosting, and related services, and other information / telecommunications services. The mix of tech-related industry categories are weighted based on current employment levels within Santa Clara County.

- For retail space, the industries include a mix of retail, restaurant and personal service uses tailored to Santa Clara County based on current employment levels reported by EDD.
- For hotel buildings, the industry includes Hotels, Motels and other accommodations, excluding casino hotels.
- For light industrial buildings, the industries include light manufacturing, research and development, and automotive and other maintenance and repair services. The categories are weighted to reflect the mix of these industries within Santa Clara County.
- For warehouse buildings, the applicable industry category is Warehouse & Storage.

Once the industries are selected, the May 2014 National Industry-Specific Occupational Estimates, published by the Bureau of Labor Statistics (BLS), are used to translate industries to occupations. At the end of this step, the occupational composition of employees in the six types of buildings has been estimated. The occupational compositions that reflect the expected mix of activities in the new buildings are presented in the tables in Appendix C.

- Office employment in Santa Clara County includes a range of computer and mathematical (23%), administrative support (21%), business and financial (11%), and management occupations (9%), among others.
- High tech employment is concentrated in computer and mathematical occupations (55%), followed by office and administrative support (11%) management (10%), and business and financial occupations (9%).
- Retail employment consists of predominantly food preparation and serving occupations (41%) and sales related occupations (32%), with office and administrative support occupations making up an additional 9%.
- Hotels employ workers primarily from three main occupation categories: building and grounds cleaning and maintenance (maid service, etc.), food preparation and serving related, and office and administrative support, which together make up 77% of Hotel workers. Other Hotel occupations include personal care, management, sales, production and maintenance and repair.
- Light industrial occupations consist of scientific occupations (15%), production jobs (15%), maintenance and repair jobs (11%), office and administrative (11%), and others.
- Warehouse workers are largely engaged in transportation and material moving (60%), followed by office and administrative support.

The results of Step #4 are shown on Table 1 on page 15; the table shows both the percentage of total employee households and the number of employee households in the prototype buildings.

Step 5 – Estimated Employee Household Income

In this step, occupations are translated to employee incomes based on recent Santa Clara County wage and salary information from EDD. The wage and salary information summarized in the tables in Appendix C provided the income inputs to the analysis. Worker compensation used in the analysis assumes full time employment (40 hours per week) based on EDD's convention for reporting annual compensation.

In the even numbered Appendix C tables, EDD data provides a distribution of specific occupations within the category. For example, within the Food Preparation and Serving Category, there are Supervisors, Cooks, Bartenders, Waiters and Waitresses, Dishwashers, etc. For each detailed occupational category, the model uses the distribution of wages to calculate the percent of worker households that would fall into each income category. The occupations with the lowest compensation levels are in Retail and Hotel buildings.

The calculation is performed for each possible combination of household size and number of workers in the household. For households with more than one worker, individual *employee* income data was used to calculate the household income by assuming multiple earner households are, on average, formed of individuals with similar incomes. The model recognizes that many, but not all households have multiple incomes.

Step 6 – Distribution of Household Size and Number of Workers

In this step, the model examines the demographics of Santa Clara County in order to identify the percentage of households applicable to each potential combination of household size and number of workers. Percentages are calculated using data from the 2011-2013 American Community Survey. This data enables the analysis to account for the following:

- Households have a range in size and a range in the number of workers;
- Large households generally have more workers than smaller households.

The result of Step 6 is a distribution of Santa Clara County working households by number of workers and household size.

Step 7 – Estimate of Number of Households that Meet Size and Income Criteria

This is the final step to calculate the number of worker households meeting the size and income criteria for the four affordability tiers. The calculation combines the matrix of results from Step 5 on percentage of worker households that would meet the income criteria at each potential

household size/number of workers combination, with Step 6, the percentage of worker households that have each given household size/number of workers combination. The result is the percentage of households that fall into each affordability tier. The percentages are then multiplied by the number of households from Step 3 to arrive at the number of households in each affordability tier.

Table 2-A (page 16) shows the results after completing Steps 5, 6, and 7 for the Extremely Low Income Tier. The methodology is repeated for each of the lower income tiers (Tables 2-B, 2-C, and 2-D beginning on page 17), resulting in a total count of worker households per 100 units. A similar table is not included for the above moderate category (over 120% of AMI) because the focus of the analysis is on quantifying housing needs applicable to the affordable income categories.

Summary by Income Level

Table 3 at the end of this section (page 20) indicates the results of the analysis for each of the six building types, for all of the income categories. The table presents the number of households in each affordability category, the total number up to 120% of median, and the remaining households earning over 120% of median associated with a 100,000 square foot building.

The findings in Table 3 are summarized below:

New Worker Households by Income Level per 100,000 square feet

	Office	High Tech Office	Retail	Hotel	Light Industrial	Warehouse
Extremely Low (0%-30% AMI)	2.6	1.5	36.0	15.1	6.5	3.7
Very Low Income (30%-50% AMI)	12.0	9.1	40.8	19.6	16.7	7.3
Low Income (50%-80% AMI)	22.0	22.0	26.2	13.7	22.1	6.2
Moderate Income (80%-120% AMI)	30.7	42.6	8.5	6.2	23.5	3.9
Subtotal through 120% AMI	**67.3**	**75.3**	**111.5**	**54.6**	**68.8**	**21.2**
Above Moderate (over 120% AMI)	88.0	157.7	5.0	3.6	47.6	2.1
Total	**155.3**	**233.0**	**116.5**	**58.2**	**116.5**	**23.3**

The table below summarizes the percentage of total new worker households that falls into each income category. As indicated, over 90% of Retail / Restaurant, Hotel and Warehouse worker households are below the 120% of median income level. By contrast, in High Tech Office buildings, less than one-third of worker households fall below 120% of median.

Nexus Analysis Result: Affordable Housing Need by Income Tier

	Office	High Tech Office	Retail	Hotel	Light Industrial	Warehouse
Extremely Low (0%-30% AMI)	1.7%	0.7%	30.9%	26.0%	5.6%	15.9%
Very Low Income (30%-50% AMI)	7.7%	3.9%	35.0%	33.6%	14.4%	31.5%
Low Income (50%-80% AMI)	14.2%	9.4%	22.5%	23.5%	19.0%	26.8%
Moderate Income (80%-120% AMI)	19.8%	18.3%	7.3%	10.7%	20.2%	16.7%
Subtotal through 120% AMI	**43.4%**	**32.3%**	**95.7%**	**93.8%**	**59.1%**	**90.9%**
Above Moderate (over 120% AMI)	56.6%	67.7%	4.3%	6.2%	40.9%	9.1%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Summary by Square Foot Building Area

The analysis thus far has used 100,000 square foot buildings. In this step, the conclusions are translated to households per square foot by income level (see Table 4, page 21).

For example, for office buildings, household generation per square foot is as follows:

New Worker Households Per Square Foot of New Office Space	
Extremely Low (0%-30% AMI)	0.00002634
Very Low Income (30%-50% AMI)	0.00012013
Low Income (50%-80% AMI)	0.00022013
Moderate Income (80%-120% AMI)	0.00030683
Total, Less than 120% AMI	0.00067343

This is the summary of the housing nexus analysis, or the linkage from buildings to employees to housing demand, by income level. We believe that it is a conservative approximation that most likely understates the households at each income level generated by these building types.

TABLE 1
NET NEW HOUSEHOLDS AND OCCUPATION DISTRIBUTION BY BUILDING TYPE
JOBS HOUSING NEXUS ANALYSIS
CAMPBELL, CA

Per 100,000 Sq.Ft. of Building Area	Office	High Tech Office	Retail	Hotel	Light Industrial	Warehouse
Step 1 - Estimate of Number of Employees						
Employment Density (SF/Employee)	300	200	400	800	400	2,000
Number of Employees Per 100,000 SF Building Area	333	500	250	125	250	50
Step 2 - Net New Employees after Declining Industries Adjustment (20%)	267	400	200	100	200	40
Step 3 - Adjustment for Number of Households (1.72)	155.3	233.0	116.5	58.2	116.5	23.3
Step 4 - Occupation Distribution[(1)]						
Management Occupations	9.0%	10.1%	2.3%	4.5%	8.8%	3.5%
Business and Financial Operations	11.2%	9.4%	0.5%	1.5%	6.4%	2.0%
Computer and Mathematical	23.4%	54.8%	0.1%	0.1%	7.1%	0.5%
Architecture and Engineering	4.9%	2.5%	0.0%	0.0%	9.5%	0.2%
Life, Physical, and Social Science	2.8%	0.1%	0.0%	0.0%	15.2%	0.0%
Community and Social Services	0.2%	0.0%	0.0%	0.0%	0.3%	0.0%
Legal	1.9%	0.3%	0.0%	0.0%	0.3%	0.0%
Education, Training, and Library	1.1%	0.5%	0.0%	0.0%	0.4%	0.0%
Arts, Design, Entertainment, Sports, and Media	2.7%	2.1%	0.4%	0.3%	1.1%	0.1%
Healthcare Practitioners and Technical	4.2%	0.1%	1.9%	0.0%	1.6%	0.1%
Healthcare Support	2.4%	0.0%	0.3%	0.5%	0.4%	0.0%
Protective Service	0.3%	0.2%	0.3%	1.6%	0.3%	0.7%
Food Preparation and Serving Related	0.2%	0.0%	40.7%	24.7%	0.5%	0.1%
Building and Grounds Cleaning and Maint.	0.9%	0.1%	0.7%	31.9%	0.6%	1.0%
Personal Care and Service	0.3%	0.0%	2.8%	4.0%	0.1%	0.0%
Sales and Related	6.5%	6.7%	31.6%	2.2%	3.3%	1.7%
Office and Administrative Support	20.9%	11.0%	9.3%	20.3%	11.1%	22.3%
Farming, Fishing, and Forestry	0.0%	0.0%	0.0%	0.0%	0.3%	0.1%
Construction and Extraction	0.6%	0.0%	0.1%	0.1%	0.3%	0.1%
Installation, Maintenance, and Repair	2.0%	1.5%	2.3%	5.0%	11.1%	3.2%
Production	2.3%	0.3%	2.1%	2.2%	15.1%	4.0%
Transportation and Material Moving	2.1%	0.2%	4.5%	1.1%	6.2%	60.3%
Totals	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Management Occupations	14.0	23.5	2.7	2.6	10.2	0.8
Business and Financial Operations	17.5	21.9	0.6	0.9	7.5	0.5
Computer and Mathematical	36.4	127.7	0.1	0.0	8.2	0.1
Architecture and Engineering	7.6	5.8	0.0	0.0	11.1	0.1
Life, Physical, and Social Science	4.3	0.3	0.0	0.0	17.7	0.0
Community and Social Services	0.3	0.0	0.0	0.0	0.3	0.0
Legal	2.9	0.6	0.0	0.0	0.3	0.0
Education, Training, and Library	1.7	1.1	0.0	0.0	0.4	0.0
Arts, Design, Entertainment, Sports, and Media	4.3	5.0	0.4	0.1	1.2	0.0
Healthcare Practitioners and Technical	6.5	0.2	2.2	0.0	1.9	0.0
Healthcare Support	3.7	0.0	0.4	0.3	0.5	0.0
Protective Service	0.5	0.6	0.3	0.9	0.4	0.2
Food Preparation and Serving Related	0.4	0.0	47.4	14.4	0.6	0.0
Building and Grounds Cleaning and Maint.	1.3	0.3	0.8	18.6	0.7	0.2
Personal Care and Service	0.5	0.0	3.2	2.3	0.1	0.0
Sales and Related	10.1	15.7	36.8	1.3	3.9	0.4
Office and Administrative Support	32.4	25.6	10.8	11.8	13.0	5.2
Farming, Fishing, and Forestry	0.1	0.0	0.0	0.0	0.3	0.0
Construction and Extraction	0.9	0.1	0.2	0.1	0.4	0.0
Installation, Maintenance, and Repair	3.1	3.5	2.7	2.9	13.0	0.7
Production	3.6	0.6	2.4	1.3	17.6	0.9
Transportation and Material Moving	3.3	0.4	5.2	0.6	7.2	14.1
Totals	**155.3**	**233.0**	**116.5**	**58.2**	**116.5**	**23.3**

Notes:
(1) Appendix C Tables 1 through 12 contain additional information regarding worker occupation categories.

TABLE 2-A
ESTIMATE OF QUALIFYING HOUSEHOLDS - EXTREMELY LOW INCOME
JOBS HOUSING NEXUS ANALYSIS
CAMPBELL, CA

Analysis for Households Earning from 0% to 30% of Median

	Office	High Tech Office	Retail	Hotel	Light Industrial	Warehouse
Per 100,000 Sq.Ft. of Building Area						
Step 5, 6, & 7 - Households Earning from 0% to 30% of Median[(1)]						
Management	0.00	0.00	0.01	0.01	0.00	0.00
Business and Financial Operations	0.00	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical	0.00	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering	0.00	0.00	0.00	0.00	0.00	0.00
Life, Physical and Social Science	0.00	0.00	0.00	0.00	0.02	0.00
Community and Social Services	0.00	0.00	0.00	0.00	0.00	0.00
Legal	0.00	0.00	0.00	0.00	0.00	0.00
Education Training and Library	0.00	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media	0.00	0.03	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical	0.01	0.00	0.00	0.00	0.00	0.00
Healthcare Support	0.00	0.00	0.00	0.00	0.00	0.00
Protective Service	0.00	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related	0.00	0.00	19.15	5.50	0.00	0.00
Building Grounds and Maintenance	0.00	0.00	0.00	4.50	0.00	0.00
Personal Care and Service	0.00	0.00	1.24	0.71	0.00	0.00
Sales and Related	0.41	0.23	10.54	0.19	0.47	0.00
Office and Admin	1.69	1.23	1.53	2.91	0.65	0.69
Farm, Fishing, and Forestry	0.00	0.00	0.00	0.00	0.00	0.00
Construction and Extraction	0.00	0.00	0.00	0.00	0.00	0.00
Installation Maintenance and Repair	0.00	0.00	0.10	0.13	0.30	0.03
Production	0.00	0.00	0.51	0.41	2.65	0.14
Transportation and Material Moving	0.00	0.00	1.32	0.00	2.03	2.68
HH earning up to 30% of Median - major occupations	2.11	1.49	34.40	14.36	6.11	3.53
HH earning from 0% to 30% of Median - all other occupations	0.52	0.05	1.63	0.78	0.40	0.17
Total Households Earning from 0% to 30% of Median	**2.6**	**1.5**	**36.0**	**15.1**	**6.5**	**3.7**

Notes:
(1) Appendix C Tables 1 through 12 contain additional information on worker occupation categories and compensation levels.

TABLE 2-B
ESTIMATE OF QUALIFYING HOUSEHOLDS - VERY LOW INCOME
JOBS HOUSING NEXUS ANALYSIS
CAMPBELL, CA

Analysis for Households Earning 30% to 50% of Median

	Office	High Tech Office	Retail	Hotel	Light Industrial	Warehouse
Per 100,000 Sq.Ft. of Building Area						
Step 5, 6, & 7 - Households Earning from 30% to 50% of Median[(1)]						
Management	0.00	0.00	0.13	0.26	0.00	0.00
Business and Financial Operations	0.15	0.17	0.00	0.00	0.08	0.01
Computer and Mathematical	0.36	1.36	0.00	0.00	0.05	0.00
Architecture and Engineering	0.06	0.03	0.00	0.00	0.07	0.00
Life, Physical and Social Science	0.00	0.00	0.00	0.00	1.24	0.00
Community and Social Services	0.00	0.00	0.00	0.00	0.00	0.00
Legal	0.00	0.00	0.00	0.00	0.00	0.00
Education Training and Library	0.00	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media	0.00	0.31	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical	0.18	0.00	0.00	0.00	0.00	0.00
Healthcare Support	0.00	0.00	0.00	0.00	0.00	0.00
Protective Service	0.00	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related	0.00	0.00	17.90	5.45	0.00	0.00
Building Grounds and Maintenance	0.00	0.00	0.00	6.68	0.00	0.00
Personal Care and Service	0.00	0.00	1.22	0.90	0.00	0.00
Sales and Related	1.13	1.04	13.09	0.27	0.73	0.00
Office and Admin	7.75	5.90	3.37	3.86	2.99	1.60
Farm, Fishing, and Forestry	0.00	0.00	0.00	0.00	0.00	0.00
Construction and Extraction	0.00	0.00	0.00	0.00	0.00	0.00
Installation Maintenance and Repair	0.00	0.00	0.54	0.66	2.46	0.15
Production	0.00	0.00	0.81	0.49	5.53	0.29
Transportation and Material Moving	0.00	0.00	1.87	0.00	2.56	4.95
HH earning from 30%-50% of Median - major occupations	9.62	8.82	38.94	18.57	15.71	7.00
HH earning from 30% to 50% of Median - all other occupations	2.39	0.31	1.84	1.01	1.03	0.34
Total Households Earning from 30% to 50% of Median	**12.0**	**9.1**	**40.8**	**19.6**	**16.7**	**7.3**

Notes:
(1) Appendix C Tables 1 through 12 contain additional information on worker occupation categories and compensation levels.

TABLE 2-C
ESTIMATE OF QUALIFYING HOUSEHOLDS - LOW INCOME
JOBS HOUSING NEXUS ANALYSIS
CAMPBELL, CA

Analysis for Households Earning from 50% to 80% of Median

	Office	High Tech Office	Retail	Hotel	Light Industrial	Warehouse
Per 100,000 Sq.Ft. of Building Area						
Step 5, 6, & 7 - Households Earning from 50% to 80% of Median[(1)]						
Management	0.21	0.35	0.28	0.46	0.14	0.03
Business and Financial Operations	2.06	2.43	0.00	0.00	0.95	0.07
Computer and Mathematical	1.95	7.15	0.00	0.00	0.34	0.00
Architecture and Engineering	0.53	0.21	0.00	0.00	0.58	0.00
Life, Physical and Social Science	0.00	0.00	0.00	0.00	3.17	0.00
Community and Social Services	0.00	0.00	0.00	0.00	0.00	0.00
Legal	0.00	0.00	0.00	0.00	0.00	0.00
Education Training and Library	0.00	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media	0.00	0.79	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical	0.64	0.00	0.00	0.00	0.00	0.00
Healthcare Support	0.00	0.00	0.00	0.00	0.00	0.00
Protective Service	0.00	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related	0.00	0.00	9.03	2.85	0.00	0.00
Building Grounds and Maintenance	0.00	0.00	0.00	4.41	0.00	0.00
Personal Care and Service	0.00	0.00	0.62	0.56	0.00	0.00
Sales and Related	1.89	2.16	9.32	0.26	0.77	0.00
Office and Admin	10.35	8.18	3.01	3.20	4.08	1.50
Farm, Fishing, and Forestry	0.00	0.00	0.00	0.00	0.00	0.00
Construction and Extraction	0.00	0.00	0.00	0.00	0.00	0.00
Installation Maintenance and Repair	0.00	0.00	0.78	0.94	3.83	0.23
Production	0.00	0.00	0.66	0.33	5.14	0.27
Transportation and Material Moving	0.00	0.00	1.31	0.00	1.73	3.85
HH earning from 50% to 80% of Median - major occupations	17.63	21.27	25.01	12.99	20.73	5.94
HH earning from 50% to 80% of Median - all other occupations	4.38	0.74	1.18	0.70	1.36	0.29
Total Households Earning from 50% to 80% of Median	**22.0**	**22.0**	**26.2**	**13.7**	**22.1**	**6.2**

Notes:
(1) Appendix C Tables 1 through 12 contain additional information on worker occupation categories and compensation levels.

TABLE 2-D
ESTIMATE OF QUALIFYING HOUSEHOLDS - MODERATE INCOME
JOBS HOUSING NEXUS ANALYSIS
CAMPBELL, CA

Analysis for Households Earning from 80% to 120% of Median

	Office	High Tech Office	Retail	Hotel	Light Industrial	Warehouse
Per 100,000 Sq.Ft. of Building Area						
Step 5, 6, & 7 - Households Earning from 80% to 120% of Median[(1)]						
Management	1.12	1.64	0.47	0.55	0.81	0.13
Business and Financial Operations	4.11	5.02	0.00	0.00	1.84	0.12
Computer and Mathematical	6.30	22.50	0.00	0.00	1.35	0.00
Architecture and Engineering	1.55	0.87	0.00	0.00	2.10	0.00
Life, Physical and Social Science	0.00	0.00	0.00	0.00	4.74	0.00
Community and Social Services	0.00	0.00	0.00	0.00	0.00	0.00
Legal	0.00	0.00	0.00	0.00	0.00	0.00
Education Training and Library	0.00	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, and Media	0.00	1.36	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical	1.29	0.00	0.00	0.00	0.00	0.00
Healthcare Support	0.00	0.00	0.00	0.00	0.00	0.00
Protective Service	0.00	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related	0.00	0.00	1.18	0.55	0.00	0.00
Building Grounds and Maintenance	0.00	0.00	0.00	2.53	0.00	0.00
Personal Care and Service	0.00	0.00	0.13	0.16	0.00	0.00
Sales and Related	2.43	3.54	2.71	0.22	0.72	0.00
Office and Admin	7.79	6.25	2.02	1.15	3.21	0.99
Farm, Fishing, and Forestry	0.00	0.00	0.00	0.00	0.00	0.00
Construction and Extraction	0.00	0.00	0.00	0.00	0.00	0.00
Installation Maintenance and Repair	0.00	0.00	0.70	0.69	3.53	0.19
Production	0.00	0.00	0.34	0.06	3.08	0.16
Transportation and Material Moving	0.00	0.00	0.59	0.00	0.66	2.12
HH earning from 80% to 120% of Median - major occupations	24.58	41.18	8.13	5.91	22.05	3.71
HH earning from 80% to 120% of Median - all other occupations	6.10	1.43	0.38	0.32	1.45	0.18
Total Households Earning from 80% to 120% of Median	**30.7**	**42.6**	**8.5**	**6.2**	**23.5**	**3.9**

Notes:
(1) Appendix C Tables 1 through 12 contain additional information on worker occupation categories and compensation levels.

TABLE 3
WORKER HOUSEHOLDS BY AFFORDABILITY LEVEL
JOBS HOUSING NEXUS ANALYSIS
CAMPBELL, CA

Per 100,000 Sq.Ft. of Building Area

	Office	High Tech Office	Retail	Hotel	Light Industrial	Warehouse
NUMBER OF HOUSEHOLDS BY INCOME TIER [1]						
Extremely Low (0% - 30% AMI)	2.6	1.5	36.0	15.1	6.5	3.7
Very Low Income (30% - 50% AMI)	12.0	9.1	40.8	19.6	16.7	7.3
Low Income (50% to 80% AMI)	22.0	22.0	26.2	13.7	22.1	6.2
Moderate Income (80% to 120% AMI)	30.7	42.6	8.5	6.2	23.5	3.9
Subtotal - Affordable Categories	**67.3**	**75.3**	**111.5**	**54.6**	**68.8**	**21.2**
Above Moderate Income (> 120% AMI)	88.0	157.7	5.0	3.6	47.6	2.1
Total New Worker Households	**155.3**	**233.0**	**116.5**	**58.2**	**116.5**	**23.3**
PERCENTAGE OF HOUSEHOLDS BY INCOME TIER						
Extremely Low (0% - 30% AMI)	1.7%	0.7%	30.9%	26.0%	5.6%	15.9%
Very Low Income (30% - 50% AMI)	7.7%	3.9%	35.0%	33.6%	14.4%	31.5%
Low Income (50% to 80% AMI)	14.2%	9.4%	22.5%	23.5%	19.0%	26.8%
Moderate Income (80% to 120% AMI)	19.8%	18.3%	7.3%	10.7%	20.2%	16.7%
Subtotal - Affordable Categories	**43.4%**	**32.3%**	**95.7%**	**93.8%**	**59.1%**	**90.9%**
Above Moderate Income (> 120% AMI)	56.6%	67.7%	4.3%	6.2%	40.9%	9.1%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Notes:
(1) Appendix C Tables 1 through 12 for information regarding worker compensation levels.

TABLE 4
HOUSING DEMAND NEXUS FACTORS PER SQ.FT. OF BUILDING AREA
JOBS HOUSING NEXUS ANALYSIS
CAMPBELL, CA

	Number of Housing Units per Square Foot of Building Area[1]					
	Office	**High Tech Office**	**Retail**	**Hotel**	**Light Industrial**	**Warehouse**
Extremely Low (0% - 30% AMI)	0.00002634	0.00001539	0.00036032	0.00015136	0.00006512	0.00003708
Very Low Income (30% - 50% AMI)	0.00012013	0.00009123	0.00040780	0.00019575	0.00016744	0.00007346
Low Income (50% to 80% AMI)	0.00022013	0.00022012	0.00026196	0.00013698	0.00022089	0.00006236
Moderate Income (80% to 120% AMI)	0.00030683	0.00042606	0.00008511	0.00006229	0.00023495	0.00003889
Total	**0.00067343**	**0.00075280**	**0.00111520**	**0.00054638**	**0.00068840**	**0.00021179**

Notes:
[1] Calculated by dividing number of households in Table 3 by 100,000 square feet to convert to households per square foot of building.

IV. TOTAL HOUSING NEXUS COSTS

This section takes the conclusions of the previous section on the number of households in the Extremely Low, Very Low, Low, and Moderate Income categories associated with each building type, and identifies the total cost of assistance required to make housing affordable. This section puts a cost on the units at each income level to produce the "total nexus cost." The concept is that impact fees paid by new non-residential development in Campbell as mitigation for affordable housing impacts are used to finance creation of new affordable units at a variety of income levels to address the impacts.

A key component of the analysis is the size of the gap between what households can afford and the cost of producing new housing in Campbell, known as the 'affordability gap.' Affordability gaps are calculated for each of the four categories of Area Median Income (AMI): Extremely Low (under 30% of median), Very Low (30% to 50%), Low (50% to 80%), and Moderate (80% to 120%). The following summarizes the analysis of mitigation cost which is based on the affordability gap or net cost to deliver units that are affordable to worker households in the lower income tiers.

City Assisted Affordable Unit 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 City practices and policies. The analysis assumes that the City will assist Moderate Income households earning between 80% and 120% of Area Median Income with ownership units. The prototype affordable unit should reflect a modest unit consistent with what the City is likely to assist using impact fee funds and appropriate for housing the average Moderate Income worker household. The affordable units financed with impact fee funds are assumed to be more modest than much of the market rate development activity in the City. The typical moderate income project assumed for Campbell is a two-bedroom unit for a three-person household. An attached condominium unit at approximately 30 units per acre (averaging 1,100 square feet per unit) is assumed.

For Low-, Very Low-, and Extremely Low-Income households, it is assumed that the City will assist in the development of multi-family rental units at a density of between 30 and 35 units per acre (averaging 900 square feet per unit). The analysis uses a two-bedroom affordable rental unit for a three-person household. The maximum allowable residential density in Campbell is currently 27 units per acre; however, the affordable projects assumed for purposes of the affordability gap analysis would be eligible for a State Density Bonus of 35% resulting in an effective maximum allowable density of 36 units per acre (27 units per acre X 1.35 = 36 units per acre with density bonus).

The affordability gap analysis is intended to reflect the types of affordable units likely to be assisted using impact fee revenues and may differ from affordable units being delivered through

the City's inclusionary program. As an example, while the City's inclusionary program currently produces ownership units for Low-Income households, in the use of impact fee revenues, it is assumed the City would follow the more common practice of assisting rental units to address the housing needs of this tier. Additionally, although the Extremely Low Income tier is not currently served by the City's inclusionary program, a share of units produced with impact fees could serve this income group.

Development Costs

KMA prepared an estimate of the total development cost for the two affordable housing prototypes described above (inclusive of land acquisition costs, direct construction costs, indirect costs of development, and financing) based on a review of development pro formas for recent affordable projects, data on recent residential land sale transactions, and other construction data sources such as RS Means. It is estimated that the new affordable for-sale condominium unit would have a total development cost of approximately $584,000 and the new affordable multi-family apartment unit would have a total development cost of approximately $500,000.

Development Costs for Affordable Units

Income Group	Unit Tenure / Type	Development Cost
Under 30% AMI	Rental	$500,000
30% to 50% AMI	Rental	$500,000
50% to 80% AMI	Rental	$500,000
80% to 120% AMI	Ownership	$584,000

Development cost assumptions were designed to be reflective of averages for affordable projects within three of the Santa Clara County jurisdictions participating in this multi-jurisdiction work program – the cities of Campbell, Los Altos, and Saratoga. These three cities are grouped together because average multi-family densities in these areas are assumed to be lower than in the other participating Santa Clara County cities – Santa Clara and Milpitas. The primary development cost variable among Campbell, Los Altos, and Saratoga is the cost of land. Based on recent residential land sale transactions, Campbell will likely represent the lower tier of land costs among these three jurisdictions. To make the affordability gaps broadly applicable, development cost estimates reflect land acquisition costs that are on the lower end of the range. This conservative approach has been utilized in order to avoid overstating costs applicable to lower land cost locations within the jurisdictions.

Development cost estimates were informed by KMA's review of pro forma information for over a dozen local multi-family affordable housing projects. Direct construction costs from these projects were adjusted to account for such factors as time, unit size, housing type, and project density to appropriately reflect the multi-family prototype assumed in the analysis. Other costs, such as land acquisition costs, are more site and area specific than direct construction costs

and therefore the inputs for those costs were derived from other sources. Prevailing wages are assumed because use of impact fee monies to finance construction of the affordable units would trigger a prevailing wage requirement. Tables 5 and 7 (pages 29 and 31) provide further details.

The list below identifies some of the multi-family affordable projects for which KMA had pro forma information. In addition to the following projects, KMA also had access to the pro formas for several other active, pending projects, which are not listed due to their preliminary nature.

- Ashland-Kent, Alameda County
- Downtown Hayward Senior, Hayward
- Hayward Senior II, Hayward
- Laguna Commons, Fremont
- Marea Alta, San Leandro
- Onizuka Crossing, Sunnyvale
- Dublin Veterans Housing, Dublin
- Sequoia Belle Haven, Menlo Park
- South Hayward BART, Hayward
- San Lorenzo Senior, San Lorenzo
- South Second St Studios, San Jose
- Station Center 1 & 2, Union City
- University Ave Senior, East Palo Alto

In identifying recent affordable projects to inform the analysis of affordable unit development costs, the focus was on 100% affordable projects of the type the City would likely assist using impact fee revenues. Since no recent 100% affordable projects were identified in Campbell, cost information is drawn from projects in other local jurisdictions as listed above. Construction costs do not vary to a great degree from jurisdiction to jurisdiction; therefore, the examples used are expected to be representative for Campbell as well. Land costs are an exception for which there is a greater level of variation. As described above, the analysis incorporated local land sales data for the applicable West Valley cities in identifying affordable unit development costs. Affordable units produced through the City's inclusionary program are not used as examples for this analysis because these are units within primarily market rate projects not likely representative of the types of projects to be assisted using impact fees and would not reflect the applicable prevailing wage requirement.

Unit Values

For affordable ownership units, unit values are based on an estimate of the restricted affordable purchase prices for a qualifying Moderate Income household. For a 2-bedroom unit, KMA calculated the affordable sales price for the matching 3-person household at $367,000. Details of the calculation are presented in Table 6 (page 30).

For the Extremely Low, Very Low, and Low-Income rental units, unit values are based upon the funding sources assumed to be available for the project. The funding sources include tax-exempt permanent debt financing supported by the project's operating income / rents, a deferred developer fee, and equity generated by 4% federal low income housing tax credits. The highly competitive 9% federal tax credits are not assumed because of the extremely limited

number of projects that receive an allocation of 9% tax credits in any given year per geographic region. Other affordable housing subsidy sources such as CDBG, HOME, AHP, Section 8, and various Federal and State funding programs 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.

On this basis, KMA estimated the unit value (total permanent funding sources) of the Extremely Low-Income rental units at $205,500, the Very Low-Income units at $281,500, and the Low-income units at $320,500 as shown in the table below. Maximum rents are per the California Tax Credit Allocation Committee (TCAC), consistent with the assumption that Low Income Housing Tax Credits will be used as part of the financing[2]. Details for these calculations are presented in Table 7 (page 31).

Unit Values for Affordable Units

Income Group	Unit Tenure / Type	Household Size	Maximum Monthly Rent / Housing Cost	Unit Values / Sales Price	Basis for Unit Value
Under 30% AMI	Rental	3 persons	$753	$205,500	*Supported*
30% to 50% AMI	Rental	3 persons	$1,256	$281,500	*Debt + Tax*
50% to 80% AMI	Rental	3 persons	$1,507	$320,500	*Credit Equity*
80% to 120% AMI	Ownership	3 persons	$3,093	$367,000	*Supported Home Price*

Affordability Gap

The affordability gap is the difference between the cost of developing the affordable units and the unit value based on the restricted affordable rent or sales price.

The resulting affordability gaps are as follows:

[2] TCAC rents are slightly above those determined per the City's inclusionary ordinance with a difference of approximately $50 per month for a two bedroom Very Low-Income unit. Use of TCAC rents in the analysis is a conservative assumption in that it results in a lower affordability gap and lower resulting nexus findings than the use of rents under the City's inclusionary ordinance.

Affordability Gap Calculation

	Unit Value / Sales Price	Development Cost	Affordability Gap
Affordable Rental Units			
Extremely Low (Under 30% AMI)	$205,500	$500,000	$294,500
Very Low (30% to 50% AMI)	$281,500	$500,000	$218,500
Low (50% to 80% AMI)	$320,500	$500,000	$179,500
Affordable Ownership Units			
Moderate (80% to 120% AMI)	$367,000	$584,000	$217,000

AMI = Area Median Income

Tables 5 through 7 (pages 29 to 31) present the detailed affordability gap calculations. Note that the affordability gaps are the same as those assumed in the residential nexus analysis.

Maximum Fees to Mitigate Impacts

The last step in the nexus analysis calculates the cost of delivering affordable housing to the households created by new non-residential development.

Table 8 (page 32) summarizes the analysis. The demand for affordable units in each income range that is generated per square foot of building area is drawn from Table 4 (page 21) in the previous section. The "Maximum Fee per Square Foot" represents the results of the following calculation:

Affordability Gap (from above)	X	No. affordable units generated per square foot of building area. (from Table 4)	=	Maximum Fee Per Square Foot of Building Area

The maximum impact fees for the six building types in Campbell are as follows:

Maximum Fee Per Square Foot of Building Area

Building Type	Maximum Supported Fee Per Square Foot
Office	$140.10
High Tech Office	$156.40
Retail	$260.70
Hotel	$125.50
Light Industrial	$146.50
Warehouse	$46.60

Note: Nexus findings are not recommended fee levels.
See Table 8 (page 32) for detail.

These totals represent the maximum impact fee that could be charged for new non-residential construction to mitigate its impacts on the need for affordable housing. The totals are not recommended fee levels; they represent only the maximums established by this analysis.

These total nexus or mitigation costs are high due to the low compensation levels of many jobs, coupled with the high cost of developing residential units. Higher employment densities also contribute to higher nexus costs. These factors are especially pronounced with the Retail category, yielding a very high nexus cost.

EDD data for 2015 indicates compensation for Retail workers in Santa Clara County averages approximately $33,000 per year. This means many workers qualify as Very Low Income (four-person households earning $55,800 and below[3]); as shown in Table 3, approximately two-thirds of Retail workers fall in the Extremely Low or Very Low Income categories. Virtually all Retail employee households earn less than 120% of the median income. Hotel workers have similar compensation levels (averaging $36,000 annually); however, since there are fewer employees per square feet of building area, the resulting mitigation costs are much lower on a per square foot basis.

Maximum fee levels for Office ($140 per square foot), High Tech Office ($156 per square foot), and Light Industrial ($146 per square foot) are somewhat similar. This outcome reflects the combination of differing employment density estimates and differing occupational and compensation structures which, in combination, produce similar nexus findings. While high tech has the highest employment density of the three building types, it also has the lowest percentage of workers falling into one of the affordable income categories. Conversely, while light industrial has the lowest employment density, it has the highest percentage of lower income workers of the three building types.

Conservative Assumptions

In establishing the maximum impact fee, many conservative assumptions were employed in the analysis that result in a cost to mitigate affordable housing needs that may be considerably understated. These conservative assumptions include:

- Only direct employees are counted in the analysis. Many indirect employees are also associated with each new workspace. Indirect employees in an office building, for example, include security, delivery personnel, building cleaning and maintenance personnel, and a whole range of others. Hotels do have many of these workers on staff, but hotels also "contract out" a number of services that are not taken into account in the analysis. In addition, there are 'induced' employment effects when the direct employees spend their earnings in the local economy. It would certainly be appropriate to include the affordable housing demand generated by the indirect and induced jobs in this nexus

[3] Income criteria vary by household size.

analysis. For simplicity, however, and because the results using only direct employees are significantly higher than the fee levels that are typically considered for adoption, we limit it to direct employees only.

- A downward adjustment of 20% has been reflected in the analysis to account for declining industries and the potential that displaced workers from declining sectors of the economy will fill a portion of jobs in new workplace buildings. This is a conservative assumption because many displaced workers may exit the workforce entirely by retiring rather than seek a new job in one of the industries serving new residents. In addition, development of new workspace buildings will typically occur only to the extent net new demand exists after space vacated by businesses in declining sectors of the economy has been re-occupied. The 20% adjustment is conservative in that it is mainly necessary to cover a special case scenario in which buildings vacated by declining industries cannot be readily occupied by other users due to their special purpose nature or due to obsolescence.

- Annual incomes for workers reflect full time employment based upon EDD's convention for reporting the compensation information. In fact, many workers work less than full time; therefore, annual compensations used in the analysis are probably overstated, especially for Retail and Hotel, which tend to have a high number of part time employees.

- Affordability gaps are based upon the assumption that 4% Low Income Housing Tax Credit financing will be available. This reduces the affordability gap that needs to be filled if affordable units are to be made available.

In summary, many less conservative assumptions could be made that would justify a much higher maximum linkage fee.

Table 5
Affordability Gap Calculation for Moderate Income
Jobs Housing Nexus Analysis
Campbell, CA

I. Affordable Prototype	
Tenure	For-Sale
Density	30 du/acre
Unit Size	1,100 SF
Bedrooms	2-Bedrooms
Construction Type	Condominiums (Type V)

II. Development Costs	Per Unit
Land Acquisition	$138,000
Directs	$319,000 [1]
Indirects	$111,000
Financing	$16,000
Total Costs	$584,000

III. Affordable Sales Price	Per Unit
Household Size	3 person HH
110% of Median Income [2]	$106,040
Maximum Affordable Sales Price	$367,000 [3]

IV. Affordability Gap	Per Unit
Affordable Sales Price	$367,000
(Less) Development Costs	($584,000)
Affordability Gap - Moderate Income	($217,000)

[1] Construction costs include prevailing wages.

[2] Per California Health and Safety Code Section 50052.5, the affordable sale price for a Moderate Income household is to be based on 110% of AMI, whereas qualifying income can be up to 120% of AMI.

[3] See Table 6 for Moderate Income home price estimate.

Table 6
Estimated Affordable Home Prices - Moderate Income
Jobs Housing Nexus Analysis
Campbell, CA

Unit Size	2-Bedroom Unit	3-Bedroom Unit	4-Bedroom Unit
Household Size	3-person HH	4-person HH	5-person HH
100% AMI Santa Clara County 2016	$96,400	$107,100	$115,650
Annual Income @ 110%	$106,040	$117,810	$127,215
% for Housing Costs	35%	35%	35%
Available for Housing Costs	$37,114	$41,234	$44,525
(Less) Property Taxes	($4,392)	($4,884)	($5,232)
(Less) HOA	($2,700)	($2,820)	($2,940)
(Less) Utilities	($1,416)	($1,776)	($2,208)
(Less) Insurance	($700)	($800)	($900)
(Less) Mortgage Insurance	($4,698)	($5,211)	($5,603)
Income Available for Mortgage	$23,208	$25,743	$27,643
Mortgage Amount	$348,300	$386,300	$414,800
Down Payment (homebuyer cash)	$18,300	$20,350	$21,800
Supported Home Price	$366,600	$406,650	$436,600
Key Assumptions			
- Mortgage Interest Rate [1]	5.30%	5.30%	5.30%
- Down Payment [2]	5.00%	5.00%	5.00%
- Property Taxes (% of sales price) [3]	1.20%	1.20%	1.20%
- HOA (per month) [4]	$225	$235	$245
- Utilities (per month) [5]	$118	$148	$184
- Mortgage Insurance (% of loan amount)	1.35%	1.35%	1.35%

(1) Mortgage interest rate based on 15-year Freddie Mac average; assumes 30-year fixed rate mortgage.
(2) Down payment amount is an estimate for Moderate Income homebuyers.
(3) Property tax rate is an estimated average for new projects.
(4) Homeowners Association (HOA) dues is an estimate for the average new project.
(5) Utility allowances from Santa Clara County Housing Authority (2016).

Table 7
Affordability Gaps for Extremely Low, Very Low, and Low Income
Jobs Housing Nexus Analysis
Campbell, CA

		Extremely Low	Very Low	Low Income
I. Affordable Prototype				
Tenure		Rental		
Average Unit Size		900 square feet		
Density		~30-35 du/acre		
II. Development Costs [1]		Per Unit	Per Unit	Per Unit
Land Acquisition		$129,000	$129,000	$129,000
Directs		$261,000	$261,000	$261,000
Indirects		$91,000	$91,000	$91,000
Financing		$19,000	$19,000	$19,000
Total Costs		$500,000	$500,000	$500,000
III. Supported Financing				
Affordable Rents				
Average Number of Bedrooms		2 Bedrooms	2 Bedrooms	2 Bedrooms
Maximum TCAC Rent [2]		$753	$1,256	$1,507
(Less) Utility Allowance [3]		($74)	($74)	($74)
Maximum Monthly Rent		$679	$1,182	$1,433
Net Operating Income (NOI)				
Gross Potential Income		Per Unit	Per Unit	Per Unit
Monthly		$679	$1,182	$1,433
Annual		$8,148	$14,184	$17,196
Other Income		$250	$250	$250
(Less) Vacancy	5.0%	($420)	($722)	($872)
Effective Gross Income (EGI)		$7,978	$13,712	$16,574
(Less) Operating Expenses		($5,600)	($5,600)	($5,600)
(Less) Property Taxes [4]		$0	$0	$0
Net Operating Income (NOI)		$2,378	$8,112	$10,974
Permanent Financing				
Permanent Loan (tax exempt)		$32,000	$108,000	$147,000
Deferred Developer Fee		$2,500	$2,500	$2,500
4% Tax Credit Equity		$171,000	$171,000	$171,000
Total Sources		$205,500	$281,500	$320,500
IV. Supported Financing				
Supported Permanent Financing		$205,500	$281,500	$320,500
(Less) Total Development Costs		($500,000)	($500,000)	($500,000)
Affordability Gap		($294,500)	($218,500)	($179,500)

[1] Development costs estimated by KMA based on affordable project pro formas in Santa Clara County (includes prevailing wages) and residential land sale comps.

[2] Maximum rents per Tax Credit Allocation Committee (TCAC) for projects utilizing Low Income Housing Tax Credits.

[3] Utility allowances from Santa Clara County Housing Authority (2016).

[4] Assumes tax exemption for non-profit general partner.

TABLE 8
TOTAL HOUSING NEXUS COST
JOBS HOUSING NEXUS ANALYSIS
CAMPBELL, CA

INCOME CATEGORY	Affordability Gap Per Unit	Nexus Cost Per Sq.Ft. of Building Area[3]					
		Office	High Tech Office	Retail	Hotel	Light Industrial	Warehouse
Extremely Low (0% - 30% AMI)	$294,500 [1]	$7.80	$4.50	$106.10	$44.60	$19.20	$10.90
Very Low Income (30% - 50% AMI)	$218,500 [1]	$26.20	$19.90	$89.10	$42.80	$36.60	$16.10
Low Income (50% to 80% AMI)	$179,500 [1]	$39.50	$39.50	$47.00	$24.60	$39.70	$11.20
Moderate Income (80% to 120% AMI)	$217,000 [2]	$66.60	$92.50	$18.50	$13.50	$51.00	$8.40
Total		**$140.10**	**$156.40**	**$260.70**	**$125.50**	**$146.50**	**$46.60**

Notes:

(1) Assumes rental units. Affordability Gap reflected is the remaining gap after financing available through 4% tax credits. See Table 7.

(2) Assumes ownership unit. See Table 5.

(3) Calculated by multiplying housing demand factors from Table 4 by the affordability gap.

APPENDIX A: DISCUSSION OF VARIOUS FACTORS IN RELATION TO NEXUS CONCEPT

This appendix provides a discussion of various specific factors and assumptions in relation to the nexus concept to supplement the overview provided in Section II.

1. Addressing the Housing Needs of a New Population vs. the Existing Population

This nexus analysis assumes there is no excess supply of affordable housing available to absorb or offset new demand; therefore, new affordable units are needed to mitigate the new affordable housing demand generated by development of new workplace buildings.

This nexus study does not address the housing needs of the existing population. Rather, the study focuses exclusively on documenting and quantifying the housing needs created by development of new workplace buildings.

Local analyses of housing conditions have found that new housing affordable to lower income households is not being added to the supply in sufficient quantity to meet the needs of new employee households. If this were not the case and significant numbers of units were being added to the supply to accommodate the Low to Moderate income groups, or if residential units were experiencing significant long term vacancy levels, particularly in affordable units, then the need for new units would be questionable.

2. No Excess Supply of Affordable Housing

An assumption of this residential nexus analysis is that there is no excess supply of affordable housing available to absorb or offset new demand; therefore, new affordable units are needed to mitigate the new affordable housing demand generated by development of new market rate residential units. Based on a review of the current Census information for the City of Campbell, conditions are consistent with this underlying assumption. According to the Census (2010 to 2014 ACS), approximately 40% of all households in the City were paying thirty percent or more of their income on housing. In addition, housing vacancy is minimal.

3. Substitution Factor

Any given new building may be occupied partly, or even perhaps totally, by employees relocating from elsewhere in the region. Buildings are often leased entirely to firms relocating from other buildings in the same jurisdiction. However, when a firm relocates to a new building from elsewhere in the region, there is a space in an existing building that is vacated and occupied by another firm. That building in turn may be filled by some combination of newcomers to the area and existing workers. Somewhere in the chain there are jobs new to the region. The net effect is that new buildings accommodate new employees, although not necessarily inside the new buildings themselves.

4. Indirect Employment and Multiplier Effects

The multiplier effect refers to the concept that the income generated by a new job recycles through the economy and results in additional jobs. The total number of jobs generated is broken down into three categories – direct, indirect and induced. In the case of the nexus analysis, the direct jobs are those located in the new workspace buildings that would be subject to the linkage fee. Multiplier effects encompass indirect and induced employment. Indirect jobs are generated by suppliers to the businesses located in the new workspace buildings. Induced jobs are generated by local spending on goods and services by employees.

Multiplier effects vary by industry. Industries that draw heavily on a network of local suppliers tend to generate larger multiplier effects. Industries that are labor intensive also tend to have larger multiplier effects as a result of the induced effects of employee spending.

Theoretically, a jobs-housing nexus analysis could consider multiplier effects although the potential for double-counting exists to the extent indirect and induced jobs are added in other new buildings in jurisdictions that have jobs housing linkage fees. KMA chose to omit the multiplier effects (the indirect and induced employment impacts) to avoid potential double-counting and make the analysis more conservative.

In addition, the nexus analysis addresses direct “inside” employment only. In the case of an office building, for example, direct employment covers the various managerial, professional and clerical people that work in the building; it does not include the security guards, the delivery services, the landscape maintenance workers, and many others that are associated with the normal functioning of an office building. In other words, any analysis that ties lower income housing to the number of workers inside buildings will continue to understate the demand. Thus, confining the analysis to the direct employees does not address all the lower income workers associated with each type of building and understates the impacts.

5. Economic Cycles

An impact analysis of this nature is intended to support a one-time impact requirement to address impacts generated over the life of a project (generally 40 years or more). Short-term conditions, such as a recession or a vigorous boom period, are not an appropriate basis for estimating impacts over the life of the building. These cycles can produce impacts that are higher or lower on a temporary basis.

Development of new workspace buildings tends to be minimal during a recession and generally remains minimal until conditions improve or there is confidence that improved conditions are imminent. When this occurs, the improved economic condition will absorb existing vacant space and underutilized capacity of existing workers, employed and unemployed. By the time new buildings become occupied, conditions will have likely improved.

To the limited extent that new workspace buildings are built during a recession, housing impacts from these new buildings may not be fully experienced immediately, but the impacts will be experienced at some point. New buildings delivered during a recession can sometimes sit vacant for a period after completion. Even if new buildings are immediately occupied, overall absorption of space can still be zero or negative if other buildings are vacated in the process. Jobs added may also be filled in part by unemployed or underemployed workers who are already housed locally. As the economy recovers, firms will begin to expand and hire again filling unoccupied space as unemployment is reduced. New space delivered during the recession still adds to the total supply of employment space in the region. Though the jobs are not realized immediately, as the economy recovers and vacant space is filled, this new employment space absorbs or accommodates job growth. Although there may be a delay in experiencing the impacts, the fundamental relationship between new buildings, added jobs, and housing needs remains over the long term.

In contrast, during a vigorous economic boom period, conditions exist in which elevated impacts are experienced on a temporary basis. As an example, compression of employment densities can occur as firms add employees while making do with existing space. Compressed employment densities mean more jobs added for a given amount of building area. Boom periods also tend to go hand-in-hand with rising development costs and increasing home prices. These factors can bring market rate housing out of reach of a larger percentage of the workforce and increase the cost of delivering affordable units.

While the economic cycles can produce impacts that are temporarily higher or lower than normal, an impact fee is designed to be collected once, during the development of the project. Over the lifetime of the project, the impacts of the development on the demand for affordable housing will be realized, despite short-term booms and recessions.

APPENDIX B: NON-DUPLICATION BETWEEN POTENTIAL RESIDENTIAL AND NON-RESIDENTIAL IMPACT FEE PROGRAMS

The City of Campbell is considering establishing an impact fee on non-residential and certain residential construction to help mitigate the impacts of the new buildings on the demand for affordable housing in the City. KMA conducted both a Non-Residential Nexus Analysis and a Residential Nexus to assist the City in updating its Affordable Housing programs; in this appendix, KMA conducts an 'overlap analysis' to determine whether any double-counting of impacts is possible.

To briefly summarize the Non-Residential Nexus Analysis (which is a jobs-housing nexus analysis), the logic begins with jobs located in new workplace buildings including office buildings, retail spaces and hotels. The nexus analysis then identifies the compensation structure of the new jobs depending on the building type, the income of the new worker households, and the housing affordability level of the new worker households, concluding with the number of new worker households in the lower income affordability levels.

In the Residential Nexus Analysis, the logic begins with the households purchasing or renting new market rate units. The purchasing power of those households generates new jobs in the local economy. The nexus analysis quantifies the jobs created by the spending of the new households and then identifies the compensation structure of the new jobs, the income of the new worker households, and the housing affordability level of the new worker households, concluding with the number of new worker households in the lower income affordability levels.

Some of the jobs that are counted in the Non-Residential Nexus Analysis are also counted in the Residential Nexus Analysis. The overlap potential exists in jobs generated by the expenditures of City residents, such as expenditures for food, personal services, restaurant meals and entertainment. However, many jobs counted in the jobs housing nexus are not addressed in the residential nexus analysis at all. Firms in office, industrial, warehouse and hotel buildings often serve a much broader, sometimes international, market and are generally not focused on providing services to local residents at all. These non-local serving jobs are not counted in the residential nexus analysis. Retail, which typically is primarily local-serving, is the building type that has the greatest potential for overlap between the jobs counted in the residential and non-residential nexus analyses.

Theoretically, there is a set of conditions in which 100% of the jobs counted for purposes of the Non-Residential Nexus are also counted for purposes of the Residential Nexus Analysis. For example, a small retail store or restaurant might be located on the ground floor of a new apartment building and entirely dependent upon customers from the apartments in the floors above. The commercial space on the ground floor pays the non-residential fee and the apartments would pay a residential impact fee. In this special case, the two programs mitigate the affordable housing demand of the very same workers. The combined requirements of the two programs to fund construction of affordable units must not exceed 100% of the demand for affordable units generated by employees in the new commercial space.

Complete overlap between jobs counted in the Non-Residential Nexus Analysis and jobs counted in the Residential Nexus Analysis could occur only in a very narrow set of theoretical circumstances. The following analysis demonstrates that the combined mitigation requirements do not exceed the nexus even if every job counted in the Residential Nexus Analysis is also counted in the Non-Residential Nexus Analysis. As discussed, the theoretical possibility of 100% overlap exists mainly with retail jobs that serve residents of new housing in Campbell; therefore, the overlap analysis is focused on the retail land use.

Recommended Non-Residential Fee as a Percent of Maximum Fee

The Non-Residential Nexus Analysis calculates the maximum mitigation amount supported by the analysis. KMA recommended a fee in the range of $5 - $10 per square foot for retail development. The overlap analysis is conducted on the high end of this range; if the City ultimately selects a higher fee level, the overlap analysis should be revised to the higher fee level.

Building Type	Maximum Nexus Amount	Maximum Recommended Fee Level	Percent of Maximum
Retail	$260.70	$10.00	4%

Source: Keyser Marston Associates Summary, Context Materials and Recommendations Report.

The conclusion is that the maximum recommended fee level for Campbell represents 4% of the nexus cost. So, at most, the Non-Residential fee in Campbell would mitigate approximately 4% of the demand for affordable units generated by new non-residential space.

KMA notes that new residents in Campbell will also make retail purchases in other jurisdictions in Santa Clara County, some of which have non-residential housing impact fee programs in place. The highest retail fee in Santa Clara County is currently in Palo Alto, which charges $19.85 per square foot for new retail space. This represents just 8% of the maximum nexus amount for new non-residential space.

Residential Requirement under Consideration as a Percent of Maximum Fee

KMA has recommended that the City of Campbell consider an affordable housing impact fee in the range of $20 - $25 per square foot for rental apartment projects. The table below compares the maximum supported fee amounts for apartments to the upper end of the recommended fee range of $25 per square foot. Again, if the City ultimately selects a higher fee level, this overlap analysis should be revised.

Proposed Fee as Percent of Maximum Fee Amount, Apartment Units	
	Apartments
Maximum Nexus Amount	$48.00
Maximum Recommended Fee	$25.00
Max Fee as Percent of Nexus	52%

Source: Keyser Marston Associates Summary, Context Materials and Recommendations Report.

The conclusion is that the maximum recommended affordable housing impact fee level for apartments is equal to 52% of the maximum supported by the Residential Nexus analysis.

KMA also recommended consideration of fees applicable to small for-sale projects of nine units or less. KMA recommended fees of between $15 to $25 per square foot be considered. At the upper end, a $25 per square foot fee would equate to 92% of the $27.10 nexus result applicable to the single family large lot prototype.

Combined Requirements within Nexus Maximums

The highest recommended non-residential fee level for Campbell mitigates 4% of the maximum supported impact fee amount in Campbell. The recommended impact fee level for new apartments represents 52% of the maximum supported impact fee amount. Therefore, the combined affordable housing mitigations would not exceed the nexus even if there were 100% overlap in the jobs counted in the two nexus analyses.

Total Percent of Housing Demand Mitigated	
	Apartments
Max Residential Fee as Percent of Residential Nexus	52%
Max Non-Res. Fee as Percent of Non-Residential Nexus for Retail	4%
Total Percent of Demand Mitigated	56%

For small projects of fewer than 10 units, the theoretical situation described above in which 100% overlap occurs is probably even more remote. However, even under this scenario, a potential $25 per square foot fee applicable to small for-sale projects (representing the upper end of the recommended range) would represent 92% of the nexus. When added to the retail fee representing 4% of the nexus, the two requirements combined (92% + 4% = 96%) still do not mitigate more than 100% of the affordable housing demand generated.

APPENDIX C: SUPPORTING NEXUS TABLES

APPENDIX C TABLE 1
2014 NATIONAL OFFICE WORKER DISTRIBUTION BY OCCUPATION
JOBS HOUSING NEXUS MODEL
CAMPBELL, CA

Major Occupations (3% or more)	2014 National Office Industry Occupation Distribution	
Management Occupations	2,478,949	*9.0%*
Business and Financial Operations Occupations	3,102,766	*11.2%*
Computer and Mathematical Occupations	6,461,261	*23.4%*
Architecture and Engineering Occupations	1,358,359	*4.9%*
Healthcare Practitioners and Technical Occupations	1,152,766	*4.2%*
Sales and Related Occupations	1,789,343	*6.5%*
Office and Administrative Support Occupations	5,752,417	*20.9%*
All Other Office Occupations	5,488,426	*19.9%*
INDUSTRY TOTAL	27,584,287	100.0%

Industries weighted to reflect Santa Clara County industry mix.

Source: Bureau of Labor Statistics;
Prepared by: Keyser Marston Associates, Inc.
Filename: Appendix C Campbell; Office Major Occupations Matrix; 8/26/2016; dd

APPENDIX C TABLE 2
AVERAGE ANNUAL COMPENSATION, 2015
OFFICE WORKER OCCUPATIONS
JOBS HOUSING NEXUS MODEL
CAMPBELL, CA

Occupation [1]	2015 Avg. Compensation [2]	% of Total Occupation Group [3]	% of Total Office Workers
Page 1 of 3			
Management Occupations			
General and Operations Managers	$157,600	25.0%	2.2%
Marketing Managers	$190,500	7.0%	0.6%
Sales Managers	$167,900	6.3%	0.6%
Computer and Information Systems Managers	$186,700	20.1%	1.8%
Financial Managers	$168,700	9.1%	0.8%
Architectural and Engineering Managers	$190,600	4.3%	0.4%
Managers, All Other	$163,400	5.6%	0.5%
All Other Management Occupations (Avg. All Categories)	$162,300	22.8%	2.0%
Weighted Mean Annual Wage	***$170,200***	**100.0%**	**9.0%**
Business and Financial Operations Occupations			
Human Resources Specialists	$89,400	7.2%	0.8%
Management Analysts	$111,500	13.8%	1.5%
Training and Development Specialists	$95,300	4.0%	0.5%
Market Research Analysts and Marketing Specialists	$110,200	12.6%	1.4%
Business Operations Specialists, All Other	$98,100	12.3%	1.4%
Accountants and Auditors	$94,200	21.7%	2.4%
Financial Analysts	$109,600	5.2%	0.6%
All Other Business and Financial Operations (Avg. All Categories)	$96,400	23.2%	2.6%
Weighted Mean Annual Wage	***$100,100***	**100.0%**	**11.2%**
Computer and Mathematical Occupations			
Computer Systems Analysts	$110,000	12.4%	2.9%
Computer Programmers	$95,300	10.2%	2.4%
Software Developers, Applications	$144,400	28.4%	6.7%
Software Developers, Systems Software	$140,300	11.5%	2.7%
Web Developers	$108,100	4.1%	1.0%
Network and Computer Systems Administrators	$101,500	6.2%	1.4%
Computer User Support Specialists	$76,500	11.1%	2.6%
All Other Computer and Mathematical Occupations (Avg. All Categories)	$125,600	16.0%	3.8%
Weighted Mean Annual Wage	***$120,000***	**100.0%**	**23.4%**

Sources: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc.
Filename: Appendix C Campbell; Office Compensation; 8/26/2016; dd

Occupation [1]	2015 Avg. Compensation [2]	% of Total Occupation Group [3]	% of Total Office Workers
Page 2 of 3			
Architecture and Engineering Occupations			
Architects, Except Landscape and Naval	$89,500	6.0%	0.3%
Civil Engineers	$101,200	11.2%	0.6%
Computer Hardware Engineers	$138,100	8.0%	0.4%
Electrical Engineers	$130,000	7.6%	0.4%
Electronics Engineers, Except Computer	$132,400	6.3%	0.3%
Industrial Engineers	$116,300	5.0%	0.2%
Mechanical Engineers	$113,300	10.3%	0.5%
Engineers, All Other	$124,100	4.9%	0.2%
Architectural and Civil Drafters	$61,900	5.4%	0.3%
Electrical and Electronics Engineering Technicians	$70,200	4.5%	0.2%
All Other Architecture and Engineering Occupations (Avg. All Categories)	$113,400	30.8%	1.5%
Weighted Mean Annual Wage	***$111,000***	**100.0%**	**4.9%**
Healthcare Practitioners and Technical Occupations			
Dentists, General	$158,300	7.4%	0.3%
Physicians and Surgeons, All Other	$153,300	6.1%	0.3%
Registered Nurses	$123,500	12.9%	0.5%
Dental Hygienists	$96,500	15.6%	0.7%
Veterinary Technologists and Technicians	$38,700	4.1%	0.2%
Licensed Practical and Licensed Vocational Nurses	$60,400	5.6%	0.2%
All Other Healthcare Practitioners and Technical Occupations (Avg. All Categories)	$111,800	48.4%	2.0%
Weighted Mean Annual Wage	***$111,100***	**100.0%**	**4.2%**
Sales and Related Occupations			
First-Line Supervisors of Non-Retail Sales Workers	$115,400	4.5%	0.3%
Advertising Sales Agents	$78,900	6.9%	0.4%
Insurance Sales Agents	$75,400	5.9%	0.4%
Securities, Commodities, and Financial Services Sales Agents	$91,800	4.6%	0.3%
Sales Representatives, Services, All Other	$89,500	33.6%	2.2%
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Prod	$118,700	11.8%	0.8%
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scienti	$77,000	5.8%	0.4%
Real Estate Sales Agents	$64,600	5.5%	0.4%
All Other Sales and Related Occupations (Avg. All Categories)	$55,500	21.5%	1.4%
Weighted Mean Annual Wage	***$83,200***	**100.0%**	**6.5%**

Sources: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc.
Filename: Appendix C Campbell; Office Compensation; 8/26/2016; dd

Occupation [1]	2015 Avg. Compensation [2]	% of Total Occupation Group [3]	% of Total Office Workers
Page 3 of 3			
Office and Administrative Support Occupations			
First-Line Supervisors of Office and Administrative Support Workers	$70,600	6.7%	1.4%
Bookkeeping, Accounting, and Auditing Clerks	$50,300	8.3%	1.7%
Customer Service Representatives	$48,200	15.5%	3.2%
Receptionists and Information Clerks	$36,600	5.9%	1.2%
Executive Secretaries and Executive Administrative Assistants	$67,200	4.8%	1.0%
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	$45,000	10.6%	2.2%
Office Clerks, General	$40,900	13.6%	2.8%
All Other Office and Administrative Support Occupations (Avg. All Categories)	$48,100	34.5%	7.2%
Weighted Mean Annual Wage	***$48,700***	**100.0%**	**20.9%**
Weighted Average Annual Wage - All Occupations	***$100,000***		80.1%

[1] Including occupations representing 4% or more of the major occupation group.

[2] The methodology utilized by the California Employment Development Department (EDD) assumes that hourly paid employees are employed full-time. Annual compensation is calculated by EDD by multiplying hourly wages by 40 hours per work week by 52 weeks.

[3] Occupation percentages are based on the 2014 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on the 2014 Occupational Employment Survey data applicable to Santa Clara County, updated by the California Employment Development Department to 2015 wage levels.

Sources: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc.
Filename: Appendix C Campbell; Office Compensation; 8/26/2016; dd

APPENDIX C TABLE 3
2014 NATIONAL HIGH TECH OFFICE WORKER DISTRIBUTION BY OCCUPATION
JOBS HOUSING NEXUS MODEL
CAMPBELL, CA

Major Occupations (2% or more)	2014 National High Tech Office Industry Occupation Distribution	
Management Occupations	102,887	*10.1%*
Business and Financial Operations Occupations	95,874	*9.4%*
Computer and Mathematical Occupations	559,429	*54.8%*
Architecture and Engineering Occupations	25,236	*2.5%*
Arts, Design, Entertainment, Sports, and Media Occupations	21,891	*2.1%*
Sales and Related Occupations	68,708	*6.7%*
Office and Administrative Support Occupations	112,078	*11.0%*
All Other High Tech Office Occupations	34,207	*3.4%*
INDUSTRY TOTAL	1,020,309	100.0%

Industries weighted to reflect Santa Clara County industry mix.

Source: Bureau of Labor Statistics;
Prepared by: Keyser Marston Associates, Inc.
Filename: Appendix C Campbell; HighTech Major Occupations; 8/26/2016; dd

APPENDIX C TABLE 4
AVERAGE ANNUAL COMPENSATION, 2015
HIGH TECH OFFICE WORKER OCCUPATIONS
JOBS HOUSING NEXUS MODEL
CAMPBELL, CA

Occupation [1]	2015 Avg. Compensation [2]	% of Total Occupation gh Group [3]	% of Total Tech Office Workers
Page 1 of 2			
Management Occupations			
General and Operations Managers	$157,600	25.8%	2.6%
Marketing Managers	$190,500	6.8%	0.7%
Sales Managers	$167,900	7.3%	0.7%
Computer and Information Systems Managers	$186,700	37.5%	3.8%
Financial Managers	$168,700	5.2%	0.5%
Managers, All Other	$163,400	4.5%	0.4%
All Other Management Occupations (Avg. All Categories)	$162,300	13.0%	1.3%
Weighted Mean Annual Wage	***$173,000***	**100.0%**	**10.1%**
Business and Financial Operations Occupations			
Human Resources Specialists	$89,400	9.1%	0.9%
Management Analysts	$111,500	19.8%	1.9%
Training and Development Specialists	$95,300	7.6%	0.7%
Market Research Analysts and Marketing Specialists	$110,200	16.9%	1.6%
Business Operations Specialists, All Other	$98,100	15.7%	1.5%
Accountants and Auditors	$94,200	12.7%	1.2%
Financial Analysts	$109,600	5.5%	0.5%
All Other Business and Financial Operations (Avg. All Categories)	$96,400	12.6%	1.2%
Weighted Mean Annual Wage	***$101,700***	**100.0%**	**9.4%**
Computer and Mathematical Occupations			
Computer Systems Analysts	$110,000	14.6%	8.0%
Computer Programmers	$95,300	12.0%	6.6%
Software Developers, Applications	$144,400	25.0%	13.7%
Software Developers, Systems Software	$140,300	12.4%	6.8%
Network and Computer Systems Administrators	$101,500	6.0%	3.3%
Computer User Support Specialists	$76,500	11.5%	6.3%
All Other Computer and Mathematical Occupations (Avg. All Categories)	$125,600	18.4%	10.1%
Weighted Mean Annual Wage	***$119,100***	**100.0%**	**54.8%**
Architecture and Engineering Occupations			
Computer Hardware Engineers	$138,100	36.2%	0.9%
Electrical Engineers	$130,000	10.5%	0.3%
Electronics Engineers, Except Computer	$132,400	15.5%	0.4%
Industrial Engineers	$116,300	8.5%	0.2%
Engineers, All Other	$124,100	5.1%	0.1%
Electrical and Electronics Engineering Technicians	$70,200	8.5%	0.2%
All Other Architecture and Engineering Occupations (Avg. All Categories)	$113,400	15.6%	0.4%
Weighted Mean Annual Wage	***$124,100***	**100.0%**	**2.5%**

Sources: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc.
Filename: Appendix C Campbell; HighTech Compensation; 8/26/2016; dd

Occupation [1]	2015 Avg. Compensation [2]	% of Total Occupation gh Group [3]	% of Total Tech Office Workers
Page 2 of 2			
Arts, Design, Entertainment, Sports, and Media Occupations			
Multimedia Artists and Animators	$81,600	12.0%	0.3%
Graphic Designers	$74,400	22.1%	0.5%
Producers and Directors	$109,500 [4]	4.2%	0.1%
Reporters and Correspondents	$54,100	4.6%	0.1%
Public Relations Specialists	$89,800	8.5%	0.2%
Editors	$77,600	11.7%	0.2%
Technical Writers	$105,600	22.3%	0.5%
Writers and Authors	$77,000	4.0%	0.1%
All Other Arts, Design, Entertainment, Sports, and Media Occupations (Avg. All Cate	$71,900	10.6%	0.2%
Weighted Mean Annual Wage	***$84,300***	**100.0%**	**2.1%**
Sales and Related Occupations			
First-Line Supervisors of Non-Retail Sales Workers	$115,400	4.5%	0.3%
Sales Representatives, Services, All Other	$89,500	48.3%	3.3%
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Prod	$118,700	23.7%	1.6%
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scienti	$77,000	5.8%	0.4%
Sales Engineers	$139,400	9.8%	0.7%
All Other Sales and Related Occupations (Avg. All Categories)	$55,500	7.9%	0.5%
Weighted Mean Annual Wage	***$99,100***	**100.0%**	**6.7%**
Office and Administrative Support Occupations			
First-Line Supervisors of Office and Administrative Support Workers	$70,600	6.4%	0.7%
Bookkeeping, Accounting, and Auditing Clerks	$50,300	10.4%	1.1%
Customer Service Representatives	$48,200	24.5%	2.7%
Executive Secretaries and Executive Administrative Assistants	$67,200	6.8%	0.7%
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	$45,000	11.6%	1.3%
Office Clerks, General	$40,900	15.6%	1.7%
All Other Office and Administrative Support Occupations (Avg. All Categories)	$48,100	24.8%	2.7%
Weighted Mean Annual Wage	***$49,600***	**100.0%**	**11.0%**
Weighted Average Annual Wage - All Occupations	***$113,000***		96.6%

[1] Including occupations representing 4% or more of the major occupation group.

[2] The methodology utilized by the California Employment Development Department (EDD) assumes that hourly paid employees are employed full-time. Annual compensation is calculated by EDD by multiplying hourly wages by 40 hours per work week by 52 weeks.

[3] Occupation percentages are based on the 2014 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on the 2014 Occupational Employment Survey data applicable to Santa Clara County, updated by the California Employment Development

[4] Santa Clara County wage data not available for this occupation. Estimated based on wage data from San Francisco & San Mateo Counties.

Sources: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc.
Filename: Appendix C Campbell; HighTech Compensation; 8/26/2016; dd

APPENDIX C TABLE 5
2014 NATIONAL RETAIL WORKER DISTRIBUTION BY OCCUPATION
JOBS HOUSING NEXUS MODEL
CAMPBELL, CA

Major Occupations (2% or more)	2014 National Retail Industry Occupation Distribution	
Management Occupations	628,109	*2.3%*
Food Preparation and Serving Related Occupations	11,168,090	*40.7%*
Personal Care and Service Occupations	761,400	*2.8%*
Sales and Related Occupations	8,674,839	*31.6%*
Office and Administrative Support Occupations	2,539,341	*9.3%*
Installation, Maintenance, and Repair Occupations	632,209	*2.3%*
Production Occupations	572,365	*2.1%*
Transportation and Material Moving Occupations	1,225,101	*4.5%*
All Other Retail Occupations	1,239,781	*4.5%*
INDUSTRY TOTAL	27,441,236	100.0%

Industries weighted to reflect Santa Clara County industry mix.

Source: Bureau of Labor Statistics;
Prepared by: Keyser Marston Associates, Inc.
Filename: Appendix C Campbell; Retail Major Occupations Matrix; 8/26/2016; dd

APPENDIX C TABLE 6
AVERAGE ANNUAL COMPENSATION, 2015
RETAIL WORKER OCCUPATIONS
JOBS HOUSING NEXUS MODEL
CAMPBELL, CA

Occupation [1]	2015 Avg. Compensation [2]	% of Total Occupation Group [3]	% of Total Retail Workers
Page 1 of 2			
Management Occupations			
General and Operations Managers	$157,600	50.1%	1.1%
Sales Managers	$167,900	11.9%	0.3%
Food Service Managers	$57,200	28.3%	0.6%
All Other Management Occupations (Avg. All Categories)	$162,300	9.8%	0.2%
Weighted Mean Annual Wage	***$130,900***	**100.0%**	**2.3%**
Food Preparation and Serving Related Occupations			
First-Line Supervisors of Food Preparation and Serving Workers	$36,900	7.1%	2.9%
Cooks, Fast Food	$21,300	5.0%	2.0%
Cooks, Restaurant	$27,500	9.8%	4.0%
Food Preparation Workers	$24,400	6.5%	2.6%
Combined Food Preparation and Serving Workers, Including Fast Food	$23,000	28.3%	11.5%
Waiters and Waitresses	$25,500	21.2%	8.6%
Dishwashers	$20,300	4.2%	1.7%
All Other Business and Financial Operations (Avg. All Categories)	$25,300	18.0%	7.3%
Weighted Mean Annual Wage	***$25,300***	**100.0%**	**40.7%**
Personal Care and Service Occupations			
First-Line Supervisors of Personal Service Workers	$42,800	4.3%	0.1%
Nonfarm Animal Caretakers	$32,400	10.8%	0.3%
Hairdressers, Hairstylists, and Cosmetologists	$24,600	51.9%	1.4%
Manicurists and Pedicurists	$21,900	12.5%	0.3%
Skincare Specialists	$30,400	4.7%	0.1%
All Other Personal Care and Service Occupations (Avg. All Categories)	$29,100	15.8%	0.4%
Weighted Mean Annual Wage	***$26,900***	**100.0%**	**2.8%**
Sales and Related Occupations			
First-Line Supervisors of Retail Sales Workers	$51,400	12.0%	3.8%
Cashiers	$26,600	31.0%	9.8%
Retail Salespersons	$29,200	50.3%	15.9%
All Other Sales and Related Occupations (Avg. All Categories)	$55,500	6.7%	2.1%
Weighted Mean Annual Wage	***$32,800***	**100.0%**	**31.6%**

Sources: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc.
Filename: Appendix C Campbell; Retail Compensation; 8/26/2016; dd

Occupation [1]	2015 Avg. Compensation [2]	% of Total Occupation Group [3]	% of Total Retail Workers
Page 2 of 2			
Office and Administrative Support Occupations			
First-Line Supervisors of Office and Administrative Support Workers	$70,600	6.4%	0.6%
Bookkeeping, Accounting, and Auditing Clerks	$50,300	6.9%	0.6%
Customer Service Representatives	$48,200	11.3%	1.0%
Receptionists and Information Clerks	$36,600	4.1%	0.4%
Shipping, Receiving, and Traffic Clerks	$36,500	4.9%	0.5%
Stock Clerks and Order Fillers	$31,300	47.3%	4.4%
Office Clerks, General	$40,900	8.2%	0.8%
All Other Office and Administrative Support Occupations (Avg. All Categories)	$48,100	10.9%	1.0%
Weighted Mean Annual Wage	***$40,100***	**100.0%**	**9.3%**
Installation, Maintenance, and Repair Occupations			
First-Line Supervisors of Mechanics, Installers, and Repairers	$80,600	7.9%	0.2%
Computer, Automated Teller, and Office Machine Repairers	$46,200	6.7%	0.2%
Automotive Service Technicians and Mechanics	$52,700	37.4%	0.9%
Tire Repairers and Changers	$32,300	9.4%	0.2%
Maintenance and Repair Workers, General	$47,300	7.8%	0.2%
All Other Installation, Maintenance, and Repair Occupations (Avg. All Categories)	$55,900	30.8%	0.7%
Weighted Mean Annual Wage	***$53,100***	**100.0%**	**2.3%**
Production Occupations			
First-Line Supervisors of Production and Operating Workers	$68,400	6.2%	0.1%
Bakers	$29,200	16.2%	0.3%
Butchers and Meat Cutters	$35,100	20.5%	0.4%
Meat, Poultry, and Fish Cutters and Trimmers	$27,500	4.2%	0.1%
Laundry and Dry-Cleaning Workers	$26,300	15.3%	0.3%
Pressers, Textile, Garment, and Related Materials	$24,300	6.1%	0.1%
All Other Production Occupations (Avg. All Categories)	$40,800	31.6%	0.7%
Weighted Mean Annual Wage	***$35,700***	**100.0%**	**2.1%**
Transportation and Material Moving Occupations			
Driver/Sales Workers	$34,400	18.0%	0.8%
Light Truck or Delivery Services Drivers	$39,300	16.2%	0.7%
Parking Lot Attendants	$21,500	6.7%	0.3%
Cleaners of Vehicles and Equipment	$25,800	6.8%	0.3%
Laborers and Freight, Stock, and Material Movers, Hand	$31,700	23.6%	1.1%
Packers and Packagers, Hand	$25,300	13.8%	0.6%
All Other Transportation and Material Moving Occupations (Avg. All Categories)	$37,300	15.0%	0.7%
Weighted Mean Annual Wage	***$32,300***	**100.0%**	**4.5%**
Weighted Average Annual Wage - All Occupations	***$33,000***		91.0%

[1] Including occupations representing 4% or more of the major occupation group.

[2] The methodology utilized by the California Employment Development Department (EDD) assumes that hourly paid employees are employed full-time. Annual compensation is calculated by EDD by multiplying hourly wages by 40 hours per work week by 52 weeks.

[3] Occupation percentages are based on the 2014 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on the 2014 Occupational Employment Survey data applicable to Santa Clara County, updated by the California Employment Development Department to 2015 wage levels.

Sources: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc.
Filename: Appendix C Campbell; Retail Compensation; 8/26/2016; dd

APPENDIX C TABLE 7
2014 NATIONAL HOTEL WORKER DISTRIBUTION BY OCCUPATION
JOBS HOUSING NEXUS MODEL
CAMPBELL, CA

Major Occupations (2% or more)	2014 National Hotel Industry Occupation Distribution	
Management Occupations	68,960	*4.5%*
Food Preparation and Serving Related Occupations	379,520	*24.7%*
Building and Grounds Cleaning and Maintenance Occupations	489,570	*31.9%*
Personal Care and Service Occupations	61,530	*4.0%*
Sales and Related Occupations	33,960	*2.2%*
Office and Administrative Support Occupations	310,980	*20.3%*
Installation, Maintenance, and Repair Occupations	76,990	*5.0%*
Production Occupations	34,090	*2.2%*
All Other Hotel Occupations	78,960	*5.1%*
INDUSTRY TOTAL	1,534,560	100.0%

Source: Bureau of Labor Statistics;
Prepared by: Keyser Marston Associates, Inc.
Filename: Appendix C Campbell; Hotel Major Occupations Matrix; 8/26/2016; dd

APPENDIX C TABLE 8
AVERAGE ANNUAL COMPENSATION, 2015
HOTEL WORKER OCCUPATIONS
JOBS HOUSING NEXUS MODEL
CAMPBELL, CA

Occupation [1]	2015 Avg. Compensation [2]	% of Total Occupation Group [3]	% of Total Hotel Workers
Page 1 of 2			
Management Occupations			
General and Operations Managers	$157,600	22.9%	1.0%
Sales Managers	$167,900	9.3%	0.4%
Financial Managers	$168,700	4.4%	0.2%
Food Service Managers	$57,200	11.1%	0.5%
Lodging Managers	$54,300	40.2%	1.8%
All Other Management Occupations (Avg. All Categories)	$162,300	12.2%	0.5%
Weighted Mean Annual Wage	***$107,000***	**100.0%**	**4.5%**
Food Preparation and Serving Related Occupations			
First-Line Supervisors of Food Preparation and Serving Workers	$36,900	5.3%	1.3%
Cooks, Restaurant	$27,500	13.8%	3.4%
Bartenders	$26,300	7.8%	1.9%
Waiters and Waitresses	$25,500	29.5%	7.3%
Food Servers, Nonrestaurant	$33,200	8.3%	2.1%
Dining Room and Cafeteria Attendants and Bartender Helpers	$21,300	10.5%	2.6%
Dishwashers	$20,300	6.5%	1.6%
All Other Business and Financial Operations (Avg. All Categories)	$25,300	18.1%	4.5%
Weighted Mean Annual Wage	***$26,300***	**100.0%**	**24.7%**
Building and Grounds Cleaning and Maintenance Occupations			
First-Line Supervisors of Housekeeping and Janitorial Workers	$55,800	5.8%	1.9%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	$29,000	6.1%	1.9%
Maids and Housekeeping Cleaners	$31,100	85.1%	27.1%
All Other Building and Grounds Cleaning and Maintenance Occupations (Avg. All Ca	$31,900	3.0%	1.0%
Weighted Mean Annual Wage	***$32,400***	**100.0%**	**31.9%**
Personal Care and Service Occupations			
First-Line Supervisors of Personal Service Workers	$42,800	4.3%	0.2%
Amusement and Recreation Attendants	$23,900	15.0%	0.6%
Baggage Porters and Bellhops	$25,000	34.4%	1.4%
Concierges	$32,900	17.8%	0.7%
Recreation Workers	$31,100	9.8%	0.4%
All Other Personal Care and Service Occupations (Avg. All Categories)	$29,100	18.6%	0.7%
Weighted Mean Annual Wage	***$28,400***	**100.0%**	**4.0%**

Sources: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc.
Filename: Appendix C Campbell; Hotel Compensation; 8/26/2016; dd

Occupation [1]	2015 Avg. Compensation [2]	% of Total Occupation Group [3]	% of Total Hotel Workers
Page 2 of 2			
Sales and Related Occupations			
Cashiers	$26,600	24.1%	0.5%
Retail Salespersons	$29,200	11.7%	0.3%
Sales Representatives, Services, All Other	$89,500	50.6%	1.1%
All Other Sales and Related Occupations (Avg. All Categories)	$55,500	13.5%	0.3%
Weighted Mean Annual Wage	***$62,700***	**100.0%**	**2.2%**
Office and Administrative Support Occupations			
First-Line Supervisors of Office and Administrative Support Workers	$70,600	7.5%	1.5%
Bookkeeping, Accounting, and Auditing Clerks	$50,300	5.2%	1.1%
Hotel, Motel, and Resort Desk Clerks	$26,300	71.8%	14.5%
All Other Office and Administrative Support Occupations (Avg. All Categories)	$48,100	15.5%	3.1%
Weighted Mean Annual Wage	***$34,300***	**100.0%**	**20.3%**
Installation, Maintenance, and Repair Occupations			
First-Line Supervisors of Mechanics, Installers, and Repairers	$80,600	8.0%	0.4%
Maintenance and Repair Workers, General	$47,300	89.8%	4.5%
All Other Installation, Maintenance, and Repair Occupations (Avg. All Categories)	$55,900	2.1%	0.1%
Weighted Mean Annual Wage	***$50,200***	**100.0%**	**5.0%**
Production Occupations			
Bakers	$29,200	6.7%	0.1%
Laundry and Dry-Cleaning Workers	$26,300	85.0%	1.9%
All Other Production Occupations (Avg. All Categories)	$40,800	8.3%	0.2%
Weighted Mean Annual Wage	***$27,700***	**100.0%**	**2.2%**
Weighted Average Annual Wage - All Occupations	***$36,000***		92.6%

[1] Including occupations representing 4% or more of the major occupation group.

[2] The methodology utilized by the California Employment Development Department (EDD) assumes that hourly paid employees are employed full-time. Annual compensation is calculated by EDD by multiplying hourly wages by 40 hours per work week by 52 weeks.

[3] Occupation percentages are based on the 2014 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on the 2014 Occupational Employment Survey data applicable to Santa Clara County, updated by the California Employment Development Department to 2015 wage levels.

Sources: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc.
Filename: Appendix C Campbell; Hotel Compensation; 8/26/2016; dd

APPENDIX C TABLE 9
2014 NATIONAL LIGHT INDUSTRIAL WORKER DISTRIBUTION BY OCCUPATION
JOBS HOUSING NEXUS MODEL
CAMPBELL, CA

Major Occupations (2% or more)	2014 National Light Industrial Industry Occupation Distribution	
Management Occupations	349,650	*8.8%*
Business and Financial Operations Occupations	256,476	*6.4%*
Computer and Mathematical Occupations	282,133	*7.1%*
Architecture and Engineering Occupations	379,825	*9.5%*
Life, Physical, and Social Science Occupations	605,361	*15.2%*
Sales and Related Occupations	132,409	*3.3%*
Office and Administrative Support Occupations	444,439	*11.1%*
Installation, Maintenance, and Repair Occupations	444,487	*11.1%*
Production Occupations	602,981	*15.1%*
Transportation and Material Moving Occupations	245,346	*6.2%*
All Other Light Industrial Occupations	245,863	*6.2%*
INDUSTRY TOTAL	3,988,970	100.0%

Industries weighted to reflect Santa Clara County industry mix. Includes Research & Development.

Source: Bureau of Labor Statistics;
Prepared by: Keyser Marston Associates, Inc.
Filename: Appendix C Campbell; LIndustrial Major Occupations; 8/26/2016; dd

APPENDIX C TABLE 10
AVERAGE ANNUAL COMPENSATION, 2015
LIGHT INDUSTRIAL WORKER OCCUPATIONS
JOBS HOUSING NEXUS MODEL
CAMPBELL, CA

Occupation [1]	2015 Avg. Compensation [2]	% of Total Occupation Group [3]	% of Total Light Industrial Workers
Page 1 of 3			
Management Occupations			
General and Operations Managers	$157,600	25.3%	2.2%
Marketing Managers	$190,500	4.5%	0.4%
Computer and Information Systems Managers	$186,700	6.4%	0.6%
Financial Managers	$168,700	5.4%	0.5%
Industrial Production Managers	$147,500	4.2%	0.4%
Architectural and Engineering Managers	$190,600	9.6%	0.8%
Natural Sciences Managers	$177,200	15.9%	1.4%
Managers, All Other	$163,400	8.3%	0.7%
All Other Management Occupations (Avg. All Categories)	$162,300	20.5%	1.8%
Weighted Mean Annual Wage	***$168,800***	**100.0%**	**8.8%**
Business and Financial Operations Occupations			
Purchasing Agents, Except Wholesale, Retail, and Farm Products	$81,100	8.7%	0.6%
Compliance Officers	$93,800	8.3%	0.5%
Cost Estimators	$77,900	4.4%	0.3%
Human Resources Specialists	$89,400	6.2%	0.4%
Management Analysts	$111,500	11.1%	0.7%
Training and Development Specialists	$95,300	4.6%	0.3%
Market Research Analysts and Marketing Specialists	$110,200	9.6%	0.6%
Business Operations Specialists, All Other	$98,100	18.8%	1.2%
Accountants and Auditors	$94,200	13.5%	0.9%
Financial Analysts	$109,600	4.7%	0.3%
All Other Business and Financial Operations (Avg. All Categories)	$96,400	10.1%	0.6%
Weighted Mean Annual Wage	***$97,200***	**100.0%**	**6.4%**
Computer and Mathematical Occupations			
Computer Systems Analysts	$110,000	10.5%	0.7%
Computer Programmers	$95,300	6.0%	0.4%
Software Developers, Applications	$144,400	19.1%	1.4%
Software Developers, Systems Software	$140,300	18.6%	1.3%
Network and Computer Systems Administrators	$101,500	9.0%	0.6%
Computer User Support Specialists	$76,500	7.7%	0.5%
Statisticians	$152,500	5.0%	0.4%
All Other Computer and Mathematical Occupations (Avg. All Categories)	$125,600	24.1%	1.7%
Weighted Mean Annual Wage	***$123,900***	**100.0%**	**7.1%**

Sources: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc.
Filename: Appendix C Campbell; LIndustrial Compensation; 8/26/2016; dd

Occupation [1]	2015 Avg. Compensation [2]	% of Total Occupation Group [3]	% of Total Light Industrial Workers
Page 2 of 3			
Architecture and Engineering Occupations			
Aerospace Engineers	$109,700	8.2%	0.8%
Biomedical Engineers	$119,300	5.3%	0.5%
Computer Hardware Engineers	$138,100	5.2%	0.5%
Electrical Engineers	$130,000	9.6%	0.9%
Electronics Engineers, Except Computer	$132,400	6.8%	0.6%
Industrial Engineers	$116,300	10.3%	1.0%
Mechanical Engineers	$113,300	16.3%	1.6%
Engineers, All Other	$124,100	8.4%	0.8%
Electrical and Electronics Engineering Technicians	$70,200	4.8%	0.5%
Engineering Technicians, Except Drafters, All Other	$77,400	4.6%	0.4%
All Other Architecture and Engineering Occupations (Avg. All Categories)	$113,400	20.4%	1.9%
Weighted Mean Annual Wage	***$115,000***	**100.0%**	**9.5%**
Life, Physical, and Social Science Occupations			
Biochemists and Biophysicists	$112,100	9.4%	1.4%
Medical Scientists, Except Epidemiologists	$103,700	21.7%	3.3%
Chemists	$84,200	9.4%	1.4%
Biological Technicians	$59,400	12.5%	1.9%
Chemical Technicians	$54,900	4.1%	0.6%
Social Science Research Assistants	$50,800	5.9%	0.9%
All Other Life, Physical, and Social Science Occupations (Avg. All Categories)	$86,000	37.0%	5.6%
Weighted Mean Annual Wage	***$85,500***	**100.0%**	**15.2%**
Sales and Related Occupations			
Cashiers	$26,600	11.5%	0.4%
Counter and Rental Clerks	$35,600	8.9%	0.3%
Retail Salespersons	$29,200	12.0%	0.4%
Sales Representatives, Services, All Other	$89,500	14.9%	0.5%
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Prod	$118,700	17.8%	0.6%
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientif	$77,000	20.2%	0.7%
All Other Sales and Related Occupations (Avg. All Categories)	$55,500	14.7%	0.5%
Weighted Mean Annual Wage	***$67,900***	**100.0%**	**3.3%**
Office and Administrative Support Occupations			
First-Line Supervisors of Office and Administrative Support Workers	$70,600	5.5%	0.6%
Bookkeeping, Accounting, and Auditing Clerks	$50,300	8.9%	1.0%
Customer Service Representatives	$48,200	9.3%	1.0%
Production, Planning, and Expediting Clerks	$66,500	4.3%	0.5%
Shipping, Receiving, and Traffic Clerks	$36,500	5.9%	0.7%
Executive Secretaries and Executive Administrative Assistants	$67,200	9.4%	1.0%
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	$45,000	18.3%	2.0%
Office Clerks, General	$40,900	18.4%	2.1%
All Other Office and Administrative Support Occupations (Avg. All Categories)	$48,100	19.9%	2.2%
Weighted Mean Annual Wage	***$49,600***	**100.0%**	**11.1%**

Sources: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc.
Filename: Appendix C Campbell; LIndustrial Compensation; 8/26/2016; dd

Occupation [1]	2015 Avg. Compensation [2]	% of Total Occupation Group [3]	% of Total Light Industrial Workers
Page 3 of 3			
Installation, Maintenance, and Repair Occupations			
First-Line Supervisors of Mechanics, Installers, and Repairers	$80,600	8.3%	0.9%
Computer, Automated Teller, and Office Machine Repairers	$46,200	4.9%	0.5%
Automotive Body and Related Repairers	$46,400	13.9%	1.5%
Automotive Service Technicians and Mechanics	$52,700	33.6%	3.7%
Industrial Machinery Mechanics	$57,100	6.1%	0.7%
Maintenance and Repair Workers, General	$47,300	7.4%	0.8%
All Other Installation, Maintenance, and Repair Occupations (Avg. All Categories)	$55,900	25.9%	2.9%
Weighted Mean Annual Wage	***$54,500***	**100.0%**	**11.1%**
Production Occupations			
First-Line Supervisors of Production and Operating Workers	$68,400	6.8%	1.0%
Team Assemblers	$35,200	10.7%	1.6%
Bakers	$29,200	4.5%	0.7%
Food Batchmakers	$24,300	4.5%	0.7%
Printing Press Operators	$38,800	6.7%	1.0%
Inspectors, Testers, Sorters, Samplers, and Weighers	$47,000	6.0%	0.9%
Dental Laboratory Technicians	$45,600	7.2%	1.1%
Packaging and Filling Machine Operators and Tenders	$29,200	7.9%	1.2%
Helpers--Production Workers	$26,800	4.8%	0.7%
All Other Production Occupations (Avg. All Categories)	$40,800	41.0%	6.2%
Weighted Mean Annual Wage	***$39,800***	**100.0%**	**15.1%**
Transportation and Material Moving Occupations			
First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	$53,500	4.5%	0.3%
Heavy and Tractor-Trailer Truck Drivers	$47,200	4.8%	0.3%
Light Truck or Delivery Services Drivers	$39,300	6.8%	0.4%
Automotive and Watercraft Service Attendants	$25,700	10.5%	0.6%
Industrial Truck and Tractor Operators	$38,500	5.9%	0.4%
Cleaners of Vehicles and Equipment	$25,800	36.9%	2.3%
Laborers and Freight, Stock, and Material Movers, Hand	$31,700	11.2%	0.7%
Packers and Packagers, Hand	$25,300	9.8%	0.6%
All Other Transportation and Material Moving Occupations (Avg. All Categories)	$37,300	9.7%	0.6%
Weighted Mean Annual Wage	***$31,500***	**100.0%**	**6.2%**
Weighted Average Annual Wage - All Occupations	***$80,000***		93.8%

[1] Including occupations representing 4% or more of the major occupation group.

[2] The methodology utilized by the California Employment Development Department (EDD) assumes that hourly paid employees are employed full-time. Annual compensation is calculated by EDD by multiplying hourly wages by 40 hours per work week by 52 weeks.

[3] Occupation percentages are based on the 2014 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on the 2014 Occupational Employment Survey data applicable to Santa Clara County, updated by the California Employment Development Department to 2015 wage levels.

Sources: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc.
Filename: Appendix C Campbell; LIndustrial Compensation; 8/26/2016; dd

APPENDIX C TABLE 11
2014 NATIONAL WAREHOUSE WORKER DISTRIBUTION BY OCCUPATION
JOBS HOUSING NEXUS MODEL
CAMPBELL, CA

Major Occupations (2% or more)	2014 National Warehouse Industry Occupation Distribution	
Management Occupations	25,100	*3.5%*
Business and Financial Operations Occupations	14,700	*2.0%*
Office and Administrative Support Occupations	161,880	*22.3%*
Installation, Maintenance, and Repair Occupations	23,190	*3.2%*
Production Occupations	29,150	*4.0%*
Transportation and Material Moving Occupations	438,040	*60.3%*
All Other Warehouse Occupations	34,030	*4.7%*
INDUSTRY TOTAL	726,090	100.0%

Source: Bureau of Labor Statistics;
Prepared by: Keyser Marston Associates, Inc.
Filename: Appendix C Campbell; Wareh Major Occupations Matrix; 8/26/2016; dd

APPENDIX C TABLE 12
AVERAGE ANNUAL COMPENSATION, 2015
WAREHOUSE WORKER OCCUPATIONS
JOBS HOUSING NEXUS MODEL
CAMPBELL, CA

Occupation [1]	2015 Avg. Compensation [2]	% of Total Occupation Group [3]	% of Total Warehouse Workers
Page 1 of 2			
Management Occupations			
General and Operations Managers	$157,600	37.2%	1.3%
Sales Managers	$167,900	4.9%	0.2%
Administrative Services Managers	$122,400	5.3%	0.2%
Transportation, Storage, and Distribution Managers	$118,800	36.1%	1.2%
All Other Management Occupations (Avg. All Categories)	$162,300	16.6%	0.6%
Weighted Mean Annual Wage	***$143,000***	**100.0%**	**3.5%**
Business and Financial Operations Occupations			
Wholesale and Retail Buyers, Except Farm Products	$66,100	9.9%	0.2%
Purchasing Agents, Except Wholesale, Retail, and Farm Products	$81,100	7.7%	0.2%
Human Resources Specialists	$89,400	12.2%	0.2%
Logisticians	$99,600	15.2%	0.3%
Training and Development Specialists	$95,300	9.1%	0.2%
Market Research Analysts and Marketing Specialists	$110,200	5.3%	0.1%
Business Operations Specialists, All Other	$98,100	18.9%	0.4%
Accountants and Auditors	$94,200	10.0%	0.2%
All Other Business and Financial Operations (Avg. All Categories)	$96,400	11.8%	0.2%
Weighted Mean Annual Wage	***$92,600***	**100.0%**	**2.0%**
Office and Administrative Support Occupations			
First-Line Supervisors of Office and Administrative Support Workers	$70,600	5.4%	1.2%
Customer Service Representatives	$48,200	8.5%	1.9%
Shipping, Receiving, and Traffic Clerks	$36,500	21.2%	4.7%
Stock Clerks and Order Fillers	$31,300	34.5%	7.7%
Office Clerks, General	$40,900	6.0%	1.3%
All Other Office and Administrative Support Occupations (Avg. All Categories)	$48,100	24.3%	5.4%
Weighted Mean Annual Wage	***$40,600***	**100.0%**	**22.3%**

Sources: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc.
Filename: Appendix C Campbell; WareH Compensation; 8/26/2016; dd

Occupation [1]	2015 Avg. Compensation [2]		% of Total Occupation Group [3]	% of Total Warehouse Workers
Page 2 of 2				
Installation, Maintenance, and Repair Occupations				
First-Line Supervisors of Mechanics, Installers, and Repairers	$80,600		9.1%	0.3%
Bus and Truck Mechanics and Diesel Engine Specialists	$58,600		7.7%	0.2%
Maintenance and Repair Workers, General	$47,300		61.6%	2.0%
All Other Installation, Maintenance, and Repair Occupations (Avg. All Categories)	$55,900		21.6%	0.7%
Weighted Mean Annual Wage	***$53,100***		**100.0%**	**3.2%**
Production Occupations				
First-Line Supervisors of Production and Operating Workers	$68,400		8.3%	0.3%
Team Assemblers	$35,200		19.1%	0.8%
Inspectors, Testers, Sorters, Samplers, and Weighers	$47,000		21.9%	0.9%
Packaging and Filling Machine Operators and Tenders	$29,200		17.1%	0.7%
Helpers--Production Workers	$26,800		9.8%	0.4%
All Other Production Occupations (Avg. All Categories)	$40,800		23.8%	1.0%
Weighted Mean Annual Wage	***$40,000***		**100.0%**	**4.0%**
Transportation and Material Moving Occupations				
First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	$53,500		4.9%	2.9%
Heavy and Tractor-Trailer Truck Drivers	$47,200		8.1%	4.9%
Industrial Truck and Tractor Operators	$38,500		21.0%	12.7%
Laborers and Freight, Stock, and Material Movers, Hand	$31,700		42.8%	25.8%
Machine Feeders and Offbearers	$31,400	[4]	5.4%	3.2%
Packers and Packagers, Hand	$25,300		10.4%	6.3%
All Other Transportation and Material Moving Occupations (Avg. All Categories)	$37,300		7.4%	4.5%
Weighted Mean Annual Wage	***$35,200***		**100.0%**	**60.3%**
Weighted Average Annual Wage - All Occupations	***$42,000***			95.3%

[1] Including occupations representing 4% or more of the major occupation group.

[2] The methodology utilized by the Bureau of Labor Statistics Occupational Employment Survey assumes that hourly paid employees are employed full-time. Annual compensation is calculated by multiplying hourly wages by 40 hours per work week by 52 weeks.

[3] Occupation percentages are based on the 2014 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on the 2014 Occupational Employment Survey data applicable to Santa Clara County.

[4] Wage data not available for Santa Clara County; wages estimated based on Alameda County wages for that occupation.

Sources: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc.
Filename: Appendix C Campbell; WareH Compensation; 8/26/2016; dd