

# Residential Impact Fee Nexus Study

September 2015

*prepared for:*  
Town of Colma



**VWA**

Vernazza Wolfe Associates, Inc.

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# I. EXECUTIVE SUMMARY

## INTRODUCTION

This report is part of the 21 Elements multi-city nexus study, a collaborative effort to mitigate the impacts of new development on the demand for affordable housing in San Mateo County. In February 2014, the local jurisdictions in San Mateo County partnered to hire Strategic Economics and Vernazza Wolfe Associates, Inc. to develop nexus studies for commercial linkage fees and residential impact fees.<sup>1</sup> The project was initiated by 21 Elements, a countywide collaboration among all the cities in San Mateo County on housing issues. The preparation of these fee studies may result in the adoption of new impact fees on either residential, commercial or both types of developments. This report describes the methodology, data sources, and analytical steps required for the nexus analysis.

## BACKGROUND

Colma is potentially interested in adopting an affordable housing impact fee on new residential development. The purpose of this fee would be to mitigate the impact of an increase in affordable housing demand from new worker households associated with new market-rate residential units. When a city or county adopts a development impact fee, it must establish a reasonable relationship or connection between the development project and the fee that is charged. Studies undertaken to demonstrate this connection are called nexus studies. This nexus study quantifies the connection between the development of market rate housing and the demand for affordable housing units.

This residential nexus study measures the income and spending generated by the new market rate households renting or buying new units in Colma. This new consumption is then translated into new induced job growth. These induced jobs will be at various wage rates; many will be at lower wages, for example in the retail and personal services sectors. Since low-wage households cannot reasonably afford to pay for market rate rental and for-sale housing in Colma, a housing impact fee can be justified to bridge the difference between what these new households can afford to pay and the cost of developing modest housing units to accommodate them.

## REPORT ORGANIZATION

This executive summary provides an overview of the housing nexus analysis methodology and results. The subsequent chapters of the report contain more detailed information regarding the methodology, data sources, and the steps of the analysis. The report is organized into seven sections and a glossary of terms. Following this executive summary, Section II provides an introduction to the purpose of the study, and an overview of the methodology. Section III presents the residential prototypes used in the analysis. Section IV describes the methodology and results of the IMPLAN economic impact analysis. Section V covers the housing affordability gap analysis. Section VI presents the maximum fee calculation based on the nexus analysis and affordability gap results. The final section, Section VII, discusses financial feasibility and other policy considerations that jurisdictions typically weigh before implementing a nexus fee.

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<sup>1</sup> Participating jurisdictions include: Atherton, Belmont, Brisbane, Burlingame, Colma, Daly City, East Palo Alto, Foster City, Half Moon Bay, Hillsborough, Menlo Park, Millbrae, Pacifica, Portola Valley, Redwood City, San Bruno, San Carlos, San Mateo City, San Mateo County, South San Francisco, and Woodside.

## NEXUS ANALYSIS RESULTS

This section describes the steps taken to calculate the nexus-based fee amount per housing unit. More detail on each step can be found in other sections of this report.

### **Prototypes**

The first step in the nexus analysis is developing residential housing prototypes. The prototypes establish the types of market rate housing development that are occurring or are expected to occur in the Town that could potentially be subject to the affordable housing impact fee. The fees calculated in this nexus study are only applicable to the housing prototypes defined in this analysis.

Based on historical development trends, market data, broker interviews, and input from Town staff, the Consultant Team constructed three housing prototypes that represent the type of development that is likely to occur in Colma: for-sale single-family detached units, for-sale condominiums and rental apartments. These development prototypes are not intended to represent specific development projects; rather, they are designed to illustrate the type of projects that are likely to be built in Colma in the near future. Figure I-1 provides information on the unit type and size, as well as estimated sales prices and average monthly rents for each prototype.

Figure I-1. Sales Prices and Rental Rates of Residential Prototypes

Prototype	Unit Type	Number of Units	Net Area (SF)	Unit Sales Price/ Monthly Rent	Price or Rent per SF
<b>Single-Family Detached (For-Sale)</b>					
Wood siding wood frame	4 BD/2.5 BA	10	2,800	\$1,075,000	\$384
7 units per acre					
Attached garage					
Net Residential Area (Net SF)			28,000		
<b>Condominiums (For-Sale)</b>					
Type V wood frame	1 BD/1 BA	4	900	\$406,000	\$451
50 units per acre	2 BD/2 BA	6	1,200	\$489,000	\$408
Subterranean parking	3 BD/2 BA	2	1,400	\$550,000	\$393
	3 BD/2.5 BA	3	1,700	\$688,000	\$405
Net Residential Area (Net SF)			18,700		
Average Net SF per Unit			1,247		
<b>Apartments (Rental)</b>					
Type V wood frame	1 BD/1 BA	20	900	\$2,900	\$3.22
32 units per acre	2 BD/2 BA	20	1,200	\$3,300	\$2.75
Podium parking	3 BD/2 BA	20	1,600	\$4,100	\$2.56
Net Residential Area (Net SF)			74,000		
Average Net SF per Unit			1,233		

Sources: Strategic Economics & Vernazza Wolfe Associates, Inc., 2014.

## Household Income

The next step is to calculate the annual household incomes of the buyers and the renters occupying new units by using the sales prices and rents shown in Figure I-1. Threshold incomes needed to purchase or rent units are based on standards used in the housing industry.<sup>2</sup> Figures I-2, I-3, and I-4 show the estimated household income of buyers of single-family detached units, buyers of condominium units, and renters of apartment units, respectively. Household incomes are a key input to the IMPLAN3 economic impact analysis described in Section IV of this report.

<sup>2</sup> These standards are presented in Section III of this report.

Figure I-2. Estimated Annual Household Incomes of Buyers of Single-Family Detached Units

<b>Single-Family Detached Unit Type</b>	
<b>4 BD/2.5 BA</b>	
Number of Households	10
Sales Price	\$1,075,000
Household Income	\$189,851

Source: Applied Development Economics, Inc., 2015; Strategic Economics & Vernazza Wolfe Associates, Inc. 2015.

Figure I-3. Estimated Annual Household Incomes of Buyers of Condominium Units

<b>Condominium Unit Type</b>				
	<b>1 BD/1 BA</b>	<b>2 BD/2 BA</b>	<b>3 BD/2 BA</b>	<b>3 BD/2.5 BA</b>
Number of Households	4	6	2	3
Sales Price	\$406,000	\$489,000	\$550,000	\$688,000
Household Income	\$87,130	\$101,789	\$112,562	\$136,933

Source: Applied Development Economics, Inc., 2015; Strategic Economics & Vernazza Wolfe Associates, Inc. 2015.

Figure I-4. Estimated Annual Household Incomes of Renters of Apartment Units

<b>Apartment Unit Type</b>			
	<b>1 BD/1 BA</b>	<b>2 BD/2 BA</b>	<b>3 BD/2 BA</b>
Number of Households	20	20	20
Monthly Rent	\$2,900	\$3,300	\$4,100
Household Income	\$116,000	\$132,000	\$164,000

Source: Applied Development Economics, Inc., 2015; Strategic Economics & Vernazza Wolfe Associates, Inc. 2015.

## Economic Impact Analysis (IMPLAN)

The next step is to determine employment and wage impacts of each prototype based on the incomes of the occupants of new housing units. The buyers and renters of the new market-rate single-family detached units, condominiums, and apartments create new spending in the local economy. These new expenditures can be linked to new jobs, many of which pay low wages. The job and wage impacts related to new market-rate housing units are measured using IMPLAN3, an economic impact analysis tool. An economics consulting firm, Applied Development Economics (ADE) undertook the IMPLAN3 analysis.

The results of the IMPLAN analysis indicate that many of the induced jobs generated within San Mateo County are in low-wage sectors like retail and food services (restaurants). However, a significant proportion of induced jobs are also in higher-paying resident-serving categories such as health care and government.

## Demand for Affordable Housing

Recognizing that many households have more than one wage-earner, the next step is to calculate the number of worker households by dividing the total number of new workers by the average number of wage-earners per household in Colma. However, not all of the worker households require affordable housing. To estimate the affordable housing demand, the average annual household income of worker households is sorted into income categories that are consistent with area median income (AMI) levels defined for San Mateo County and is specific to the average household size in the jurisdiction. Figure I-5 indicates that of the 3.3 new worker households associated with a single-family detached



development, there are 1.8 households that need affordable housing. The comparable figures for condominium and apartment developments are 2.0 and 9.3 households.

*Figure I-5. New Worker Households by Income Group for Single-Family Detached, Condominium and Apartment Prototypes*

<b>Worker Households by Income Category</b>	<b>Single-Family Detached</b>	<b>Condominium</b>	<b>Apartment</b>
Households Requiring Affordable Housing			
Very Low Income (<=50% AMI)	0.0	0.0	0.0
Low Income (51-80% AMI)	0.8	1.0	4.6
Moderate Income (81-120% AMI)	1.8	2.0	9.3
Subtotal Very Low, Low, Moderate Income	2.6	3.0	13.9
Above Moderate Income Households	0.7	0.7	3.4
Total All Worker Households	3.3	3.8	17.3

Source: Applied Development Economics, Inc., 2015; Strategic Economics & Vernazza Wolfe Associates, Inc. 2015.

## Affordability Gap

The next step is to quantify the total gap between what very low, low, and moderate income households can afford to pay and the cost of building new, modest rental and for-sale housing units. This housing “affordability gap” number is then multiplied by the number of income-qualified households in each income category for single-family detached, condominium and apartment developments separately in order to estimate the total housing affordability gap for each prototype. Figures I-6 through I-8 present these totals for single-family detached, condominiums and apartments.

*Figure I-6. Total Affordability Gap for Single-Family Detached*

<b>Income Level</b>	<b>Households Requiring Affordable Housing</b>	<b>Average Affordability Gap per Household</b>	<b>Affordability Gap for All Households</b>
Very Low-Income (<50% AMI)	0.0	\$280,783	\$0
Low-Income (50-80% AMI)	0.8	\$240,477	\$200,637
Moderate-Income (80-120% AMI)	1.8	\$175,558	\$314,674
Total	2.6		\$515,311

Sources: Vernazza Wolfe Associates, Inc.; Strategic Economics, 2014.

*Figure I-7. Total Affordability Gap for Condominiums*

<b>Income Level</b>	<b>Households Requiring Affordable Housing</b>	<b>Average Affordability Gap per Household</b>	<b>Affordability Gap for All Households</b>
Very Low-Income (<50% AMI)	0.0	\$280,783	\$0
Low-Income (50-80% AMI)	1.0	\$240,477	\$243,949
Moderate-Income (80-120% AMI)	2.0	\$175,558	\$354,162
Total	3.0		\$598,111

Sources: Vernazza Wolfe Associates, Inc.; Strategic Economics, 2014.

Figure I-8. Total Affordability Gap for Apartments

Income Level	Households Requiring Affordable Housing	Average Affordability Gap per Household	Affordability Gap for All Households
Very Low-Income (<50% AMI)	0.0	\$280,783	\$0
Low-Income (50-80% AMI)	4.6	\$240,477	\$1,095,130
Moderate-Income (80-120% AMI)	9.3	\$175,558	\$1,635,348
Total	13.9		\$2,730,478

Sources: Vernazza Wolfe Associates, Inc.; Strategic Economics, 2014.

## Maximum Nexus-Based Fee

The final step in calculating the maximum housing impact fee by prototype is to divide the total gap at each income level by the number of units in each prototype (Figure I-9). This maximum fee amount represents the ceiling on the fee that could be charged to mitigate affordable housing impacts from new residential development.

**The maximum single-family detached impact fee per unit is \$51,531, the maximum condominium impact fee per unit is \$39,874, and the maximum apartment fee per unit is \$45,508.** The fees are also calculated on a per-square-foot basis by dividing the unit fee by the average size of the unit. **On a per-square-foot basis, the maximum impact fee is \$18 for single-family detached, \$32 for condominiums and \$37 for apartments.**

Figure I-9. Maximum Housing Impact Fee by Prototype

Prototype	Single-Family Detached	Condominiums	Apartments
Total Number of Units	10	15	60
Average Unit Size	2,800	1,247	1,233
Total Affordability Gap	\$515,311	\$598,111	\$2,730,478
Maximum Fee per Unit	\$51,531	\$39,874	\$45,508
Maximum Fee per SF	\$18	\$32	\$37

Sources: Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

## POLICY CONSIDERATIONS

There are a number of policy considerations that can be taken into account when jurisdictions consider adopting an affordable housing impact fee on new market-rate development. These may include factors such as: the likely financial impact of the proposed housing impact fees on development; the additional cost of the new fees on the existing Town fee structure; a comparison of the fee scenarios to existing housing impact fees in nearby cities; the role of the fee in the Town's overall strategy for affordable housing implementation; and the potential overlap with a commercial linkage fee. This section provides a discussion of each of these policy questions for Colma.

**Comparison to Neighboring Jurisdictions** – A comparison of the nexus fee scenarios to current housing impact fees charged in nearby cities is an important element of the policy analysis. This comparison is challenging, because most cities in San Mateo County are participating in this multi-city nexus study, and may decide to adopt new fees or update existing fees. Based on the most current information available, existing impact fees in San Mateo and Santa Clara Counties for single-family detached units range from \$14 per square foot to approximately \$44 a square foot. Fees on rental projects range from \$15 to \$44. Fees on condominiums range from \$20 to \$44 per square foot.

Figure I-10. Housing Impact Fees in Neighboring Cities

City	Single-Family Detached	Single-Family Attached	Condominiums	Apartments
Cupertino	\$15	\$17	\$20	\$25
Daly City	\$14	\$18	\$22	\$25
East Palo Alto	\$24	\$23	\$23-\$44	\$23
Mountain View	N/A	N/A	N/A	\$15
San Carlos	\$24-44	\$21-\$42	\$21-\$42	\$24-\$44
San Jose	N/A	N/A	N/A	\$17
Sunnyvale	N/A	N/A	N/A	\$17

Sources: Baird + Driskell; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

**Financial Feasibility** – Financial feasibility is just one of several factors to consider in making a decision regarding a potential nexus fee. In order to provide Colma with guidance on how proposed fees could impact development decisions, the Consultant Team conducted a pro forma analysis that tested the financial impact of four fee scenarios for the three prototypes. Under current market conditions, the single-family detached prototype can support the maximum nexus-based fee of \$18 per square foot. However, the maximum residential impact fees are not financially feasible for the condominium and apartment prototypes. Because the financial feasibility results may change over time depending on market conditions, the analysis assessed the financial feasibility of the residential impact fee scenarios for condominiums and apartments with 2014 rents and prices (which the nexus analysis is based on), and with increased rents and sales prices. According to the analysis, a ten percent increase in condominium sales prices would allow a fee of \$10 per square foot to be feasible (Figure I-11). For apartments, an increase in rental rates of five percent would allow a fee of \$15 per square foot to be feasible, while a 10 percent increase in rental rates would make the maximum fee of \$37 per square foot financially feasible.

Figure I-11: Financial Feasibility Results with Increased Prices and Rents for Condominium and Apartment Prototypes

Revenue Scenario	Condominiums	Apartments
2014 Rents/Prices	\$0	\$10
5% Increase in Rents/ Prices	\$0	\$15
10% Increase in Rents/ Prices	\$10	\$37 (maximum)

Sources: Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

**Total Development Costs** – Currently, the total development costs (including building and onsite improvements, parking, indirect costs, financing costs, and developer profit) are \$228 for the single-family detached prototype, \$389 per net square foot for the condominium prototype and \$340 per net square foot for the apartment prototype. When land costs are added to the project’s development costs, costs increase to between \$263 and \$303 per net square foot for the single-family detached prototype (depending on the land price of the site), between \$464 and \$564 per net square foot for the condominium prototype and between \$415 and \$515 per net square foot for the apartment prototype. The maximum housing impact fee represents 7.5 percent, 8.2 percent and 9.8 percent of total development cost of the single-family detached, condominium and apartment prototypes, respectively (Figure I-12). A fee of \$10 per square foot for single-family attached units represents 4.2 percent of total development costs. A fee of \$15 per square foot for condominiums and apartments would represent 3.9 and 4.2 percent of total development costs, respectively.

**Comparison to Existing Fees** – The Town of Colma has existing permits and fees on new development that would increase with the adoption of a new housing impact fee. The Town may wish to consider the amount that total fees would increase with the addition of a new housing impact fee. Based on the current schedule of fees in Colma, existing fees (excluding the nexus fees) for the residential prototypes are estimated to be \$20 per square foot for single-family detached units (\$55,595 per unit), \$37 per square foot for condominiums (\$46,277 per unit) and \$13 per square foot for rental apartments (\$15,911 per unit).<sup>3</sup> The maximum residential impact fee would increase total fees by 200 to 400 percent, depending on the prototype, as shown in Figure I-13. The maximum residential impact fee of \$18 per square foot for single-family detached units increases the total permits and fees to \$38 per square foot for single-family detached units. The maximum fee levels for condominiums and apartments would increase total fees to \$69 per square foot and \$50 per square foot, respectively. The lowest fee scenarios of \$5 per square foot for all prototypes increase total fees to \$25, \$42 and \$18 per square foot for the single-family detached, condominium and apartment prototypes, respectively.

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<sup>3</sup> The fee estimates presented above represent the best approximations available from the Town of Colma.

Figure I-12: Housing Impact Fee Scenarios as Percent of Development Costs

Residential Impact Fee Scenario	Single-Family Detached		Condominiums		Apartments	
	Fee Amount	Fee as % of TDC	Fee Amount	Fee as % of TDC	Fee Amount	Fee as % of TDC
No Fee	\$0	0.00%	\$0	0.00%	\$0	0.00%
Scenario 1: Max Fee	\$18	7.47%	\$32	8.23%	\$37	9.78%
Scenario 2	\$10	4.20%	\$15	3.86%	\$15	4.22%
Scenario 3	\$7	2.98%	\$10	2.57%	\$10	2.86%
Scenario 4	\$5	2.14%	\$5	1.29%	\$5	1.45%

Sources: Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

Figure I-13: Total Fees and Permits per Square Foot

Fee Scenario	Single-Family Detached		Condominiums		Apartments	
	Residential Impact Fee	Total Permits and Fees	Residential Impact Fee	Total Permits and Fees	Residential Impact Fee	Total Permits and Fees
Existing Permits and Fees	\$0	\$20	\$0	\$37	\$0	\$13
Scenario 1 (Maximum Fee)	\$18	\$38	\$32	\$69	\$37	\$50
Scenario 2	\$10	\$30	\$15	\$52	\$15	\$28
Scenario 3	\$7	\$27	\$10	\$47	\$10	\$23
Scenario 4	\$5	\$25	\$5	\$42	\$5	\$18

Sources: Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

**Role of Fee in Colma's Overall Housing Strategy** – Colma does not currently have a residential impact fee program or commercial linkage fee program. Colma adopted an inclusionary zoning ordinance in 2006, but it has not yet been implemented due to the lack of new housing construction during the economic recession. Colma's inclusionary zoning ordinance requires that new residential development of five units or more restrict at least 20 percent of the total units for occupancy by lower income households. It is the Town's preference for units to be built on-site. However, for projects between five and 11 units, developers have the option of paying an in-lieu fee.

If Colma adopts a new residential impact fee, the revenues could be used either to create a new town-wide fund or could be contributed to a countywide fund, such as HEART. The existence of additional local revenue sources such as the residential impact fees can help make certain projects more competitive for outside funding. Revenues generated from a residential impact fee must be spent on housing that benefits the workforce, since the funds stem from affordable housing impacts related to new employment. Furthermore, the funds must target very low, low, and moderate income households, the income groups that are included in this nexus study.

The revenues to be collected from a residential impact fee provide an important source of local funding; however, fee revenues do not generally cover the entire funding gap encountered by sponsors of new affordable housing. Additional funding from a variety of sources will remain critical. These funding sources typically include public subsidies from San Mateo County, equity from the Low Income Housing Tax Credits, and financing from conventional lenders.

**Overlap with Commercial Linkage Fees** – In addition to the housing impact fee described in this report, the Town of Colma is also considering implementing new commercial linkage fees on non-residential development. There may be a small share of jobs counted in the commercial linkage fee analysis that are also included in this residential nexus analysis. Thus, the two programs may have some overlap in mitigating the affordable housing demand from the same worker households. In order to reduce the potential for overlap between the two programs, it is advisable to set both the commercial linkage fees and housing impact fees at below 100 percent of the nexus-based maximum. In this way, when combined, the programs would mitigate less than 100 percent of the impact even if there were overlap in the jobs counted in the two nexus analyses.

## II. INTRODUCTION AND METHODOLOGY

Colma is considering a housing impact fee on new residential development. The purpose of this fee would be to mitigate the impact of an increase in demand for affordable housing due to employment growth associated with potential new residential development. When a city or county adopts a development impact fee, it must establish a reasonable relationship or connection between the development project and the impacts for which the fee is charged. Studies undertaken to demonstrate this connection are called nexus studies. Nexus studies for school impact fees, traffic mitigation fees, and park fees are common. For housing impact fees, a methodology exists that establishes a connection between the development of market rate housing and the need to expand the supply of affordable housing. This study is based on this methodology.

The approach for this nexus study is to estimate the number of new workers that will be required to provide goods and services to the market rate households that are occupying new units in Colma. Although growth in employment will provide jobs at various wage rates, many of the new jobs will be at low-wage rates in retail trade and services, consistent with job patterns in the County. Since low-wage households cannot reasonably afford to pay for market rate rental and for-sale housing in Colma, a housing impact fee can bridge the difference between what these new households can afford to pay and the costs of developing new housing units for them.

New market rate housing units in Colma create a need for low-wage employees to provide goods and services to residents of the new units. If new market rate housing were not built, there would not be an increase in employment nor the accompanying demand for affordable housing from these new workers. Because housing impact fees are directly related to employment growth, the revenues collected from these fees needs to be spent on workforce housing and not on housing for households that do not participate in the labor force, such as retired seniors, unemployed homeless, and full-time student populations.

### BACKGROUND

Cities and counties in California have operated inclusionary zoning programs to increase the supply of affordable housing since the 1970s. An inclusionary program requires that builders of new residential projects provide a specified percentage of units, either on-site or off-site, at affordable prices. Some programs have also allowed developers the option of paying fees “in lieu” of providing inclusionary units.

Inclusionary zoning policies have usually been established based on the police power of cities and counties to enact legislation benefitting public health, safety, and welfare. In its recent decision on *California Building Industry Ass’n v. City of San Jose*, the California Supreme Court upheld this power of cities, finding that the objective of increasing affordable housing supply in economically diverse developments was “unquestionably” permitted by the U.S. Constitution.

However, in 2009, in *Palmer/Sixth Street Properties, L.P. v. City of Los Angeles*, the Court of Appeal held that inclusionary *rental* requirements violate the Costa Hawkins Rental Housing Act, which allows landlords to determine the rents of all new units. Affordable rental housing may still be required if a developer agrees by contract to do so, in exchange for financial assistance or regulatory incentives. However, in the absence of these incentives, restricted rents cannot be *required* of a developer. Consequently, communities have completed nexus studies and imposed rental housing impact fees to mitigate the impact of market-rate rental housing on the need for affordable housing. Although a nexus analysis is not required to adopt inclusionary ordinances and in-lieu fees on for-sale housing, conducting a nexus study provides additional support for these requirements.

The nexus analyses presented in this study are designed to define an upper limit for a housing impact fee to be charged on new rental and for-sale housing to mitigate impacts on affordable housing needs. The maximum fee is not necessarily the recommended fee. Subsequent sections of this report address additional policy considerations to consider when adopting housing impact fees.

## THE NEXUS CONCEPT

In a balanced housing market, the development of new market rate housing results in population growth. Residents purchasing and renting these new units now spend money in the Town. For example, they go out to eat in local restaurants, shop for food and clothing in local stores, and patronize other local businesses, such as hair salons, dry cleaners, and dental offices. This local spending results in the need to hire new workers to respond to the increased demand for goods and services. A nexus study establishes the connection between the households that purchase new housing units (or rent newly constructed rental units) and the number of new workers that will be hired by local businesses to serve the needs of new residents.

Growth in employment will provide jobs at various wage rates. While some jobs will pay salaries that will allow new workers to rent or purchase market rate housing, many new jobs will also be at lower wages. Since low-wage households cannot reasonably afford to pay for market rate rental and for-sale housing in Colma, a housing impact fee addresses the demand for affordable housing.

## METHODOLOGY

The first step of the nexus analysis is to estimate the market prices or rents of new housing units. Based on these prices or rents, gross household incomes of buyers and renters are calculated. The gross household incomes of buyers and renters are then translated into direct economic impacts (new spending on retail goods and personal services), and induced impacts (new jobs and wage income) using the IMPLAN3 model. The IMPLAN3 analysis provides information on likely incomes of new workers. These incomes can then be used to estimate the demand for affordable housing from new worker households, and the costs of providing these affordable units.

Each step of the nexus analysis is described in greater detail below.

### **Step 1. Define the residential prototypes that represent new market rate housing development.**

Based on a review of recent development trends, pipeline projects, and market data for the Town and county, the residential prototypes are defined. The prototypes represent typical new market-rate development projects likely to occur in the Town. The prototype definitions include information on the building characteristics, net residential area, unit mix and sizes, and sales prices or rents.

### **Step 2. Estimate household income of buyers and renters of new market rate units.**

The average gross household income required to purchase or rent new market rate units is estimated based on the market value or rents of new units. For ownership units, the calculation assumes typical mortgage terms and assumes that buyers spend 35 percent of their gross incomes on housing costs. For rental units, it is assumed that renter households spend 30 percent of their gross incomes on housing.

### **Step 3. Estimate economic impacts of new buyers and renters using IMPLAN3.**

The IMPLAN3 model uses Bureau of Labor Statistics Consumer Expenditure Survey data to model the spending patterns of different income groups. The model estimates the increase in expenditures from new households, the number of new (induced) workers related to new households, and the occupations and wages of these new workers.



**Step 4. Estimate the number of new worker households and annual household incomes.**

The number of new induced workers from the IMPLAN3 analysis is divided by the average number of workers per household in the Town (defined by the U.S. Census Bureau) to calculate the total number of worker households associated with each housing prototype. The average worker's wage calculated in the IMPLAN3 analysis is multiplied by the number of workers per household in the Town to derive gross household income. This step assumes that the all wage-earners in a household have the same income.

**Step 5. Estimate the demand for affordable housing from new worker households.**

Based on the calculation of new worker household income, the worker households are categorized by target income group (very low income, low income, moderate income, and above moderate income). Worker households with above-moderate incomes are removed from the nexus analysis, because they would not require affordable housing.

**Step 6. Estimate the affordability gap of new households requiring affordable housing.**

The affordability gap represents the difference between what households can afford to pay for housing and the development cost of a modest housing unit. For very low and low income households, a rental housing gap is used. For moderate income households, the housing affordability gap is calculated separately for renter and owner households, and then the two gaps are combined to derive an average affordability gap for moderate income households.

**Step 7. Estimate nexus-based fees for each prototype.**

The number of new households requiring affordable housing is multiplied by the average affordability gap per household to estimate the total affordability gap for each prototype. The maximum per-unit and per-square foot fees are then calculated by dividing the aggregate affordability gap by the number of units or net residential area in each prototype.

### III. RESIDENTIAL PROTOTYPES

The first step in the nexus analysis is developing residential housing prototypes. The residential prototypes establish the types of residential development that are occurring or are expected to occur in the Town and could potentially be subject to the affordable housing impact fee. The housing prototypes are not intended to represent specific development projects; rather, they are designed to illustrate the type of projects that are likely to be built in Colma in the near future. The fees calculated in this nexus study are only applicable to the housing prototypes defined in this analysis.

Based on estimated sales prices and rents of new market-rate units, the household incomes of buyers and renters of new units are estimated. This section of the report describes the methodology for establishing the prototypes and calculating the household incomes of buyers and renters of new market-rate units in Colma. The estimated household incomes are then used as inputs to the IMPLAN3 analysis to estimate the employment impacts of the market-rate households, which is described in more detail in Section IV of this report.

#### RECENT HOUSING DEVELOPMENT TRENDS

In order to ensure that the prototypes accurately reflect current market conditions, the Consultant Team analyzed recently built market rate housing development projects in neighboring cities comparable to Colma. The Town anticipates single-family detached, condominium and apartment development in the future, for which prototypes were constructed.

Figure III-1 summarizes the market data for recently built single-family detached units in San Bruno. The table shows that units sold, on average, for approximately \$864,000, and had an average size of approximately 2,200 square feet. Figure III-2 presents a summary of recent condominium projects in South San Francisco: unit sizes range from 670 to 1,310 square feet depending on unit type, and average price range between \$300,000 and \$420,000. Similarly, as Colma has not seen recent apartment development, the Consultant Team used market data from other cities (Daly City, Millbrae, San Bruno, and South San Francisco) to construct an apartment prototype. As shown in Figure III-3, average asking monthly rents ranged from \$2,800 to \$4,200, depending on unit type.

#### COLMA RESIDENTIAL PROTOTYPES

Based on historical development trends, market data, broker interviews, and input from Town staff, the Consultant Team constructed three housing prototypes that represent the type of development that is likely to occur in Colma. These development prototypes are not intended to represent specific development projects; rather, they are designed to illustrate the type of projects that are likely to be built in Colma in the near future. The prototypes, as shown in Figure III-4, provide information on the building type, number of units, average size by unit type, and average monthly rents or sales prices by unit type.

##### **For-Sale Single-Family Detached Units**

The for-sale single-family detached prototype is a wood siding wood-frame building with an attached garage and a net residential area of 28,600 square feet. The estimated density is 7 units per acre. This building type is representative of recently built single-family detached units in the nearby city of San Bruno, and of potential development in Colma. The single-family detached prototype units have four-bedrooms of 2,800 square feet, based on the size of proposed development in Colma. To estimate the average unit sale price, the Consultant Team applied a price per square foot based on San Bruno's

recent single-family detached sales (Figure III-1) to the prototype's average size of 2,800 square feet. The average sale price for single-family detached units is then \$1,075,000.

### **For-Sale Condominiums**

The for-sale condominium prototype is a Type V wood-frame building with an underground parking garage and net residential area of 18,700 square feet. The estimated average density is 50 units per acre. This building type is representative of recently built condominium projects in the neighboring and comparable market of South San Francisco, and approximate potential future development in Colma. The condominium mix is composed of one-, two- and three-bedroom units of different sizes, ranging from 900 square feet to 1,700 square feet. The average estimated price of newly built condominiums ranges from \$406,000 to \$688,000, depending on unit size and number of bedrooms.

### **Rental Apartments**

The rental apartment prototype is a Type V wood-frame building with podium parking and net residential area of 74,000 square feet. The estimated density is 32 units per acre. This prototype is representative of recent market-rate apartment development in Daly City, Millbrae, San Bruno and South San Francisco, and represents potential future development in Colma. The apartment unit mix consists of one-, two and three-bedroom units in equal parts. Estimated monthly rents range from \$2,900 to \$4,100 per unit, depending on unit size and number of bedrooms.

Figure III-1. Sales of Recently Built Single-Family Detached Units in San Bruno

Address	City	Year Built	Beds	Square Feet	Sale Amount	Price per SF
370 Merimont Cir	San Bruno	2008	4	2,282	\$830,000	\$364
368 Merimont Cir	San Bruno	2008	3	2,092	\$900,000	\$430
366 Merimont Cir	San Bruno	2008	4	2,177	\$905,000	\$416
362 Merimont Cir	San Bruno	2008	4	2,170	\$838,000	\$386
360 Merimont Cir	San Bruno	2008	3	1,785	\$770,000	\$431
351 Merimont Cir	San Bruno	2008	4	2,282	\$893,000	\$391
349 Merimont Cir	San Bruno	2008	3	2,092	\$845,000	\$404
107 Alden Ct	San Bruno	2008	3	2,094	\$829,000	\$396
207 Marbella Ln	San Bruno	2008	3	2,094	\$850,000	\$406
213 Marbella Ln	San Bruno	2008	3	1,785	\$799,000	\$448
347 Merimont Cir	San Bruno	2008	4	2,177	\$872,000	\$401
345 Merimont Cir	San Bruno	2008	4	2,282	\$870,000	\$381
343 Merimont Cir	San Bruno	2008	4	2,170	\$865,000	\$399
804 Skycrest Dr	San Bruno	2008	4	2,289	\$820,000	\$358
806 Skycrest Dr	San Bruno	2008	4	2,323	\$875,000	\$377
812 Skycrest Dr	San Bruno	2008	4	2,289	\$863,000	\$377
810 Skycrest Dr	San Bruno	2008	4	2,323	\$980,000	\$422
807 Skycrest Dr	San Bruno	2008	4	2,289	\$875,000	\$382
809 Skycrest Dr	San Bruno	2008	4	2,323	\$990,000	\$426
805 Skycrest Dr	San Bruno	2008	4	2,323	\$863,000	\$372
811 Skycrest Dr	San Bruno	2008	4	2,289	\$885,000	\$387
815 Skycrest Dr	San Bruno	2008	4	2,269	\$865,000	\$381
341 Merimont Cir	San Bruno	2010	4	2,282	\$870,000	\$381
331 Merimont Cir	San Bruno	2010	3	2,113	\$791,000	\$374
590 Cedar Mills Ln	San Bruno	2012	4	2,050	\$847,000	\$413
596 Cedar Mills Ln	San Bruno	2012	4	1,885	\$854,500	\$453
615 Pepper Dr	San Bruno	2012	4	1,885	\$834,500	\$443
<b>Average (Weighted)</b>			<b>3.7</b>	<b>2,163</b>	<b>\$864,220</b>	<b>\$399</b>

Source: DataQuick, June 2014; Strategic Economics & Vernazza Wolfe Associates, Inc., 2014.

Figure III-2. Sales of Recently Built Condominium Units in South San Francisco

Address	City	Year Built	Bedrooms	Square Feet	Sale Amount
1488 El Camino Real	South San Francisco	2009	1	670	\$123,500
1488 El Camino Real	South San Francisco	2009	1	670	\$155,500
1488 El Camino Real	South San Francisco	2009	1	670	\$155,500
1488 El Camino Real	South San Francisco	2009	1	670	\$184,000
1488 El Camino Real	South San Francisco	2009	1	670	\$240,500
1488 El Camino Real	South San Francisco	2009	1	670	\$240,500
1488 El Camino Real	South San Francisco	2009	1	670	\$258,000
1488 El Camino Real	South San Francisco	2009	1	670	\$273,000
1488 El Camino Real	South San Francisco	2009	1	670	\$274,000
1488 El Camino Real	South San Francisco	2009	1	670	\$299,000
1488 El Camino Real	South San Francisco	2009	1	670	\$299,000
1488 El Camino Real	South San Francisco	2009	1	670	\$308,000
1488 El Camino Real	South San Francisco	2009	1	670	\$310,000
1488 El Camino Real	South San Francisco	2009	1	670	\$310,000
1488 El Camino Real	South San Francisco	2009	1	670	\$310,000
1488 El Camino Real	South San Francisco	2009	1	670	\$310,000
1488 El Camino Real	South San Francisco	2009	1	670	\$310,000
1488 El Camino Real	South San Francisco	2009	1	670	\$312,500
1488 El Camino Real	South San Francisco	2009	1	670	\$315,000
1488 El Camino Real	South San Francisco	2009	1	670	\$315,000
1488 El Camino Real	South San Francisco	2009	1	670	\$315,000
1488 El Camino Real	South San Francisco	2009	1	670	\$315,000
1488 El Camino Real	South San Francisco	2009	1	670	\$315,000
1488 El Camino Real	South San Francisco	2009	1	670	\$315,000
1488 El Camino Real	South San Francisco	2009	1	670	\$315,000
1488 El Camino Real	South San Francisco	2009	1	670	\$318,500
1488 El Camino Real	South San Francisco	2009	1	670	\$320,000
1488 El Camino Real	South San Francisco	2009	1	670	\$320,000
1488 El Camino Real	South San Francisco	2009	1	670	\$320,000
1488 El Camino Real	South San Francisco	2009	1	670	\$320,000
1488 El Camino Real	South San Francisco	2009	1	670	\$320,000
1488 El Camino Real	South San Francisco	2009	1	670	\$325,000
1488 El Camino Real	South San Francisco	2009	1	670	\$330,000
1488 El Camino Real	South San Francisco	2009	1	670	\$330,000

<b>Address</b>	<b>City</b>	<b>Year Built</b>	<b>Bedrooms</b>	<b>Square Feet</b>	<b>Sale Amount</b>
1488 El Camino Real	South San Francisco	2009	1	670	\$330,000
1488 El Camino Real	South San Francisco	2009	1	670	\$330,000
1488 El Camino Real	South San Francisco	2009	1	670	\$331,500
1488 El Camino Real	South San Francisco	2009	1	670	\$335,000
1488 El Camino Real	South San Francisco	2009	1	670	\$335,000
1488 El Camino Real	South San Francisco	2009	1	670	\$340,000
1488 El Camino Real	South San Francisco	2009	1	670	\$340,000
1488 El Camino Real	South San Francisco	2009	1	670	\$340,000
1488 El Camino Real	South San Francisco	2009	1	670	\$345,000
1488 El Camino Real	South San Francisco	2009	1	670	\$345,000
1488 El Camino Real	South San Francisco	2009	1	670	\$345,000
1488 El Camino Real	South San Francisco	2009	1	670	\$375,000
1488 El Camino Real	South San Francisco	2009	1	670	\$375,000
1488 El Camino Real	South San Francisco	2009	2	940	\$130,000
1488 El Camino Real	South San Francisco	2009	2	940	\$138,500
1488 El Camino Real	South San Francisco	2009	2	990	\$204,500
1488 El Camino Real	South San Francisco	2009	2	990	\$243,500
1488 El Camino Real	South San Francisco	2009	2	990	\$278,500
1488 El Camino Real	South San Francisco	2009	2	990	\$332,000
1488 El Camino Real	South San Francisco	2009	2	990	\$388,500
1488 El Camino Real	South San Francisco	2009	2	990	\$402,500
1488 El Camino Real	South San Francisco	2009	2	990	\$405,000
1488 El Camino Real	South San Francisco	2009	2	990	\$408,500
1488 El Camino Real	South San Francisco	2009	2	990	\$408,500
1488 El Camino Real	South San Francisco	2009	2	990	\$415,000
1488 El Camino Real	South San Francisco	2009	2	990	\$415,000
1488 El Camino Real	South San Francisco	2009	2	990	\$420,000
1488 El Camino Real	South San Francisco	2009	2	990	\$423,500
1488 El Camino Real	South San Francisco	2009	2	990	\$426,500
1488 El Camino Real	South San Francisco	2009	2	990	\$428,500
1488 El Camino Real	South San Francisco	2009	2	990	\$430,000
1488 El Camino Real	South San Francisco	2009	2	990	\$430,000
1488 El Camino Real	South San Francisco	2009	2	990	\$430,000
1488 El Camino Real	South San Francisco	2009	2	990	\$430,000

Address	City	Year Built	Bedrooms	Square Feet	Sale Amount
1488 El Camino Real	South San Francisco	2009	2	990	\$443,500
1488 El Camino Real	South San Francisco	2009	2	990	\$445,000
1488 El Camino Real	South San Francisco	2009	2	990	\$445,000
1488 El Camino Real	South San Francisco	2009	2	990	\$450,000
1488 El Camino Real	South San Francisco	2009	2	990	\$482,000
1488 El Camino Real	South San Francisco	2009	2	990	\$483,000
1488 El Camino Real	South San Francisco	2009	2	1,100	\$485,000
1488 El Camino Real	South San Francisco	2009	2	1,100	\$490,000
1488 El Camino Real	South San Francisco	2009	2	1,100	\$495,000
1488 El Camino Real	South San Francisco	2009	2	1,100	\$500,000
1488 El Camino Real	South San Francisco	2009	2	1,100	\$510,000
1488 El Camino Real	South San Francisco	2009	2	1,100	\$515,000
1488 El Camino Real	South San Francisco	2009	2	1,100	\$530,000
1488 El Camino Real	South San Francisco	2009	2	1,310	\$476,500
1488 El Camino Real	South San Francisco	2009	2	1,310	\$490,000
1488 El Camino Real	South San Francisco	2009	2	1,310	\$499,000
1488 El Camino Real	South San Francisco	2009	2	1,310	\$515,000
1488 El Camino Real	South San Francisco	2009	2	1,310	\$520,000
<b>Average by Unit Type</b>					
<b>1-Bedroom</b>				<b>670</b>	<b>\$302,622</b>
<b>2-Bedroom</b>				<b>1,048</b>	<b>\$419,551</b>

Sources: Dataquick, June 2014; Strategic Economics & Vernazza Wolfe Associates, Inc., 2014.

Figure III-3. Asking Rents of Recently Built Apartment Units in Daly City, Millbrae, San Bruno and South San Francisco

<b>Project</b>	<b>City</b>	<b>Year Built</b>	<b>Bedrooms</b>	<b>Baths</b>	<b>Units</b>	<b>Average Size (SF)</b>	<b>Average Rent</b>	<b>Rent per SF</b>
88 Hillside	Daly City	N/A	2	2	N/A	1,132	\$3,070	\$2.71
Pinedera	Millbrae	2014	2	2	45	1,363	\$3,400	\$2.50
			3	2	9	1,500	\$3,800	\$2.53
Avalon	San Bruno	2007	1	1	135	789	\$2,438	\$3.09
			2	1 - 2.5	269	1,282	\$3,796	\$2.96
			3	2 - 3	268	1,602	\$4,231	\$2.64
Archstone/Solitare	South San Francisco	2007	1	1	263	931	\$3,035	\$3.26
			2	2	96	1,171	\$3,221	\$2.75
<b>Percent of Total/Weighted Average by Unit Type</b>								
<b>1-bedroom</b>			<b>1</b>	<b>1</b>	<b>37%</b>	<b>883</b>	<b>\$2,833</b>	<b>\$3.21</b>
<b>2-bedroom</b>			<b>2</b>	<b>1 to 2.5</b>	<b>38%</b>	<b>1,265</b>	<b>\$3,618</b>	<b>\$2.86</b>
<b>3-bedroom</b>			<b>3</b>	<b>2 to 3</b>	<b>26%</b>	<b>1,599</b>	<b>\$4,217</b>	<b>\$2.64</b>

Sources: CoStar, May and June 2014; City of San Bruno, 2014; Strategic Economics & Vernazza Wolfe Associates, Inc., 2014.



Figure III-4. Colma Prototypes

Prototype	Unit Type	Number of Units	Net Area (SF)	Unit Sales Price/ Monthly Rent	Price or Rent per SF
<b>Single-Family Detached (For-Sale)</b>					
Wood siding wood frame	4 BD/2.5 BA	10	2,800	\$1,075,000	\$384
7 units per acre					
Attached garage					
Net Residential Area (Net SF)			28,000		
<b>Condominiums (For-Sale)</b>					
Type V wood frame	1 BD/1 BA	4	900	\$406,000	\$451
50 units per acre	2 BD/2 BA	6	1,200	\$489,000	\$408
Subterranean parking	3 BD/2 BA	2	1,400	\$550,000	\$393
	3 BD/2.5 BA	3	1,700	\$688,000	\$405
Net Residential Area (Net SF)			18,700		
Average Net SF per Unit			1,247		
<b>Apartments (Rental)</b>					
Type V wood frame	1 BD/1 BA	20	900	\$2,900	\$3.22
32 units per acre	2 BD/2 BA	20	1,200	\$3,300	\$2.75
Podium parking	3 BD/2 BA	20	1,600	\$4,100	\$2.56
Net Residential Area (Net SF)			74,000		
Average Net SF per Unit			1,233		

Sources: Strategic Economics & Vernazza Wolfe Associates, Inc., 2014.

## HOUSEHOLD INCOMES OF BUYERS AND RENTERS

Using the sales prices and rents shown in Figure III-4, the next step is to calculate the annual household incomes of the buyers of new for-sale single-family detached and condominium units, and the renters occupying new apartment units. The household income is a key input to the IMPLAN3 economic impact analysis described in Section IV of this report.

### Incomes of Single-Family Detached Units Buyers

To calculate the household income of buyers of new single-family detached units, the analysis used typical mortgage terms for San Mateo County: 20 percent down payment, 30 year fixed rate mortgage, and 4.35 percent interest rate. Colma's property tax rate was estimated from the San Mateo County Tax Rate Book. Total housing costs, including monthly payments for mortgage payments, property taxes and insurance, are assumed to be 35 percent of available monthly income. The result of the income estimates for households buying new single-family detached units is shown in Figure III-5. As shown in the calculations, for single-family detached units, household incomes are estimated to be over \$150,000.

## **Incomes of Condominium Buyers**

To calculate the household income of buyers of new condominium units, the analysis applied mortgage terms typical for San Mateo County: 20 percent down payment, 30 year fixed rate mortgage, and 4.35 percent interest rate. Property tax rates were estimated from San Mateo County's Tax Rate Book. Total housing costs, including monthly payments for mortgage payments, property taxes, insurance and homeowner association (HOA) fees, are assumed to be 35 percent of available monthly income. The result of the income estimates for households buying new condominium units is shown in Figure III-6. As shown in the calculations, owners of one-bedroom condominium units have a household income of \$87,000, while owners of two- and three-bedroom units have a household income and some three-bedroom between \$100,000 and \$150,000.

## **Incomes of Apartment Renters**

For renter households, maximum annual housing costs are assumed to be 30 percent of gross household income, a standard established in California's Health and Safety Code Sections 50052.5 and 50053. The estimated household income of renters varies by unit type, as indicated in Figure III-7. One-bedroom unit renter households have an estimated annual income of \$116,000. Two-bedroom and three-bedroom unit renter households have estimated household incomes of \$132,000 and \$164,000, respectively.

Figure III-5. Estimated Annual Household Incomes of Buyers of Single-Family Detached Units

<b>Single-Family Detached Units</b>	
<b>4 BD/2.5 BA</b>	
Number of Households	10
Sales Price	\$1,075,000
Down Payment (a)	\$215,000
Loan Amount	\$860,000
Monthly Debt Service (b)	\$4,281
Annual Debt Service	\$51,374
Annual Property Taxes (c)	\$11,311
Fire and Hazard Insurance (d)	\$3,763
Annual Housing Costs (e)	\$66,448
Household Income	\$189,851

Notes:

- (a) Down payment is estimated at 20% of sales price, based on Freddie Mac data for San Mateo County.
- (b) Interest rate is estimated at 4.35% for a 30-year term, based on Freddie Mac data, <http://www.freddiemac.com/pmms/pmms30.htm>.
- (c) Property tax rate is 1.0522% based on San Mateo County Tax Book.
- (d) Industry standard, estimated at 0.35%.
- (e) Homeownership housing burden is estimated at 35%, based on California Health & Safety Code Sections 50052.5 and 50053.

Sources: Strategic Economics & Vernazza Wolfe Associates, Inc., 2014.

Figure III-6. Estimated Annual Household Incomes of Buyers of Condominium Units

	<b>Condominium Units</b>			
	<b>1 BD/1 BA</b>	<b>2 BD/2 BA</b>	<b>3 BD/2 BA</b>	<b>3 BD/2.5 BA</b>
Number of Households	4	6	2	3
Sales Price	\$406,000	\$489,000	\$550,000	\$688,000
Down Payment (a)	\$81,200	\$97,800	\$110,000	\$137,600
Loan Amount	\$324,800	\$391,200	\$440,000	\$550,400
Monthly Debt Service (b)	\$1,617	\$1,947	\$2,190	\$2,740
Annual Debt Service	\$19,403	\$23,369	\$26,284	\$32,879
Annual Property Taxes (c)	\$4,272	\$5,145	\$5,787	\$7,239
Annual HOA Fees (d)	\$5,400	\$5,400	\$5,400	\$5,400
Fire and Hazard Insurance (e)	\$1,421	\$1,712	\$1,925	\$2,408
Annual Housing Costs (f)	\$30,496	\$35,626	\$39,397	\$47,927
Household Income	\$87,130	\$101,789	\$112,562	\$136,933

Notes:

- (a) Down payment is estimated at 20% of sales price, based on Freddie Mac data for San Mateo County.
- (b) Interest rate is estimated at 4.35% for a 30-year term, based on Freddie Mac data, <http://www.freddiemac.com/pmms/pmms30.htm>.
- (c) Property tax rate is 1.0522% based on San Mateo County Tax Book.
- (d) Homeownership association (HOA) fees are estimated at \$450 per month, based on review of new condominiums in San Mateo County.
- (e) Industry standard
- (f) Homeownership housing burden is estimated at 35%, based on California Health & Safety Code Sections 50052.5 and 50053.

Sources: Strategic Economics & Vernazza Wolfe Associates, Inc., 2014.

Figure III-7. Estimated Annual Household Incomes of Renters of Apartment Units

	Apartment Unit Type		
	1 BD/1 BA	2 BD/2 BA	3 BD/2 BA
Number of Households	20	20	20
Monthly Rent	\$2,900	\$3,300	\$4,100
Annual Housing Costs	\$34,800	\$39,600	\$49,200
Housing Costs as % of Income (a)	30%	30%	30%
Household Income	\$116,000	\$132,000	\$164,000

Notes:

(a) Renter housing burden is estimated at 30%, based on California Health & Safety Code Sections 50052.5 and 50053.  
Sources: Strategic Economics & Vernazza Wolfe Associates, Inc., 2014.

## IV. ECONOMIC IMPACT ANALYSIS (IMPLAN3)

The buyers and renters of the new market-rate single-family detached units, condominiums and apartments create new spending in the local economy. These new expenditures can be linked to new jobs, many of which pay low wages. The job and wage impacts related to new market-rate housing units are measured using IMPLAN3, an economic impact analysis tool. An economics consulting firm, Applied Development Economics (ADE) undertook the IMPLAN3 analysis with the information on residential prototypes and associated buyers' and renters incomes provided by Strategic Economics and Vernazza Wolfe Associates Inc. In this section of the report, the methodology and results of the IMPLAN3 analysis are described in detail.

### THE IMPLAN3 MODEL

The IMPLAN model is an economic dataset that has been used for over 35 years to measure the economic impacts of new investments and spending using the industrial relationships defined through an Input-Output Model. The IMPLAN model can estimate economic impacts resulting from changes in industry output, employment, income, and other measures. The latest version of this model is referred to as IMPLAN3.

For this analysis, the input-output model used data specific to San Mateo County in order to estimate the multiplier effects resulting from the households that could potentially rent or buy new housing units in Colma. In this case, all of the multiplier effects derive from new demand for goods and local services (including government) that new households would generate within San Mateo County. It does not account for economic impacts generated during the construction period, or any economic impacts that would occur outside of the county.

The economic impacts estimated by the model generally fall into one of three categories - direct, indirect, or induced. For this analysis, the direct impacts represent the household income brought into the community by new residents. Indirect impacts would normally result from demand for commodities and services provided by suppliers for business operations. (Because the direct impacts come only from household spending, and not from business activity, the indirect effects were not calculated.) Induced impacts represent the potential effects resulting from household spending at local establishments by the new workers hired as a result of increased household expenditures. These impacts affect all sectors of the economy, but primarily affect retail businesses, health services, personal services providers, and government services. The employment estimates provided by the IMPLAN3 model cover all types of jobs, including full and part time jobs.

The first analysis undertaken by the IMPLAN3 model estimated the household demand for retail goods and personal services. It is assumed that buyers and renters of new housing units in Colma increase demand for goods and services within San Mateo County. This demand is based on the projected incomes of renters and owners for each prototype. The IMPLAN3 model's calculations are based on changes in household income, which adjusts the gross income to account for the payment of income taxes and savings.<sup>4</sup>

The second analysis estimated the induced impacts, or multiplier effects of new household spending in terms of jobs and wage income. The jobs and income calculations are focused on the induced jobs that would be created through local spending by the new households. The input-output model

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<sup>4</sup> According to IMPLAN Group LLC, when the economic impact is modeled based on household income change, IMPLAN3 will adjust the input for income taxes and savings.

estimates the job impacts by detailed industry sector. The analysis took the detailed industry impact estimates and distributed them by occupational category. The occupational employment data used in the analysis came from the California Employment Development Department (EDD) Labor Market Information Division, and aggregates together data for all of California. After converting the industry level data into occupational employment, the income distribution was calculated using the occupational wage data for the San Francisco-San Mateo-Redwood City Metropolitan Division (MD) that combines San Francisco, Marin, and San Mateo counties. The average wage by occupation was used to make this calculation. The 2014 (first quarter) occupational wage data used in the analysis comes from California's EDD.

It should be noted that the figures used in the IMPLAN3 analysis reflect the demand for retail goods and services by net, new San Mateo County households. The multiplier impacts assume that all of this spending will remain in San Mateo County.<sup>5</sup>

## HOUSEHOLD INCOME IMPACTS

Since the IMPLAN3 Model bases its household income impacts on Consumer Expenditure Survey data, income categories are used in the model instead of continuous income information. Because of this feature, the analysis sorted the renters and buyers of new market rate units into income groups, and then calculated the economic impacts based on the total income calculated for each income group.

Figure IV-1 below summarizes the household income data for single-family detached, condominium and apartment households. As shown, all 10 single-family detached buyer households have an average income over \$150,000, with a total combined household income of \$1.9 million. Among the 15 condominium buyer households, four have an average household income between \$75,000 and \$100,000 and 11 have an average income between \$100,000 and \$150,000. The aggregate household income of the condominium buyer households is \$1.6 million. The rental prototype has 40 households in the \$100,000-\$150,000 income category, and 20 households in the over \$150,000 income category. The combined total household income for renter households is \$8.24 million. These total income figures, adjusted to account for taxes and savings, were used as inputs for the IMPLAN3 analysis.

## EMPLOYMENT AND WAGE IMPACTS

Based on the incomes of the new buyers and renters, the next step is to determine employment and wage impacts from each prototype. Estimated employment and wages are shown in Figure IV-2 for each IMPLAN3 industry sector, indicating the number of induced jobs, the industry's share of total employment growth by prototype, and the average wage by industry. Figure IV-3 provides the same IMPLAN3 output data, organized by occupation rather than industry, for each prototype. As shown in both figures, many of the induced jobs generated within San Mateo County are in low-wage sectors and occupations related to retail and food services (restaurants). However, a significant proportion of induced jobs are in higher-paying resident-serving categories such as health care and government.

## ESTIMATING WORKER-HOUSEHOLDS

Recognizing that many households have more than one wage-earner, the next step is to calculate the number of worker-households by dividing the total number of new workers by the average number of wage-earners per household in Colma. According to the U. S. Census Bureau 2008-2012 American

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<sup>5</sup> Estimating the retail leakage would require a detailed analysis of retail sales totals for existing businesses in San Mateo County and is beyond the scope of this study.

Community Survey 3-Year Estimate, Colma has an average of 2.05 workers per household. The number of induced jobs is divided by 2.05 to calculate the total number of worker households. Figure IV-4 illustrates this calculation.

## ESTIMATING DEMAND FOR AFFORDABLE HOUSING

To estimate the demand for affordable housing, it is first necessary to determine the incomes of the new households. Once the average annual household income of worker households is calculated, the next step is to categorize households into area median income (AMI) levels based on the thresholds set by California Department of Housing and Community Development for San Mateo County. The average household size in Colma is 3.6 (rounded to 4.0), according to the US Census American Community Survey 5-Year Estimates 2008-2012. The income threshold for a four-person household in San Mateo County was therefore used to determine the AMI categories of each new worker household.<sup>6</sup> Figure IV-5 indicates that of the 3.3 new worker households associated with a single-family detached development, there will be 2.6 households that need affordable housing. The comparable figures for condominium and apartment developments are, respectively, 3.0 and 13.9 households.

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<sup>6</sup> The average Colma household size is 3.6, according to the US Census, American Community Survey 5 Year Estimates, 2008-2012. This figure was rounded to 4.0 persons.

Figure IV-1. Estimated Incomes by Income Categories for Buyers of Single-Family Detached and Condominium Units, and for Renters of Apartment Units

Income Category	Single-Family Detached Prototype			Condominium Prototype			Apartment Prototype		
	New Households	Aggregate Household Incomes	Average Household Income	New Households	Aggregate Household Incomes	Average Household Income	New Households	Aggregate Household Incomes	Average Household Income
Less than \$10,000	0	\$0	n/a	0	\$0	n/a	0	0	n/a
\$10,000-\$15,000	0	\$0	n/a	0	\$0	n/a	0	0	n/a
\$15,000-\$25,000	0	\$0	n/a	0	\$0	n/a	0	\$0	n/a
\$25,000-\$35,000	0	\$0	n/a	0	\$0	n/a	0	\$0	n/a
\$35,000-\$50,000	0	\$0	n/a	0	\$0	n/a	0	\$0	n/a
\$50,000-\$75,000	0	\$0	n/a	0	\$0	n/a	0	\$0	n/a
\$75,000-\$100,000	0	\$0	n/a	4	\$348,522	\$87,130	0	\$0	n/a
\$100,000-\$150,000	0	\$0	n/a	11	\$1,246,655	\$113,332	40	\$4,960,000	\$124,000
Over \$150,000	10	\$1,898,509	\$189,851	0	\$0	n/a	20	\$3,280,000	\$164,000
<b>Total</b>	<b>10</b>	<b>\$1,898,509</b>	<b>\$189,851</b>	<b>15</b>	<b>\$1,595,176</b>	<b>\$106,345</b>	<b>60</b>	<b>\$8,240,000</b>	<b>\$137,333</b>

Sources: Applied Development Economics, Inc., 2015; Vernazza Wolfe Associates, Inc. and Strategic Economics, 2015.



Figure IV-2. Estimated Job and Wage Impacts of Prototypes by Industry

Industry (NAICS code)	Average Wage	Single-Family Detached Prototype		Condominium Prototype		Apartment Prototype	
		Jobs	% Of Jobs	Jobs	% Of Jobs	Jobs	% Of Jobs
11 Forestry, fishing, hunting, and agriculture	\$38,309	0.00	0%	0.00	0%	0.02	0%
21 Mining	\$70,505	0.00	0%	0.00	0%	0.01	0%
22 Utilities	\$74,144	0.01	0%	0.02	0%	0.06	0%
23 Construction	\$68,376	0.15	2%	0.15	2%	0.71	2%
31 Manufacturing	\$66,946	0.02	0%	0.02	0%	0.10	0%
42 Wholesale trade	\$62,797	0.08	1%	0.10	1%	0.44	1%
44 Retail trade	\$54,808	1.04	15%	1.21	16%	5.55	16%
48 Transportation & warehousing	\$49,308	0.15	2%	0.16	2%	0.76	2%
51 Information	\$77,312	0.09	1%	0.11	1%	0.48	1%
52 Finance & insurance	\$71,830	0.33	5%	0.39	5%	1.78	5%
53 Real estate & rental & leasing	\$66,316	0.32	5%	0.42	5%	1.77	5%
54 Professional, scientific & technical services	\$91,389	0.21	3%	0.22	3%	1.04	3%
55 Management of companies & enterprises	\$88,955	0.01	0%	0.01	0%	0.05	0%
56 Admin, support, waste mgt, remediation services	\$54,197	0.28	4%	0.33	4%	1.48	4%
61 Educational services	\$62,584	0.30	4%	0.26	3%	1.34	4%
62 Health care and social assistance	\$68,778	1.20	18%	1.55	20%	6.79	19%
71 Arts, entertainment & recreation	\$49,614	0.23	3%	0.26	3%	1.19	3%
72 Accommodation & food services	\$31,520	0.95	14%	1.19	15%	5.30	15%
81 Other services (except public administration)	\$53,217	0.68	10%	0.81	10%	3.66	10%
91 Government	\$70,961	0.68	10%	0.56	7%	2.91	8%
<b>Total</b>		<b>6.73</b>	<b>100%</b>	<b>7.74</b>	<b>100%</b>	<b>35.45</b>	<b>100%</b>

Note: Average wage is calculated based on the mean occupational wages, and the average statewide distribution of occupations for each industry. Sources: Applied Development Economics, Inc, 2015; Vernazza Wolfe Associates, Inc. and Strategic Economics, 2015.

Figure IV-3. Estimated Job and Wage Impacts of Prototypes by Occupation

<b>SOC Code</b>	<b>Occupational Title</b>	<b>Average Annual Wage</b>	<b>Single-Family Detached Jobs</b>	<b>Condominium Jobs</b>	<b>Apartment Jobs</b>
11-0000	Management Occupations	\$146,537	0.31	0.36	1.63
13-0000	Business and Financial Operations Occupations	\$95,505	0.33	0.35	1.65
15-0000	Computer and Mathematical Occupations	\$104,996	0.11	0.12	0.58
17-0000	Architecture and Engineering Occupations	\$100,605	0.06	0.06	0.28
19-0000	Life, Physical, and Social Science Occupations	\$96,012	0.06	0.06	0.27
21-0000	Community and Social Services Occupations	\$54,663	0.15	0.17	0.79
23-0000	Legal Occupations	\$140,841	0.04	0.04	0.20
25-0000	Education, Training, and Library Occupations	\$59,459	0.26	0.25	1.22
27-0000	Arts, Design, Entertainment, Sports, Media Occupations	\$70,952	0.10	0.12	0.53
29-0000	Healthcare Practitioners and Technical Occupations	\$111,876	0.43	0.54	2.39
31-0000	Healthcare Support Occupations	\$41,374	0.20	0.26	1.14
33-0000	Protective Service Occupations	\$61,618	0.18	0.16	0.81
35-0000	Food Preparation and Serving-Related Occupations	\$27,076	1.01	1.25	5.57
37-0000	Building and Grounds Cleaning and Maintenance	\$33,575	0.21	0.25	1.12
39-0000	Personal Care and Service Occupations	\$33,716	0.48	0.58	2.61
41-0000	Sales and Related Occupations	\$54,767	0.89	1.05	4.77
43-0000	Office and Administrative Support Occupations	\$46,720	1.04	1.18	5.42
45-0000	Farming, Fishing, and Forestry Occupations	\$34,770	0.01	0.01	0.04
47-0000	Construction and Extraction Occupations	\$63,327	0.13	0.13	0.62
49-0000	Installation, Maintenance, and Repair Occupations	\$58,564	0.24	0.28	1.27
51-0000	Production Occupations	\$41,105	0.13	0.15	0.68
53-0000	Transportation and Material Moving Occupations	\$42,255	0.36	0.40	1.85
	<b>Total all occupations</b>		<b>6.73</b>	<b>7.74</b>	<b>35.45</b>

Sources: Applied Development Economics, 2015; IMPLAN3 input-output model, 2015; California Labor Market Information Division, 2015.

Figure IV-4. Induced Employment Impacts, Colma

<b>Project Prototype</b>	<b>Single-Family Detached</b>	<b>Condominium</b>	<b>Apartment</b>
Number of Units	10	15	60
Induced Employment (Workers)	7	8	35
Average Number of Workers per Household	2.05	2.05	2.05
New Worker Households	3.28	3.78	17.29

Source: Applied Development Economics, 2015; Strategic Economics & Vernazza Wolfe Associates, Inc. 2015.

Figure IV-5. New Worker Households by Income Group for Single-Family Detached, Condominium and Apartment Prototypes

<b>Worker Households by Income Category</b>	<b>Income Thresholds (4-Person Household)</b>	<b>Single-Family Detached</b>	<b>Condominium</b>	<b>Apartment</b>
Households Requiring Affordable Housing				
Very Low Income (<=50% AMI)	\$56,550	0.0	0.0	0.0
Low Income (51-80% AMI)	\$90,500	0.8	1.0	4.6
Moderate Income (81-120% AMI)	\$123,600	1.8	2.0	9.3
Subtotal Very Low, Low, Moderate Income		2.6	3.0	13.9
Above Moderate Income Households (>120% AMI)	>\$123,600	0.7	0.7	3.4
<b>Total All Worker Households</b>		<b>3.3</b>	<b>3.8</b>	<b>17.3</b>

Source: Applied Development Economics, Inc., 2015; Strategic Economics & Vernazza Wolfe Associates, Inc. 2015.

## V. AFFORDABILITY GAP ANALYSIS

Estimating the housing affordability gap is necessary to calculate the maximum potential housing impact fee. This affordability gap analysis was conducted at the county-wide level so that it can be applied to all the jurisdictions in San Mateo County participating in the multi-city nexus study.<sup>7</sup> This section summarizes the approach to calculating the housing affordability gap and the results of the analysis.

### METHODOLOGY

The housing affordability gap is defined as the difference between what very low, low, and moderate income households can afford to pay for housing and the development cost of new, modest housing units. Calculating the housing affordability gap involves the following three steps:

1. Estimating affordable rents and housing prices for households in target income groups.
2. Estimating development costs of building new, modest housing units, based on current cost and market data.
3. Calculating the difference between what renters and owners can afford to pay for housing and the cost of development of rental and ownership units.

The housing affordability gap is estimated at a countywide level, and assumed to be the same for all the jurisdictions participating in the multi-city nexus studies, for the following reasons:

- Both the California Department of Housing and Community Development Department (HCD) and U.S. Housing and Urban Development Department (HUD) define the ability to pay for housing at the county (rather than the city) level. Existing affordable housing studies and policies in most jurisdictions rely on these countywide area median income (AMI) estimates published by HCD or by HUD. This analysis uses 2014 income limits published by California Department of Housing and Community Development (HCD).
- Construction costs for housing and commercial development do not vary dramatically between different jurisdictions in San Mateo County, because the cost of labor and materials is regional in nature.

Although land costs vary widely in San Mateo County, the study estimated a single land value for the county based on data provided by developers of recently built projects. These costs are at the low end of recent land sales, as described below. Additionally, because the land costs used in the analysis are from 2012 and 2013, and land values have escalated rapidly since then, the resulting affordability gap will be slightly lower than if the analysis incorporated 2014 land costs, providing a conservative estimate of the affordability gap.

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<sup>7</sup> Although there is a single housing affordability gap estimate for all jurisdictions in the county, the subsequent steps in the fee calculation considers market and household characteristics for Colma, generating a unique maximum fee for each jurisdiction in the county, as described in Section V.

## ESTIMATING AFFORDABLE RENTS AND SALES PRICES

The first step in calculating the housing affordability gap is to determine the maximum amount that households at the targeted income levels can afford to pay for housing. For eligibility purposes, most affordable housing programs define very low income households as those earning approximately 50 percent or less of area median income (AMI), low income households as those earning between 51 and 80 percent of AMI, and moderate income households as those earning between 81 and 120 percent of AMI. In order to ensure that the affordability of housing does not use the top incomes in each category, the analysis uses a point within the income ranges for the low and moderate income groups.<sup>8</sup>

Figure V-1 and Figure V-2 show the calculations for rental housing. The maximum affordable monthly rent is calculated as 30 percent of gross monthly household income, minus a deduction for utilities. For example, a very low income, three-person household could afford to spend \$1,273 on total monthly housing costs. After deducting for utilities, \$1,220 a month is available to pay for rent.

Figure V-3 and Figure V-4 demonstrate housing affordability for homeowners. Homeowners are assumed to pay a maximum of 35 percent of gross monthly income on total housing costs, depending on income level. The maximum affordable price for for-sale housing is then calculated based on the total monthly mortgage payment that a homeowner could afford, using standard loan terms used by CalHFA programs and many private lenders for first-time homebuyers, including a five percent down payment (Figure V-3). For example, a moderate income, three-person household could afford to spend \$2,974 a month on total housing costs, allowing for the purchase of a \$348,526 home. Key assumptions used to calculate the maximum affordable rents and housing prices are discussed below.

- **Unit types:** For rental housing, the analysis included studios, one-, two-, and three-bedroom units. For for-sale housing, one-, two-, and three-bedroom units were included. These unit types represent the affordable and modest market-rate apartment and condominium units available in San Mateo County. Condominiums were used to represent modest for-sale housing because single-family homes in San Mateo County tend to be significantly more expensive than condominiums.
- **Occupancy and household size assumptions.** Because income levels for affordable housing programs vary by household size, calculating affordable unit prices requires defining household sizes for each unit type. Consistent with California Health and Safety Code Section 50052.5(h), unit occupancy was generally estimated as the number of bedrooms plus one. For example, a studio unit is assumed to be occupied by one person, a one bedroom unit is assumed to be occupied by two people, and so on. Several adjustments to this general assumption were made in order to capture the full range of household sizes. In particular, it is assumed that one-bedroom condominiums could be occupied by one- or two-person households, and three-bedroom apartments and condominiums could be occupied by four- or five-person households.<sup>9</sup>

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<sup>8</sup> For rental housing, 70 percent of AMI is used to represent low income households and 90 percent of AMI is used to represent moderate income households. For ownership housing, it is assumed that moderate income homebuyers may earn slightly less than the maximum for that income category (110 percent of AMI). Higher income limits are used for ownership than for rental housing because ownership housing is more expensive to purchase and maintain.

<sup>9</sup> For these unit types, the maximum affordable home price (or rent) is calculated as the average price (or rent) that the relevant household sizes can afford to pay. For example, the maximum affordable home price for a one-bedroom condominium is calculated as the average of the maximum affordable home price for one- and two-person households.

- **Targeted income levels for rental housing:** For rental housing, affordable rents were calculated for very low income, low income, and moderate income households (see Figure V-1 and Figure V-2). For eligibility purposes, most affordable housing programs define very low income households as those earning 50 percent or less of area median income (AMI), low income households as those earning between 51 and 80 percent of AMI, and moderate income households as those earning between 81 and 120 percent of AMI. However, defining affordable housing expenses based at the top of each income range would result in prices that are not affordable to most of the households in each category. Thus, this analysis does not use the maximum income level for all of the income categories. Instead, for rental housing, 70 percent of AMI is used to represent moderate income households and 90 percent of AMI is used to represent moderate income households.
- **Targeted income levels for ownership housing** For ownership housing, affordable home prices were calculated only for moderate income households (see Figure V-3 and Figure V-4). Higher income limits are used for ownership than for rental housing because ownership housing is more expensive to purchase and maintain. It is assumed that moderate income homebuyers may earn slightly less than the maximum for that income category (110 percent of AMI).
- **Maximum monthly housing costs.**<sup>10</sup> For all renters, maximum monthly housing costs are assumed to be 30 percent of gross household income. For homebuyers, 35 percent of gross income is assumed to be available for monthly housing costs, reflecting the higher incomes of this group.<sup>11</sup> These standards are based on California’s Health & Safety Code Sections 50052.5 and 50053.
- **Utilities.** The monthly utility cost assumptions are based on utility allowances calculated by the U.S. Department of Housing and Urban Development for San Mateo County.<sup>12</sup> Both renters and owners are assumed to pay for heating, cooking, other electric, and water heating. In addition, owners are assumed to pay for water and trash collection.<sup>13</sup>
- **Mortgage terms and costs included for ownership housing.** The mortgage calculations are based on the terms typically offered to first-time homebuyers (such as the terms offered by the California Housing Finance Authority), which is a 30-year mortgage with a five percent down payment. A five percent down payment standard is also used by many private lenders for first-time homebuyers. Based on recent interest rates to first-time buyers, the analysis assumes a 5.375 percent annual interest rate.<sup>14</sup> In addition to mortgage payments and utilities,

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<sup>10</sup> The calculation of homeowner affordability is conservative in that the model accounts for additional costs for buyers (such as utility costs) that might not be considered by all lenders.

<sup>11</sup> The assumption that homebuyers spend 35 percent of gross household income on housing results in a lower affordability gap than if 30 percent of gross household income were used instead.

<sup>12</sup> U.S. Department of Housing and Urban Development, "Allowances for Tenant-Furnished Utilities and Other Services: Housing Authority of San Mateo County," November 2013.

<sup>13</sup> Units are assumed to have natural gas heating, cooking, and water heating systems, as natural gas is the most common fuel for units located in San Mateo County. Sources: U.S. Census Bureau, 2012 American Community Survey, "Table B25117: Tenure by House Heating Fuel," San Mateo County; U.S. Census Bureau, 2011 American Housing Survey, "Table C-03-AH-M, San Francisco-San Mateo-Redwood City: Heating, Air Conditioning, and Appliances – All Housing Units."

<sup>14</sup> Sources: CalHFA Mortgage Calculator, accessed March 2014; Zillow.com, "Current Mortgage Rates and Home Loans," accessed March 2014; interviews with California Housing Finance Agency (CalHFA) Preferred Loan Officers, March 2014.

monthly ownership housing costs include homeowner association (HOA) dues,<sup>15</sup> property taxes,<sup>16</sup> private mortgage insurance,<sup>17</sup> and hazard and casualty insurance.<sup>18</sup>

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<sup>15</sup> HOA fees are estimated at \$300 per unit per month, based on common HOA fees in San Mateo County as reported in: Polaris Pacific, "Silicon Valley Condominium Market," February 2014.

<sup>16</sup> The annual property tax rate is estimated at 1.18 percent of the sales price, based on the average total tax rate for San Mateo County (calculated from County of San Mateo, 2008-09 Property Tax Highlights [http://www.co.sanmateo.ca.us/Attachments/controller/Files/PTH/PTH\\_2009.pdf](http://www.co.sanmateo.ca.us/Attachments/controller/Files/PTH/PTH_2009.pdf)) and discussions with Preferred Loan Officers.

<sup>17</sup> The annual private mortgage insurance premium rate is estimated at 0.89 percent of the total mortgage amount, consistent with standard requirements for conventional loans with a five percent down payment. Sources: Genworth, February 2014; MGIC, December 2013; Radian, April 2014.

<sup>18</sup> The annual hazard and casualty insurance rate is assumed to be 0.35 percent of the sales price, consistent with standard industry practice.

Figure V-1. Calculation of Affordable Rents in San Mateo County by Household Size, 2014

Persons per Household (HH)	1	2	3	4	5
<b>Very Low Income (50% AMI)</b>					
Maximum Household Income at 50% AMI	\$39,600	\$45,250	\$50,900	\$56,550	\$61,050
Maximum Monthly Housing Cost (a)	\$990	\$1,131	\$1,273	\$1,414	\$1,526
Utility Deduction	\$29	\$40	\$53	\$68	\$68
Maximum Available for Rent (HH Size) (b)	\$961	\$1,091	\$1,220	\$1,346	\$1,458
<b>Low Income (70% AMI)</b>					
Maximum Household Income at 70% AMI	\$50,470	\$57,680	\$64,890	\$72,100	\$77,875
Maximum Monthly Housing Cost (a)	\$1,262	\$1,442	\$1,622	\$1,803	\$1,947
Utility Deduction	\$29	\$40	\$53	\$68	\$68
Maximum Available for Rent (HH Size) (b)	\$1,233	\$1,402	\$1,569	\$1,735	\$1,879
<b>Moderate Income (90% AMI)</b>					
Maximum Household Income at 90% AMI	\$64,890	\$74,160	\$83,430	\$92,700	\$100,125
Maximum Monthly Housing Cost (a)	\$1,622	\$1,854	\$2,086	\$2,318	\$2,503
Utility Deduction	\$29	\$40	\$53	\$68	\$68
Maximum Available for Rent (HH Size) (b)	\$1,593	\$1,814	\$2,033	\$2,250	\$2,435

Notes:

(a) 30 percent of maximum monthly household income.

(b) Maximum monthly housing cost minus utility deduction.

Acronyms:

AMI: Area median income

HH: Household

Sources: California Department of Housing and Community Development, 2014; U.S. Department of Housing and Urban Development, 2013; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2014.



Figure V-2. Calculation of Affordable Rents in San Mateo County by Unit Type, 2014

<b>Affordable Sales Price by Unit Type (a)</b>	<b>Studio (1 person)</b>	<b>1 Bedroom (2 persons)</b>	<b>2 Bedroom (3 persons)</b>	<b>3 Bedroom (4 and 5 persons)</b>
Very Low Income (50% AMI)	\$961	\$1,091	\$1,220	\$1,402
Low Income (70% AMI)	\$1,233	\$1,402	\$1,569	\$1,807
Moderate Income (90% AMI)	\$1,593	\$1,814	\$2,033	\$2,342

Notes:

(a) Affordable rents are calculated as follows: Studios are calculated as one-person households; One-bedroom units are calculated as two-person households; Two-bedroom units are calculated as three-person households; Three-bedroom units are calculated as an average of four and five person households. See Figure V-1.

Sources: California Department of Housing and Community Development, 2014; U.S. Department of Housing and Urban Development, 2013; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2014.

Figure V-3. Calculation of Affordable Sales Prices in San Mateo County by Household Size, 2014

Persons per Household (HH)	1	2	3	4	5
<b>Moderate Income (110% AMI)</b>					
Maximum Household Income at 110% AMI (a)	\$79,310	\$90,640	\$101,970	\$113,300	\$122,375
Maximum Monthly Housing Cost (b)	\$2,313	\$2,644	\$2,974	\$3,305	\$3,569
Monthly Deductions					
Utilities	\$106	\$106	\$130	\$156	\$156
HOA Dues	\$300	\$300	\$300	\$300	\$300
Property Taxes and Insurance (c)	\$517	\$607	\$690	\$773	\$844
Monthly Income Available for Mortgage Payment (d)	\$1,390	\$1,631	\$1,854	\$2,076	\$2,269
Maximum Mortgage Amount (e)	\$248,195	\$291,274	\$331,100	\$370,795	\$405,155
Maximum Affordable Sales Price - HH Size (f)	\$261,258	\$306,604	\$348,526	\$390,311	\$426,479

Notes:

(a) Calculated as 110 percent of the median household income reported by HCD for each household size.

(b) Maximum housing cost is estimated at 35 percent of household income for homebuyers.

(c) Assumes annual property tax rate of 1.18 percent of sales price; annual private mortgage insurance premium rate of 0.89 percent of mortgage amount; annual hazard and casualty insurance rate of 0.35 percent of sales price.

(d) Maximum monthly housing cost minus deductions

(e) Assumes 5.375 percent interest rate and 30 year loan term

(f) Assumes 5 percent down payment (75 percent loan-to-value ratio)

Acronyms:

AMI: Area median income

HH: Household

HOA: Home owners association

Sources: California Department of Housing and Community Development, 2014; U.S. Department of Housing and Urban Development, 2013; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2014.

Figure V-4. Calculation of Affordable Sales Prices in San Mateo County by Unit Type, 2014

<b>Affordable Sales Price by Unit Type (a)</b>	<b>1 Bedroom (1 and 2 persons)</b>	<b>2 Bedroom (3 persons)</b>	<b>3 Bedroom (4 and 5 persons)</b>
Moderate Income (110% AMI)	\$283,931	\$348,526	\$408,395

Notes:

(a) One-bedroom units are calculated as an average of one- and two-person households; Two-bedroom units are calculated as three-person households; and three-bedroom units are calculated as an average of four and five person households. See Figure V-3

Sources: California Department of Housing and Community Development, 2014; U.S. Department of Housing and Urban Development, 2013; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2014.

## ESTIMATING HOUSING DEVELOPMENT COSTS

The second step in calculating the housing affordability gap is to estimate the cost of developing new, modest housing units. Modest housing is defined slightly differently for rental and ownership housing. For rental housing, the costs and characteristics of modest housing are similar to recent projects developed in San Mateo County by the affordable rental housing sector. Modest for-sale housing is assumed to be non-luxury multifamily (condominium) development because single-family homes in San Mateo County tend to be significantly more expensive than condominiums; many of the new single-family homes in the county are custom-built luxury units that are too costly to meet the standard for modest housing.

The calculation of housing development costs used in the housing affordability gap requires several steps. Because the gap covers both rental housing and for-sale housing, it is necessary to estimate costs for each. The following describes the data sources used to calculate rental and for-sale housing development costs.

### Rental Housing

Rental housing development costs were based on pro forma data obtained from three recent affordable housing projects in San Mateo County. Figure V-5 shows the location and description of these projects and summarizes the information that was used to generate a per-square-foot cost of \$410 used in the cost analysis. These costs include site acquisition costs, hard costs (on- and off-site improvements), soft costs (such as design, city permits and fees, construction interest, and contingencies), and developer fees. The costs from the rental housing pro formas were also cross-referenced against proprietary pro formas available to the consultant team from other private development projects in order to ensure accuracy.

Since these projects assumed state and federal funding, the labor costs included in the original pro formas reflect the prevailing wage requirement imposed by state and local governments. The costs shown in Figure V-5 have been adjusted to subtract out the prevailing wage requirement because the development cost model used in the housing affordability gap analysis does not assume receipt of government subsidies. A rule of thumb used by local economists who assist affordable housing developers in obtaining public financing, is to estimate that, under the prevailing wage requirement, labor costs are 25 percent higher than would otherwise be the case. Therefore, on-site and off-site improvement costs obtained from the original pro formas are reduced by 25 percent to reflect actual labor costs that would apply to construction projects that do not have these requirements.<sup>19</sup> Finally, on average, land acquisition costs accounted for 20 percent or less of these total adjusted costs.

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<sup>19</sup> These prevailing wage requirements refer only to labor cost requirements on construction projects that receive funding from the state or federal government. These are not the same as minimum wage requirements that individual cities may adopt.

Figure V-5. Affordable Housing Project Pro Forma Data

Project Description	Project 1	Project 2	Project 3
Location	San Mateo	San Mateo	San Bruno
Year Built	2013	2010	2011
Land Area (acres)	1.05	1	0.63
Gross Building Area (square feet)	106,498	127,718	42,688
Net Building Area (square feet)	56,075	67,850	33,297
Number of Units	60	68	42
Parking Type	Podium	Underground	Structure
Parking Spaces/ Unit	1.82	1.55	1.0
Land Acquisition Costs	\$3,157,000 (\$69 per SF of land)	\$5,543,600 (\$127 per SF of land)	\$2,096,500 (\$76 per SF of land)
Project Costs per SF of Net Building Area			
Land Cost (a)	\$56	\$82	\$63
Land Cost (per sq. ft. of net building area)	\$56	\$82	\$63
Hard Costs (b)	\$228	\$216	\$187
Soft Costs (c)	\$93	\$99	\$114
Developer Fees	\$25	\$21	\$39
Total Project Costs (d)	\$402	\$417	\$403

Notes:

- (a) Calculated per square foot of net building area.
- (b) Excludes prevailing wage requirements for on-site and off-site hard costs.
- (c) Includes design, engineering, city permits and fees, construction interest, contingencies, legal, etc.
- (d) Total costs include developer fees.

Acronyms:

SF: Square feet

Source: Confidential Pro Forma Data; Vernazza Wolfe Associates, Inc; Strategic Economics, 2014.

To ensure that the land value assumptions used in the rental development cost estimates (ranging from \$69 to \$127 per square foot of land) were reasonable, the consultant team analyzed recent sales of vacant properties in San Mateo County using DataQuick, a commercial vendor that tracks real estate transactions. Cities with fewer than three vacant land transactions were excluded from the analysis. As shown below in Figure V-6, land values in San Mateo County are highly variable from city to city, ranging from \$45 to \$300 per square foot; the average sales price for the selected sites in the County was \$189 per square foot. The analysis demonstrates the land cost assumptions used to calculate rental housing costs (in Figure V-5) represent the lower range of current land values.

Figure V-6. Sales of Vacant Lands in San Mateo County, 2014

Jurisdiction	Number Transactions	Average Sales Price	Average Site Size (SF)	Average Sales Price/SF Land
Belmont	4	\$920,000	6,383	\$165
Menlo Park	6	\$1,239,500	5,802	\$220
Pacifica	4	\$487,000	7,221	\$111
San Bruno	13	\$933,769	3,259	\$295
San Mateo	8	\$1,314,188	5,424	\$300
Unincorporated San Mateo County	4	\$224,250	5,194	\$45
Average of Records		\$853,118	5,547	\$189

Notes: Includes data from cities with 3 or more transactions of vacant land in San Mateo County from January through May 2014. Records with missing sales or land area information were eliminated.

Acronyms:

SF: Square feet

Sources: Dataquick, January-May 2014; Vernazza Wolfe Associates, Inc; Strategic Economics, 2014.

## For-Sale Housing

Since affordable housing developers do not typically build for-sale housing in San Mateo County, the cost of developing new, modest for-sale housing was estimated using two data methods: the first method used price data for recently built condominium units as a proxy for development costs; the second approach estimated development costs based on published market and cost data for similar projects in San Mateo County. Each of these cost estimate approaches is described in more detail below.

**Review of condominium sales data** – In this approach, average sales prices from condominium units built in San Mateo County between 2008 and 2012 are used as a proxy for development costs.<sup>20</sup> This approach assumes that construction costs, land costs, soft costs, and developer profit are all included in the unit sales price. Using data provided by DataQuick, the consultant team analyzed sales prices of condominium units of various sizes in the seven cities that experienced condominium development that exceeded 10 units in the aggregate between 2008 and 2012. These seven cities included Brisbane, East Palo Alto, Millbrae, Redwood City, San Carlos, San Mateo City, and South San Francisco. The other jurisdictions in San Mateo County experienced little or no condominium development during this time period. Figure V-7 summarizes the information that was used to generate a per-square-foot cost for condominium development of \$420.

**Cost estimate of hypothetical condominium project** - The second approach relied on published industry data sources and recent financial feasibility studies to estimate the development costs of a hypothetical condominium project, as described in Figure V-8.<sup>21</sup> Land costs were estimated based on recent DataQuick land transactions shown in Figure V-6. RS Means cost data, adjusted for the Bay

<sup>20</sup> Ideally, cost estimates would be based only on projects built in the last year or two. However, the decline in new construction after 2007 necessitated that the analysis use several years' worth of data in order to estimate for-sale housing costs. Since costs are not adjusted for inflation, they may be slightly lower than actual costs required for a new project to be built in 2014 or 2015. This approach is more conservative – and likely more accurate – than applying across-the-board inflation factors to historic costs. Furthermore, the increasing cost of residentially zoned, high density parcels is the main source of development cost increase. Adjusting land costs for inflation is not easily done.

<sup>21</sup> The hypothetical condominium building type is a Type V building with underground parking and floor-area ratio of 1.7. The building characteristics are described in Figure IV-8.

Area's construction costs, was used to calculate hard costs. Based on a review of recent financial feasibility analyses in the Bay Area, soft costs were estimated at 30 percent of hard costs, and developer fees and profits were estimated at 12 percent of hard and soft costs. Using this second method, the development costs are estimated at \$495 per net square foot of building area. In order to ensure that the results of the affordability gap analysis are conservative, the lower development cost estimate of \$420 per net square foot was selected for ownership units.

*Figure V-7. Condominium Sales: Average Unit Characteristics and Prices for Selected Cities in San Mateo County (2008-2012)*

Jurisdiction	Average Number of Bathrooms	Average Number of Bedrooms	Average Square Feet	Average Price per Square Foot	Average Unit Price
Brisbane	1.2	1.5	892	\$413	\$368,625
East Palo Alto	1.8	1.3	1,029	\$340	\$349,991
Millbrae	1.9	2	1,290	\$429	\$553,893
Redwood City	2.7	2.9	1,933	\$402	\$776,655
San Carlos	1.8	1.8	1,066	\$508	\$541,932
San Mateo City	2.3	2.2	1,545	\$439	\$677,430
South San Francisco	1.7	1.8	981	\$427	\$418,740
Aggregate	1.9	1.9	1,248	\$423	\$527,401

Sources: DataQuick, Vernazza Wolfe Associates, Inc. & Strategic Economics, 2014.

*Figure V-8. Estimate of Development Costs of Hypothetical Condominium Project*

Building Characteristics	
Land Area (SF)	110,727
Gross Building Area (SF)	188,235
Net Building Area (SF)	160,000
Number of Units	100
Parking Type	Underground
Floor-area ratio (FAR)	1.7
Density (units per acre)	39
Average Unit Size	1,600
Land Acquisition Costs per Square Foot (a)	\$189
Development Cost	
	Cost per Net SF
Land Cost (b)	\$131
Hard Costs	\$250
Soft Costs (c)	\$75
Developer Fees (d)	\$39
Total Development Costs	\$495

Notes:

(a) Land value is calculated based on DataQuick records of vacant land transactions in the county. See Figure IV-6.

(b) Calculated based on RS Means cost estimates per square foot of net building area.

(c) Estimated at 30 percent of hard costs. Includes design, engineering, city permits and fees, construction interest, contingencies, legal, etc.

(d) Estimated at 12 percent of hard costs and soft costs.

Acronyms:

SF: square feet

Sources: RS Means, 2014; DataQuick 2014; Recent financial feasibility studies; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2014.

## Cost Estimates by Unit Size

The data sources described above also provided information on estimated unit sizes. Unit size information is needed to translate costs/sales prices per square foot to unit costs. Unit sizes are estimated separately for rental and for-sale units. For the rental units, the recent inventory of projects developed by MidPen Housing was analyzed. For ownership units, the average sizes of recently built condominium units (Figure V-7) were analyzed.

Figure V-9 provides the unit sizes and development cost estimates for rental units. Per-unit development costs were calculated by multiplying average unit sizes by the per-square foot development costs of \$410. Rental unit costs range from \$205,000 for studio units to \$479,700 for three-bedroom units.

Figure V-10 summarizes the costs of condominium units. The per-unit costs were derived by multiplying the average unit size by the development cost per square foot of \$420. Condominium development costs range from \$357,000 for one-bedroom units to \$672,000 for three-bedroom units.

*Figure V-9. Rental Housing Unit Sizes and Development Costs*

<b>Unit Type</b>	<b>Estimated Cost per Net SF</b>	<b>Unit Size (net SF)</b>	<b>Development Costs</b>
Studio	\$410	500	\$205,000
One bedroom	\$410	700	\$287,000
Two bedroom	\$410	970	\$397,700
Three bedroom	\$410	1,170	\$479,700

Acronyms:

SF: Square feet

Sources: Confidential Pro Forma Data; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2014.

*Figure V-10. For-Sale Housing Unit Sizes and Development Costs*

<b>Unit Type</b>	<b>Estimated Cost per Net SF</b>	<b>Unit Size (net SF)</b>	<b>Development Costs</b>
One bedroom	\$420	850	\$357,000
Two bedroom	\$420	1,200	\$504,000
Three bedroom	\$420	1,600	\$672,000

Acronyms:

SF: Square feet

Sources: DataQuick, 2014; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2014.



## CALCULATING THE HOUSING AFFORDABILITY GAP

The final step in the analysis is to calculate the housing affordability gap, or the difference between what renters and owners can afford to pay and the total cost of developing new units. The purpose of the housing affordability gap calculation is to help determine the fee amount that would be necessary to cover the cost of developing housing for very low, low, and moderate income households. The calculation does not assume the availability of any other source of housing subsidy because not all "modest" housing is built with public subsidies, and tax credits and tax-exempt bond financing are highly competitive programs that will not always be available to developers of modest housing units.

Figure V-11 shows the housing affordability gap calculation for rental units. For each rental housing unit type and income level, the gap is defined as the difference between the per-unit cost of development and the supportable debt per unit. The supportable debt is calculated based on the net operating income generated by an affordable monthly rent, incorporating assumptions about operating expenses (including property taxes, insurance, etc.), reserves, vacancy and collection loss, and mortgage terms based on discussions with local affordable housing developers. Because household sizes are not uniform and the types of units each household may occupy is variable, the average housing affordability gap is calculated by averaging the housing affordability gaps for the various unit sizes.

Figure V-12 shows the housing affordability gap calculation for ownership units. For each unit type, the gap is calculated as the difference between the per-unit cost of development and the affordable sales price for each income level. As with rental housing, the average housing affordability gap for each income level is calculated by averaging the housing affordability gaps across unit sizes in order to reflect that households in each income group vary in size, and may occupy any of these unit types.

Finally, the tenure-neutral estimates of the housing affordability gap were estimated for very low, low, and moderate income households (Figure V-13). Because very low and low income households that are looking for housing in today's market are much more likely to be renters, an ownership gap was not calculated for these income groups. The rental gap represents the overall affordability gap for these two income groups. On the other hand, moderate income households could be either renters or owners. Therefore, the rental and ownership gaps are averaged for this income group to calculate the overall affordability gap for moderate income households. The calculated average affordability gap per unit is \$280,783 for very low income households; \$240,477 for low income households, and \$175,558 for moderate income households. The housing affordability gap is highest for very low income households because those households with higher incomes can afford to pay more for housing.

Figure V-11. Housing Affordability Gap Calculation for Rental Housing

Income Level and Unit Type	Unit Size (SF)	Maximum Monthly Rent (a)	Annual Income	Net Operating Income (b)	Available for Debt Service (c)	Supportable Debt (d)	Development Costs (e)	Affordability Gap
<b>Very Low Income (50% AMI)</b>								
Studio	500	\$961	\$11,532	\$3,455	\$2,764	\$36,552	\$205,000	\$168,448
1 Bedroom	700	\$1,091	\$13,095	\$4,940	\$3,952	\$52,259	\$287,000	\$234,741
2 Bedroom	970	\$1,220	\$14,634	\$6,402	\$5,122	\$67,725	\$397,700	\$329,975
3 Bedroom	1,170	\$1,402	\$16,824	\$8,483	\$6,786	\$89,733	\$479,700	\$389,967
<b>Average Affordability Gap</b>								<b>\$280,783</b>
<b>Low Income (70% AMI)</b>								
Studio	500	\$1,233	\$14,793	\$6,553	\$5,243	\$69,323	\$205,000	\$135,677
1 Bedroom	700	\$1,402	\$16,824	\$8,483	\$6,786	\$89,733	\$287,000	\$197,267
2 Bedroom	970	\$1,569	\$18,831	\$10,389	\$8,312	\$109,902	\$397,700	\$287,798
3 Bedroom	1,170	\$1,807	\$21,680	\$13,096	\$10,477	\$138,535	\$479,700	\$341,165
<b>Average Affordability Gap</b>								<b>\$240,477</b>
<b>Moderate Income (90% AMI)</b>								
Studio	500	\$1,593	\$19,119	\$10,663	\$8,530	\$112,796	\$205,000	\$92,204
1 Bedroom	700	\$1,814	\$21,768	\$13,180	\$10,544	\$139,417	\$287,000	\$147,583
2 Bedroom	970	\$2,033	\$24,393	\$15,673	\$12,539	\$165,796	\$397,700	\$231,904
3 Bedroom	1,170	\$2,342	\$28,108	\$19,202	\$15,362	\$203,127	\$479,700	\$276,573
<b>Average Affordability Gap</b>								<b>\$187,066</b>

Notes:

- (a) Affordable rents are based on State of California Housing and Community Development FY 2014 Income Limits for San Mateo County. See Figure V-2.
- (b) Amount available for debt. Assumes 5% vacancy and collection loss and \$7,500 per unit per year for operating expenses and reserves based on recently built (2012-2014) and proposed affordable housing projects in the San Francisco Bay Area.
- (c) Assumes 1.25 Debt Coverage Ratio.
- (d) Assumes 6.38%, 30 year loan. Calculations based on annual payments.
- (e) Assumes \$410/SF for development costs based on comparable project pro formas.
- (f) Calculated as the difference between development costs and supportable debt.

Acronyms:

- SF: Square feet
- AMI: Area median income

Sources: Housing and Community Development, 2014; Selected San Mateo Rental Housing Pro Formas; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

Figure V-12. Housing Affordability Gap Calculation for For-Sale Condominium Housing

<b>Income Level and Unit Type</b>	<b>Unit Size (SF)</b>	<b>Affordable Sales Price (a)</b>	<b>Development Costs (b)</b>	<b>Affordability Gap (c)</b>
<b>Moderate Income (110% of AMI)</b>				
1 Bedroom	850	\$283,931	\$357,000	\$73,069
2 Bedroom	1,200	\$348,526	\$504,000	\$155,474
3 Bedroom	1,600	\$408,395	\$672,000	\$263,605
<b>Average Affordability Gap</b>				<b>\$164,049</b>

Notes:

(a) See calculation in Figure V-3.

(b) Assumes \$420/SF for development costs, based on recent condominium sales data.

(c) Calculated as the difference between development cost and affordable sales price.

Acronyms:

SF: Square feet

AMI: Area median income

Sources: DataQuick Sales Data, 2008-2012; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

Figure V-13. Average Housing Affordability Gap by Income Group

<b>Income Level</b>	<b>Rental Gap</b>	<b>Ownership Gap</b>	<b>Average Affordability Gap</b>
Very Low Income (50% AMI)	\$280,783	N/A	\$280,783
Low Income (70% - 80% AMI) (a)	\$240,477	N/A	\$240,477
Moderate Income (90% - 110% AMI) (b)	\$187,066	\$164,049	\$175,558

Notes:

(a) Low income households are defined at 70 percent of AMI for renters and 80 percent of AMI for owners.

(b) Moderate income households are defined at 90 percent of AMI for renters and 110 percent AMI for owners.

Acronyms:

AMI: Area median income.

Source: Vernazza Wolfe Associates, Inc. and Strategic Economics, 2015.

## VI. NEXUS FEES AND REQUIREMENTS

This section builds on the findings of the previous analytical steps to calculate maximum justified housing impact fees for each prototype.

### MAXIMUM FEE CALCULATION

To derive the maximum nexus-based fee, the housing affordability gap is applied to the number of lower-income worker households linked to the prototypes. This is the basis for developing an estimate of the total affordability gap for each prototype. The total gap for each prototype is then divided by the number of units in the development prototype to calculate a single maximum fee per unit.

Figure VI-1 presents the results of the nexus fee calculation for the single-family detached prototype. The per unit housing affordability gap number is multiplied by the number of income-qualified worker households linked to the prototype to estimate the total gap. The total affordability gap is then divided by the number of units in the prototype to derive the maximum fee per unit, estimated at \$51,531 per unit. The same steps are taken for the condominium and apartment prototypes to estimate the maximum fee per unit, as shown in Figures VI-2 and VI-3. The calculated maximum fees are \$39,874 per condominium unit, and \$45,508 per apartment unit.

The fees can also be calculated on per-square-foot basis by dividing the total gap by the net residential area for each prototype. The maximum fee per square foot is \$18 for the single-family detached prototype (Figure VI-4), \$32 for the condominium prototype (Figure VI-5), and \$37 per square foot for the apartment prototype (Figure VI-6).

The per-unit and per-square-foot fees shown in the tables below express the total nexus-based fees for new market-rate single-family detached, condominium and rental apartment development in Colma. They represent the maximum justified fees based on the nexus analysis that could be imposed on new development. The Town may adopt fees or require mitigations at a lower level than these justified fees, depending on financial feasibility and other policy considerations.

Figure VI-1. Maximum Per-Unit Fee for Single-Family Detached Prototype

Income Category	Average Affordability Gap (per Household)	Number Worker Households	Maximum Fee Revenues for Prototype	Number Units in Prototype	Total Fee Per Unit
Very Low Income (<=50% AMI)	\$280,783	0.0	\$0		
Low Income (51-80% AMI)	\$240,477	0.8	\$200,637		
Moderate Income (81-120% AMI)	\$175,558	1.8	\$314,674		
<b>Total</b>			\$515,311	10	\$51,531

Sources: California Housing and Community Development; Individual lenders; Affordable and market-rate project pro formas; DataQuick, 2014; RS Means, 2014; IMPLAN 3 via Applied Development Economics, 2015; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

Figure VI-2. Maximum Per-Unit Fee for Condominium Prototype

Income Category	Average Affordability Gap (per Household)	Number Worker Households	Maximum Fee Revenues for Prototype	Number Units in Prototype	Total Fee Per Unit
Very Low Income (<=50% AMI)	\$280,783	0.0	\$0		
Low Income (51-80% AMI)	\$240,477	1.0	\$243,949		
Moderate Income (81-120% AMI)	\$175,558	2.0	\$354,162		
<b>Total</b>			\$598,111	15	\$39,874

Sources: California Housing and Community Development; Individual lenders; Affordable and market-rate project pro formas; DataQuick, 2014; RS Means, 2014; IMPLAN 3 via Applied Development Economics, 2015; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

Figure VI-3. Maximum Per-Unit Fee for Apartment Prototype

Income Category	Average Affordability Gap (per Household)	Number Worker Households	Maximum Fee Revenues for Prototype	Number Units in Prototype	Total Fee Per Unit
Very Low Income (<=50% AMI)	\$280,783	0.0	\$0		
Low Income (51-80% AMI)	\$240,477	4.6	\$1,095,130		
Moderate Income (81-120% AMI)	\$175,558	9.3	\$1,635,348		
<b>Total</b>			\$2,730,478	60	\$45,508

Sources: California Housing and Community Development; Individual lenders; Affordable and market-rate project pro formas; DataQuick, 2014; RS Means, 2014; IMPLAN 3 via Applied Development Economics, 2015; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

Figure VI-4. Maximum Fee per SF for Single-Family Detached Prototype

Income Category	Average Affordability Gap (per Household)	Number Worker Households	Maximum Fee Revenues for Prototype	Net Residential Area (SF)	Total Fee Per SF
Very Low Income (<=50% AMI)	\$280,783	0.0	\$0		
Low Income (51-80% AMI)	\$240,477	0.8	\$200,637		
Moderate Income (81-120% AMI)	\$175,558	1.8	\$314,674		
<b>Total</b>			\$515,311	28,000	\$18

Sources: California Housing and Community Development; Individual lenders; Affordable and market-rate project pro formas; DataQuick, 2014; RS Means, 2014; IMPLAN 3 via Applied Development Economics, 2015; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

Figure VI-5. Maximum Fee per SF for Condominium Prototype

Income Category	Average Affordability Gap (per Household)	Number Worker Households	Maximum Fee Revenues for Prototype	Net Residential Area (SF)	Total Fee Per SF
Very Low Income (<=50% AMI)	\$280,783	0.0	\$0		
Low Income (51-80% AMI)	\$240,477	1.0	\$243,949		
Moderate Income (81-120% AMI)	\$175,558	2.0	\$354,162		
<b>Total</b>			\$598,111	18,700	\$32

Sources: California Housing and Community Development; Individual lenders; Affordable and market-rate project pro formas; DataQuick, 2014; RS Means, 2014; IMPLAN 3 via Applied Development Economics, 2015; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

Figure VI-6. Maximum Fee per SF for Apartment Prototype

Income Category	Average Affordability Gap (per Household)	Number Worker Households	Maximum Fee Revenues for Prototype	Net Residential Area (SF)	Total Fee Per SF
Very Low Income (<=50% AMI)	\$280,783	0.0	\$0		
Low Income (51-80% AMI)	\$240,477	4.6	\$1,095,130		
Moderate Income (81-120% AMI)	\$175,558	9.3	\$1,635,348		
<b>Total</b>			\$2,730,478	74,000	\$37

Sources: California Housing and Community Development; Individual lenders; Affordable and market-rate project pro formas; DataQuick, 2014; RS Means, 2014; IMPLAN 3 via Applied Development Economics, 2015; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

# INCLUSIONARY HOUSING REQUIREMENTS

In addition to establishing the maximum potential justified fee for new development projects, the nexus results described above can also be used to establish the percentage of inclusionary units under the Town’s current program. In Colma, the inclusionary requirements are that 20 percent of units in projects of 5 units or more must be affordable for very low, low and moderate income households. If the Town adopts a housing impact fee, it could replace its inclusionary zoning program with an impact fee program that still allows developers the option of providing affordable units; or it could continue to require on-site units in for-sale projects.

The principal way in which the equivalent inclusionary percentage can be estimated from the nexus analysis is by taking the total number of households requiring affordable housing (for each prototype) and dividing this number by the number of total units in each prototype. Figure VI-7 presents the results of this estimate. The analysis indicates that, on average, 23 percent of new units could be sold or rented and be consistent with the findings of this impact fee study. The nexus-based inclusionary percentage rate supports the Town’s existing inclusionary policy.

*Figure VI-7. Calculated Inclusionary Rates Based on Potential Housing Impact Fees*

	Households Requiring Affordable Housing	Total Units in Prototype	Calculated Inclusionary Rate
Single-Family Detached	2.6	10	26%
Condominiums	3.0	15	20%
Apartments	13.9	60	23%

Sources: Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

# SUMMARY OF CONSERVATIVE ASSUMPTIONS

The housing impact fee nexus analysis methodology utilizes conservative assumptions that result in a lower estimate of the nexus-supported maximum fee. Some of the conservative assumptions undertaken in the analysis include the following:

- **Prices and rental rates for new development.** Because there has been little new housing development completed in San Mateo County, the sale prices and rental rates for new market-rate housing are based on older market data. The rental rates and sale prices for projects that are coming on the market today are significantly higher. The use of lower prices and rents results reduces the total nexus fee calculation.
- **Economic impact analysis model.** The IMPLAN3 model only measures the impacts of new market-rate housing development in San Mateo County. It does not measure any of the impacts that could be occurring in other Bay Area counties. The economic impact analysis is modeled on a household income change approach, which adjusts for income taxes and savings when calculating the employment impacts of new households.
- **Cost estimates for affordability gap analysis.** The affordability gap analysis measures the difference between what households can afford to pay for housing and the cost of new housing units. To ensure that the gap is conservative, the development cost estimates are

based on the lower range of land and construction costs in San Mateo County. In many sub-areas of the county, including priority-development areas and downtown locations, land costs for housing sites may be higher, particularly under today's market conditions.

- **Exclusion of extremely low income households.** Although new market-rate housing development could potentially have impacts on affordable housing demand from extremely low income households, those impacts are not included in the analysis, thereby reducing the total fee calculation.
- **Affordability gap for owner households.** The calculation of the affordability gap for ownership households only considers moderate-income households. Low and very low income households are not considered in the calculation. This also results in a lower estimate of the maximum fee.
- **Feasibility analysis.** The analysis takes into account the financial feasibility of adding the maximum impact fee and reduced fee levels to the total cost of new development. The financial feasibility component of the analysis incorporates market-supportable assumptions about revenues, costs, land costs, and developer return expectations based on research on recent development trends. The results of financial analysis informed the final recommendations on the housing impact fee.
- **Comparison to other cities.** The Consultant Team researched existing impact fees and BMR policies in other nearby cities to determine the competitiveness of the maximum fee and reduced fee levels. The fee recommendations in this report incorporate the findings from the comparative analysis.
- **Overlap analysis.** The Town is undertaking two impact fee nexus studies at the same time: the commercial linkage fee nexus study and the housing impact fee nexus study. To minimize the potential that some jobs could be double-counted by including the same worker households in both studies, the Consultant Team ensured that the recommended fees for the two programs (commercial linkage and housing fees) would – when combined –mitigate less than 100 percent of the total impact.



## VII. FEASIBILITY AND POLICY CONSIDERATIONS

There are a number of policy considerations that can be taken into account when jurisdictions consider adopting an affordable housing impact fee on new market-rate development. These may include factors such as the likely impact of the proposed fee levels on local housing development, Colma’s competitiveness in attracting development relative to neighboring jurisdictions, the impact of the proposed fee on the existing fees for new development, and the role of the proposed fee in meeting the Town’s overall affordable housing objectives. This section provides a discussion of some of the key financial and policy questions for Colma.

### FINANCIAL FEASIBILITY ANALYSIS

#### Summary of Residential Prototypes

As discussed in more detail in Section III of this report, this nexus analysis is based on three residential prototypes: for-sale single-family detached units, for-sale condominiums, and rental apartments. Figure VII-1 summarizes the characteristics of the three development prototypes that were tested for financial feasibility. These prototypes are representative of the types of market rate housing development projects that can reasonably be expected in Colma. The single-family detached prototype is a 10-unit project with a density of seven units per acre. The homes are 2,800-square-foot four-bedroom units, with an average sale price of \$1,075,000. The condominium prototype is a Type V wood frame building with underground parking and a density of 50 units per acre. The average net residential area is 1,247 square feet per unit. The condominium units are one-, two- and three-bedrooms with sales prices ranging from \$406,000 to \$688,000, depending on unit size. The apartment building prototype is Type V wood frame construction, with podium parking and a density of 32 units per acre. The average net area per unit is 1,233 square feet. The unit mix consists of one-bedroom, two-bedroom, and three-bedroom units, with rents ranging from \$2,900 to \$4,100.

Figure VII-1. Residential Prototypes

Building Characteristics	Single-Family		
	Detached	Condominiums	Apartments
Building Type	Wood Siding	Type V	Type V
Total Residential Units (a)	10	15	60
Avg. Size Unit in Square Feet (SF)	2,800	1,247	1,233
Net Square Footage (NSF)	28,000	18,700	74,000
Parking Type	Attached Garage	Underground	Podium
Efficiency Factor (b)	85%	85%	65%
Gross Square Footage (GSF)	32,941	22,000	113,846
Floor Area Ratio (FAR) (c)	0.5	1.7	1.4
Land Area (SF)	65,882	12,941	81,319
Land Area (Acres)	1.51	0.30	1.87
Units per Acre	7	50	32

Notes:

(a) Unit characteristics are described in more detail in Section III.

(b) Ratio of leasable square footage to gross square footage.

(c) Floor area ratio (FAR) measures density by dividing gross building area by total site area.

Source: Vernazza Wolfe Associates, Inc. and Strategic Economics, 2015.

## Fee Levels

In order to provide Colma with guidance on how proposed fees could impact development decisions, the Consultant Team conducted a financial feasibility analysis that tested the impact of proposed fee options on developer profit. For each prototype, the financial feasibility of four fee scenarios was tested, including the maximum nexus-supported fee and three reduced fee levels.

Figure VII-2 demonstrates the fee scenarios for each prototype unit. The fees can also be calculated on per square foot basis, which are shown in Figure VII-3.

*Figure VII-2. Fee Levels per Unit for Prototypes*

Prototype	Net Residential SF per Unit	Scenario 1 (Maximum Fee)	Scenario 2	Scenario 3	Scenario 4
Single-Family Detached	2,800	\$51,531	\$28,000	\$19,600	\$14,000
Condominium	1,247	\$39,874	\$18,700	\$12,467	\$6,233
Apartments	1,233	\$45,508	\$18,500	\$12,333	\$6,167

Sources: Vernazza Wolfe Associates, Inc.; Strategic Economics, 2015.

*Figure VII-3. Fee Levels per Square Foot for Prototypes*

Prototype	Net Residential SF per Unit	Scenario 1 (Maximum Fee)	Scenario 2	Scenario 3	Scenario 4
Single-Family Detached	2,800	\$18	\$10	\$7	\$5
Condominium	1,247	\$32	\$15	\$10	\$5
Apartments	1,233	\$37	\$15	\$10	\$5

Sources: Vernazza Wolfe Associates, Inc.; Strategic Economics, 2015.

## Methodology

Financial feasibility of the fee options was tested using a pro forma model that measures the residual land value of a given development project. Many pro forma models are structured to solve for the financial return for the developer or investors (internal rate of return). In contrast, the residual land value method of analysis solves for the value of the land. This method recognizes that the value of land is inextricably linked to what can be built on it, and that development potential is heavily influenced by zoning, lot size/configuration, neighborhood context, and other factors. The pro forma model tallies all development costs (minus land) including direct construction costs, indirect costs (including financing), and developer fees. Revenues from unit sales or rental leases are then summed. The total project costs are then subtracted from the total project revenues. The balance is the residual value, representing the price a developer would pay for the land if pursuing that project. The fee levels were then added as an additional development cost to measure the effect on the residual land value.

## Revenues

To estimate income from residential development, the analysis uses the sales prices and monthly rents presented in Section III of this report and summarized in Figure VII-4. These revenue assumptions were based on a review of local and regional market data, including information on the type of development that has been recently constructed or is planned or proposed in Colma; and current sales prices and rental rates of recently built (or sold) residential development in neighboring cities. For single-family detached and condominium projects, the revenues are calculated by multiplying the unit count by the sales price. The average value of single-family detached units is \$1,075,000 and

condominium units are estimated at values between \$406,000 and \$688,000, depending on size. For rental projects, the revenues were estimated using an income capitalization approach. This valuation approach first estimates the annual net operating income (NOI) of the apartment prototype, which is the difference between total project income (annual rents) and project expenses, including operating costs<sup>22</sup> and vacancies. The NOI is then divided by the capitalization rate (cap rate) to derive total project value. Figure VII-5 summarizes the calculations and data source used for estimating the value of the apartment prototype.

*Figure VII-4. Sales Prices and Rents for Single-Family Detached, Condominium and Apartment Prototypes*

<b>Prototype</b>	<b>Unit Type</b>	<b>Number of Units</b>	<b>Net Area (SF)</b>	<b>Unit Sales Price/ Monthly Rent</b>	<b>Price or Rent per SF</b>
<b>Single-Family Detached (For-Sale)</b>					
Wood siding wood frame	4 BD/2.5 BA	10	2,800	\$1,075,000	\$384
7 units per acre					
Attached garage					
Net Residential Area (Net SF)			28,000		
<b>Condominiums (For-Sale)</b>					
Type V wood frame	1 BD/1 BA	4	900	\$406,000	\$451
50 units per acre	2 BD/2 BA	6	1,200	\$489,000	\$408
Subterranean parking	3 BD/2 BA	2	1,400	\$550,000	\$393
	3 BD/2.5 BA	3	1,700	\$688,000	\$405
Net Residential Area (Net SF)			18,700		
Average Net SF per Unit			1,247		
<b>Apartments (Rental)</b>					
Type V wood frame	1 BD/1 BA	20	900	\$2,900	\$3.22
32 units per acre	2 BD/2 BA	20	1,200	\$3,300	\$2.75
Podium parking	3 BD/2 BA	20	1,600	\$4,100	\$2.56
Net Residential Area (Net SF)			74,000		
Average Net SF per Unit			1,233		

Sources: Strategic Economics & Vernazza Wolfe Associates, Inc., 2014.

<sup>22</sup> Operating costs were calculated based on the Institute of Real Estate Management Survey of Apartment Buildings in the San Francisco Metropolitan Statistical Area (MSA).

Figure VII-5. Apartment Revenue Calculations

<b>Apartment Revenues</b>	<b>Calculation</b>	<b>Total</b>
Gross Annual Rental Income (a)	Gross annual rents	\$2,472,000
Operating Expenses (b)	30 percent of income	(\$741,600)
Vacancy (c)	5 percent of income	(\$123,600)
Annual Net Operating Income (c)	Income less expenses and vacancy	\$1,606,800
Capitalization Rate (d)	5 percent	5.00%
Capitalized Value	Project value	\$32,136,000

Notes:

(a) Average monthly rents multiplied by 12 months multiplied by unit count for each unit type.

(b) Institute of Real Estate Management, San Francisco MSA Apartment Properties, 2011.

(c) Assumes a vacancy rate of 5 percent in a stabilized rental market.

(d) According to DTZ's San Francisco Real Estate Forecast 2015, the cap rate for apartments is approximately 5 percent.

Sources: IREM, DTZ, Strategic Economics, 2015.

## Development Costs

Cost estimates for the residential prototypes include direct construction costs (site work, building costs, and parking), indirect costs, financing costs, and developer overhead and profit. Development cost estimates for the pro forma analysis are distinct from the cost estimates provided in the countywide affordability gap analysis. Direct building construction cost estimates are based on RS Means and project pro formas for recent projects in San Mateo County.<sup>23</sup> Soft costs and developer overhead/profit were calculated based on a review of similar project pro formas in the Bay Area. Colma's fee calculations were provided by Town staff. Each of the cost factors used in the analysis is summarized in Figure VII-6.

<sup>23</sup> The development cost estimates used in the pro forma analysis are slightly different from those used in the affordability gap analysis because they include more recent real estate data, and are more tailored for Colma and Northern San Mateo County, rather than an overall estimate for the entire county. Furthermore, the market-rate units are generally larger and costlier to build than the "modest" units described in the affordability gap analysis.

Figure VII-6. Development Cost Factors

Development Costs	Metric	
Direct Costs (a)		
Single-Family Subdivision	\$155	Per NSF
Condominiums	\$225	Per NSF
Apartments	\$210	Per NSF
Indirect Costs (b)		
A&E & Consulting	6.00%	of direct costs
Permits & Fees (Excl. Housing) (c)		estimated by Town
Taxes, Insurance, Legal & Accounting	3.00%	of direct costs
Other (d)	3.00%	of direct costs
Contingency	5.00%	of indirect costs
Total Indirect Costs		
Financing Costs (b)		
Loan to Cost Ratio (LTC)	80%	of total costs
Loan Interest Rate	6%	annual rate
Compounding Period	12	months
Construction/Absorption Period (e)	12 to 24	months
Utilization Rate	55%	of loan
Loan Fees	2%	of loan
Developer Overhead & Profit	12%	of total costs (excl. land)

Notes:

(a) Direct costs include site work, building construction, and parking costs of \$30,000 per space for underground parking and \$25,000 per space for podium parking. Costs estimates are based on review of Bay Area pro formas for similar projects and data from RS Means.

(b) Based on review of similar project pro formas in the Bay Area and interviews with developers.

(c) Permits & fees are a generalized estimate of costs based on prototypes, calculated by Town staff. Permits and fees for actual projects vary depending on many factors.

(d) Other soft costs include marketing, personal property, environmental studies, etc.

(e) Absorption periods are estimated at 24 months for apartments, condominiums and townhouses; and 18 months for single-family subdivisions.

Sources: RS Means, 2014; Similar pro formas; Colma Staff, 2015; Strategic Economics, 2015.

## Land Value

In order to understand what the different fee levels indicate regarding financial feasibility, the residual land values for each fee scenario can be compared with the market value of residential land in Colma. If the residual value is higher than the market value, the project is feasible. If the residual value is lower than the market price, then the project is infeasible.

To determine the land value of sites zoned for lower density uses (single-family detached) and higher density multi-family residential uses (condominiums and rental apartments), the Consultant Team analyzed recent sales transactions in Northern San Mateo County and reviewed third-party property appraisals.<sup>24</sup> Figure VII-7 illustrates the results of the land value analysis for lower density single-family detached residential uses, while Figure VII-8 shows the value of properties zoned for higher density multi-family residential uses. For lower density residential uses, values range considerably depending on location and size, from \$38 per square foot for the lower quartile, to \$74 per square foot for the upper quartile. For higher-density multi-family housing, the range is between \$75 and \$150 per square foot, with the maximum value at \$161 per square foot. For this analysis, the estimated land value is \$35 to \$75 for lower density sites, and between \$75 and \$175 per square foot for higher density multi-family development, including condominiums and apartments. For all prototypes, the market value of land is presented as a range because the land value of properties is likely to vary depending on location, size, and other conditions.

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<sup>24</sup> The land value assumptions utilized in the pro forma analysis are different from the affordability gap analysis in two ways: 1) they include more recent transactional data than the affordability gap analysis, which was completed in July 2014; and 2) they are tailored to Colma and Northern San Mateo County, unlike the affordability gap estimate, which is a countywide estimate.

Figure VII-7. Single-Family Vacant Land Sales Transactions in Northern San Mateo County

Address	City	Sale Price	Lot Area	Price/ SF Land
100 Santa Clara St	Brisbane	\$310,100	5,300	\$58.51
1076 Humboldt Rd	Brisbane	\$380,000	5,000	\$76.00
8 Humboldt Ct	Brisbane	\$390,000	5,169	\$75.45
316 Humboldt Rd	Brisbane	\$130,000	4,787	\$27.16
326 Humboldt Rd	Brisbane	\$130,000	4,737	\$27.44
345 Kings Rd	Brisbane	\$115,000	5,170	\$22.24
30 Hermosa Ave	Millbrae	\$890,000	8,175	\$108.87
2880 San Bruno Ave W	San Bruno	\$1,558,500	25,700	\$60.64
2890 San Bruno Ave W	San Bruno	\$1,242,000	20,473	\$60.67
173 San Benito Ave	San Bruno	\$410,000	11,340	\$36.16
B St 1	South San Francisco	\$830,000	5,082	\$70.42
B St 1	South San Francisco	\$830,000	6,705	\$70.42
52 Franklin Ave	South San Francisco	\$360,000	8,379	\$42.96
806 Baden Ave	South San Francisco	\$425,000	5,600	\$75.89
<b>Summary Statistics</b>				
Lower Quartile (25%)				\$37.86
Median Value				\$60.65
Upper Quartile (75%)				\$74.19

Source: CoreLogic, 2015; Strategic Economics, 2015.

Figure VII-8. Multi-Family Vacant Land Sales Transactions in Northern San Mateo County, 2010-2014

<b>Site Address</b>	<b>Location</b>	<b>Price</b>	<b>Lot Area</b>	<b>Price/ SF Land</b>
1309 Mission Rd	South San Francisco	\$1,575,000	17,424	\$90
606 Railroad	South San Francisco	\$365,000	6,600	\$55
6774 Mission St	Daly City	\$395,000	5,278	\$75
508 Peninsula Avenue	Burlingame	\$750,000	5,000	\$150
370 F Street	San Mateo County	\$7,000,000	43,560	\$161
<b>Summary Statistics</b>				
Lower Quartile (25%)				\$75
Median Value				\$90
Upper Quartile (75%)				\$150

Source: Property appraisals; DataQuick, 2015; Loopnet, 2015; Strategic Economics, 2015



## Financial Feasibility Results

Figures VII-10 and VII-11 provide the pro forma for the single-family detached, condominium and apartment prototypes. Below is a discussion of the findings.

### Single-Family Detached

The feasibility analysis indicates that at current market prices, without the addition of new impact fees, the single-family detached prototype would have revenues of \$10.75 million, with a total development cost of \$6.39 million. The difference between the revenues and costs is the residual land value, which is estimated at \$66 per square foot. This prototype, with no additional impact fees, yields a residual land value within the threshold range for feasibility in Colma, which is between \$35 and \$75 per square foot.

The results of the analysis show that all of the fee levels tested, including the maximum fee level, are financially feasible. The following summarizes the findings in more detail:

- The maximum impact fee of \$18 per square foot raises development costs from \$6.39 million to \$6.9 million. This cost increase results in a residual land value of \$58 per square foot.
- Scenario 2, an impact fee set at \$10 per square foot increases development costs to \$6.67 million. The residual land value under this scenario is \$62 per square foot.
- Scenario 3, a fee level of \$7 per square foot increases development costs to \$6.58 million. The residual land value under this fee scenario is \$63 per square foot.
- A fee level set at \$5 per square foot results in total development costs of \$6.53 million, and a residual land value of \$64 per square foot.

### Condominiums

The feasibility analysis shows that without new impact fees, the condominium prototype would have revenues of \$7.72 million, with a total development cost of \$7.27 million. The difference between the revenues and costs is the residual land value, which is estimated at \$35 per square foot. This residual land value is under the current value for multi-family land in Colma, which ranges from \$75 to \$175 per square foot. However, it is possible that a condominium development with higher sales prices could be financially feasible. Because the financial feasibility results for the condominium prototype may change over time depending on market conditions, the analysis compared the financial feasibility of the residential impact fee scenarios with 2014 prices (which the nexus analysis is based on), and with increased sales prices. According to the analysis, a 5 percent increase in condominium sales prices would not be sufficient to allow for a residential impact fee to be financially feasible. However, a 10 percent increase in condominium sales prices would allow a residential impact fee of \$10 per square foot to be financially feasible (Figure VII-9 below).

The financial feasibility analysis also measures the fee as a share of total development costs as an indicator of the financial burden of the fee on new development. The analysis indicates that the maximum fee of \$32 per square foot would represent 8.2 percent of total development costs. The lowest fee scenario of \$5 per square foot makes up only one percent of total development costs, a relatively modest cost factor for this prototype. The following describes the results for each fee scenario in more detail.

- The full justified impact fee of \$32 per square foot raises development costs from \$7.27 million to \$7.87 million. This fee level represents 8.2 percent of total development costs

- Scenario 2, a reduced impact fee set at \$15 per square foot, raises development costs to \$7.55 million. The Scenario 2 fee level corresponds to 3.9 percent of total development costs.
- Scenario 3, a nexus fee at \$10 per square foot, results in total development costs of \$7.46 million. This fee scenario is approximately 2.6 percent of total development costs.
- Scenario 4 (\$5 per square foot) results in a total development cost of \$7.36 million for the prototype, and makes up 1.3 percent of total development costs.

### **Apartments**

For apartments, the financial analysis shows that under current market conditions, without a housing impact fee, the development costs for the apartment prototype is approximately \$25.18 million, and total project value is \$32.14 million. The residual land value is estimated at \$85 per square foot, which is consistent with the current market value of multi-family land in Colma.

According to the pro forma analysis, the maximum fee level for the apartment prototype is not financially feasible. Under 2014 market conditions, Scenario 3 (a fee of \$10 per square foot) is the highest fee level that would be financially feasible for this prototype. The following provides more detail on the results of the analysis:

- Scenario 1, the maximum nexus fee of \$37 per square foot brings total development costs up to nearly \$27.91 million. This cost increase results in a residual land value of \$52 per square foot, which is not currently financially feasible.
- Scenario 2, a nexus fee of \$15 per square foot, increases development costs to \$26.29 million. The residual land value is \$72 per square foot, which is just under the threshold for financial feasibility.
- Under Scenario 3, a housing impact fee level of \$10 per square foot, development costs reach \$25.92 million. This fee scenario results in a residual land value of \$76 per square foot.
- Scenario 4, a fee level of \$5 per square foot increases development costs to \$25.55 million, resulting in a residual land value of \$81 per square foot.

As with the condominium prototype, the financial feasibility results for the apartment prototype may be different with increased rental rates. As shown in Figure VII-9, an increase in rents of five percent would make a fee of \$15 per square foot feasible, while an increase of ten percent in rental rates would make the maximum fee of \$37 per square foot financially feasible for the apartment prototype.

*Figure VII-9. Financial Feasibility Results with Increased Condominium Prices and Apartment Rents*

<b>Revenue Scenario</b>	<b>Condominiums</b>	<b>Apartments</b>
2014 Rents/Prices	\$0	\$10
5% Increase in Rents/ Prices	\$0	\$15
10% Increase in Rents/ Prices	\$10	\$37 (maximum)

Sources: Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

Figure VII-10. Pro Forma Model Results for Single-Family Detached Prototype

	<b>Single-Family Detached</b>	
<b>Development Costs (Excl. Land &amp; Nexus Fee)</b>	<b>per Unit</b>	<b>Total</b>
Direct Costs (a)		
Building & On-Site Improvements	\$434,000	\$4,340,000
Building & Onsite per NSF		\$155
Parking	Incl. above	Incl. above
Total Direct Costs	\$434,000	\$4,340,000
Total Direct Costs per NSF		\$155
Indirect Costs (a)		
A&E & Consulting	\$26,040	\$260,400
Permits & Fees (Excl. Nexus fee) (b)	\$55,595	\$555,945
Taxes, Insurance, Legal & Accounting	\$13,020	\$130,200
Other Indirect Costs	\$13,020	\$130,200
Contingency	\$5,384	\$53,837
Total Indirect Costs	\$113,058	\$1,130,582
Financing Costs (a)	\$23,195	\$231,953
Developer Overhead & Profit (a)	\$68,430	\$684,304
<b>Total Development Costs</b>	<b>\$638,684</b>	<b>\$6,386,839</b>
<b>Total Development Costs (per NSF)</b>		<b>\$228</b>
<b>Income</b>		
Gross Income/Sales Proceeds	\$1,075,000	\$10,750,000
Less: Operating/Sales Expenses & Vacancy		
Net (Operating or Sales) Income	\$1,075,000	\$10,750,000
<b>Capitalized Value/Sales Value (c)</b>	<b>\$1,075,000</b>	<b>\$10,750,000</b>
<b>Residual Land Value Analysis</b>		
Total Development Costs (TDC) Except Land With Various Levels of Nexus Fee	<b>Nexus Fee per NSF</b>	<b>TDC incl. Nexus Fee</b>
No Fee	\$0	\$6,386,839
Scenario 1: Max Fee	\$18	\$6,902,150
Scenario 2	\$10	\$6,666,839
Scenario 3	\$7	\$6,582,839
Scenario 4	\$5	\$6,526,839
Residual Land Value per Sq. Ft. at Various Nexus Fee Levels	<b>Nexus Fee per NSF</b>	<b>Residual Land Value per SF</b>
No Fee	\$0	\$66
Scenario 1: Max Fee	\$18	\$58
Scenario 2	\$10	\$62
Scenario 3	\$7	\$63
Scenario 4	\$5	\$64
Nexus Fee as Percentage of Total Development Costs	<b>Nexus Fee per NSF</b>	<b>Fee as % of TDC</b>
No Fee	\$0	0.00%
Scenario 1: Max Fee	\$18	7.47%
Scenario 2	\$10	4.20%
Scenario 3	\$7	2.98%
Scenario 4	\$5	2.14%
<b>Current Land Values/ Threshold for Feasibility</b>		<b>\$35 - \$75</b>

Notes:

(a) See Figure VII-5.

(b) This represents a generalized estimate of the fee and permit costs for each prototype, calculated by Town of Colma staff. Actual fee and permit costs for development projects will vary depending on many factors.

(c) See Figure VII-4.

Acronyms:

SF: square feet

NSF: net square foot

TDC: total development costs

Source: Strategic Economics, 2015.

Figure VII-11. Pro Forma Model Results for Condominium and Apartment Prototypes

	Condominiums		Apartments	
<b>Development Costs (Excl. Land &amp; Nexus Fee)</b>	<b>per Unit</b>	<b>Total</b>	<b>per Unit</b>	<b>Total</b>
Direct Costs (a)				
Building & On-Site Improvements	\$280,500	\$4,207,500	\$259,000	\$15,540,000
Building & Onsite per NSF		\$225		\$210
Parking	Incl. above	Incl. above	\$37,500	\$2,625,000
Total Direct Costs	\$325,500	\$4,882,500	\$296,500	\$17,790,000
Total Direct Costs per NSF		\$261		\$240
Indirect Costs (a)				
A&E & Consulting	\$19,530	\$292,950	\$17,790	\$1,067,400
Permits & Fees (Excl. Nexus fee) (b)	\$46,277	\$694,151	\$15,911	\$954,652
Taxes, Insurance, Legal & Accounting	\$9,765	\$146,475	\$8,895	\$533,700
Other Indirect Costs	\$9,765	\$146,475	\$8,895	\$533,700
Contingency	\$4,267	\$64,003	\$2,575	\$154,473
Total Indirect Costs	\$89,604	\$1,344,054	\$54,065	\$3,243,925
Financing Costs (a)	\$17,600	\$264,006	\$24,119	\$1,447,134
Developer Overhead & Profit (a)	\$51,924	\$778,867	\$44,962	\$2,697,727
<b>Total Development Costs</b>	<b>\$484,628</b>	<b>\$7,269,427</b>	<b>\$419,646</b>	<b>\$25,178,786</b>
<b>Total Development Costs (per NSF)</b>		<b>\$389</b>		<b>\$340</b>
<b>Income</b>				
Gross Income/Sales Proceeds	\$514,800	\$7,722,000	\$41,200	\$2,472,000
Less: Operating/Sales Expenses & Vacancy			\$14,420	\$865,200
Net (Operating or Sales) Income	\$514,800	\$7,722,000	\$26,780	\$1,606,800
<b>Capitalized Value/Sales Value (c)</b>	<b>\$514,800</b>	<b>\$7,722,000</b>	<b>\$535,600</b>	<b>\$32,136,000</b>
<b>Residual Land Value Analysis</b>				
Total Development Costs (TDC) Except Land With Various Levels of Nexus Fee	<b>Nexus Fee per NSF</b>	<b>TDC incl. Nexus Fee</b>	<b>Nexus Fee per NSF</b>	<b>TDC incl. Nexus Fee</b>
No Fee	\$0	\$7,269,427	\$0	\$25,178,786
Scenario 1: Max Fee	\$32	\$7,867,538	\$37	\$27,909,264
Scenario 2	\$15	\$7,549,927	\$15	\$26,288,786
Scenario 3	\$10	\$7,456,427	\$10	\$25,918,786
Scenario 4	\$5	\$7,362,927	\$5	\$25,548,786
Residual Land Value per Sq. Ft. at Various Nexus Fee Levels	<b>Nexus Fee per NSF</b>	<b>Residual Land Value per SF</b>	<b>Nexus Fee per NSF</b>	<b>Residual Land Value per SF</b>
No Fee	\$0	\$35	\$0	\$85
Scenario 1: Max Fee	\$32	-\$11	\$37	\$52
Scenario 2	\$15	\$13	\$15	\$72
Scenario 3	\$10	\$21	\$10	\$76
Scenario 4	\$5	\$28	\$5	\$81
Nexus Fee as Percentage of Total Development Costs	<b>Nexus Fee per NSF</b>	<b>Fee as % of TDC</b>	<b>Nexus Fee per NSF</b>	<b>Fee as % of TDC</b>
No Fee	\$0	0.00%	\$0	0.00%
Scenario 1: Max Fee	\$32	8.23%	\$37	9.78%
Scenario 2	\$15	3.86%	\$15	4.22%
Scenario 3	\$10	2.57%	\$10	2.86%
Scenario 4	\$5	1.29%	\$5	1.45%
<b>Current Land Values/ Threshold for Feasibility</b>		<b>\$75 - \$175</b>		<b>\$75 - \$175</b>

Notes:

(a) See Figure VII-5.

(b) This represents a generalized estimate of the fee and permit costs for each prototype, calculated by Town of Colma staff. Actual fee and permit costs for development projects will vary depending on many factors.

(c) See Figure VII-4.

Acronyms:

SF: square feet

NSF: net square foot

TDC: total development costs

Source: Strategic Economics, 2015.

## ADDITIONAL POLICY CONSIDERATIONS

While the nexus study provides the necessary economic analysis for the residential impact fees, it is up to policymakers to decide what percentage of the maximum fee to charge on new development. Financial feasibility is one important factor to examine. In addition, there are a number of other policy issues to consider, such as:

- How much total residential fees would increase with a new residential impact fee;
- How a residential impact fee in Colma would compare with those in neighboring jurisdictions, and
- How a residential impact fee fits into Colma's overall housing strategy.

A discussion of each of these topics is presented below.

### **Comparison to Existing Fees on Residential Development**

Figure VII-12 presents information on the building and permit fees that Colma currently charges on new housing development, excluding the potential residential impact fee. The fee calculations are estimates based on the prototype descriptions, and do not necessarily represent the actual fees charged to specific projects.

Colma's existing fees (excluding the nexus fees) for the residential prototypes are estimated to range from approximately \$16,000 for an apartment unit to \$56,000 for a single-family detached unit.<sup>25</sup> Adding the nexus-based residential impact fees at various levels to existing fees increases the total fees significantly, as presented in Figure VII-12.

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<sup>25</sup> The fee estimates presented above represent the best approximations available from the Town of Colma.

Figure VII-12. Colma Total Residential Fees under Selected Fee Scenarios

	Single-Family Detached	Condominiums	Apartments
Number of Units in Prototype	10	15	60
Total Existing Fees and Permits for Prototype (Excluding Nexus Fees)	\$555,945	\$694,151	\$954,652
Existing Fees and Permits per Unit (Excluding Nexus Fees)	\$55,595	\$46,277	\$15,911
Existing Fees and Permits per SF	\$20	\$37	\$13
Fee Scenario 1: Maximum Fees			
Nexus Fee Per Unit	\$51,531	\$39,874	\$45,508
Total Nexus Fees for Prototype	\$515,311	\$598,111	\$2,730,478
Combined Existing and Nexus Fees for Prototype	\$1,071,256	\$1,292,262	\$3,685,130
Combined Fees Per Unit	\$107,126	\$86,151	\$61,419
Combined Fees Per SF	\$38	\$69	\$50
Fee Scenario 2			
Nexus Fee Per Unit	\$28,000	\$18,700	\$18,500
Total Nexus Fees for Prototype	\$280,000	\$280,500	\$1,110,000
Combined Existing and Nexus Fees for Prototype	\$835,945	\$974,651	\$2,064,652
Combined Fees Per Unit	\$83,595	\$64,977	\$34,411
Combined Fees Per SF	\$30	\$52	\$28
Fee Scenario 3			
Nexus Fee Per Unit	\$19,600	\$12,467	\$12,333
Total Nexus Fees for Prototype	\$196,000	\$187,000	\$740,000
Combined Existing and Nexus Fees for Prototype	\$751,945	\$881,151	\$1,694,652
Combined Fees Per Unit	\$75,195	\$58,743	\$28,244
Combined Fees Per SF	\$27	\$47	\$23
Fee Scenario 4			
Nexus Fee Per Unit	\$14,000	\$6,233	\$6,167
Total Nexus Fees for Prototype	\$140,000	\$93,500	\$370,000
Combined Existing and Nexus Fees for Prototype	\$695,945	\$787,651	\$1,324,652
Combined Fees Per Unit	\$69,595	\$52,510	\$22,078
Combined Fees Per SF	\$25	\$42	\$18

Sources: Town staff, 2015; Strategic Economics, Inc; Vernazza Wolfe Associates, Inc., 2015.

## Comparison to Neighboring Jurisdictions

A comparison of the housing impact fee scenarios in Colma to those currently in place in other San Mateo and Santa Clara County jurisdictions were considered as part of the policy analysis. This comparison is challenging, because most cities in San Mateo County are conducting a residential impact fee nexus study at this time, and may decide to adopt new fees or update existing fees. Nevertheless, based on the analysis of existing fees shown in Figure VII-12, Colma's maximum fee

level for single family detached units of \$18 per square foot would be significantly lower than the fees charged in East Palo Alto and San Carlos, and slightly higher than in neighboring Daly City and Cupertino. The maximum fee levels for the condominium units of \$32 square foot are higher than the housing impact fees currently charged in Daly City, Cupertino, East Palo Alto, and San Carlos. The maximum housing impact fee of \$37 per square foot for apartments is higher than those in Daly City and Cupertino, and significantly higher than the fees in Mountain View, Sunnyvale, and San Jose, which are \$17 per square foot.

Figure VII-13. Comparison with Fees in Neighboring Jurisdictions

	Single Family Detached	Condominiums	Apartments	Date Fee Was Adopted
<b>Colma Fee Scenarios</b>				
Scenario 1 - Maximum Fee				N/A
Per SF	\$18	\$32	\$37	
Per Unit	\$51,531	\$39,874	\$45,508	
Scenario 2				N/A
Per SF	\$10	\$15	\$15	
Per Unit	\$28,000	\$18,700	\$18,500	
Scenario 3				N/A
Per SF	\$7	\$10	\$10	
Per Unit	\$19,600	\$12,467	\$12,333	
Scenario 4				N/A
Per SF	\$5	\$5	\$5	
Per Unit	\$14,000	\$6,233	\$6,167	
<b>Impact Fees</b>				
Cupertino	\$15/SF	\$20/SF	\$25/SF	2015
Daly City	\$14/SF	\$22/SF	\$25/SF	2014
East Palo Alto	\$24/SF	\$23-\$44/SF (c)	\$23/SF	2014
Mountain View	N/A	N/A	\$15/SF	2015
San Carlos (b)	\$24-\$44/SF	\$21-\$42/SF	\$24-\$44/SF	2010
San Jose	N/A	N/A	\$17/SF (e)	2014
Sunnyvale	N/A	N/A	\$17/SF (f)	2015
<b>Inclusionary Policies and In-Lieu Fees</b>				
Mountain View	3% of Sales Price	3% of Sales Price	N/A	2015
San Jose (e)	Inclusionary @15% or \$17/SF	Inclusionary @15% or \$17/SF in-lieu fee	N/A	2014
Sunnyvale	7% of Sales Price	7% of Sales Price	N/A	2015

Notes:

- (a) Fee ranges from \$22 per square foot for for-sale housing without structured parking to \$44 per square foot for housing with structured parking.
- (b) Fees shown as ranges. Actual fees charged depend on project size.
- (c) Fee goes into effect in 2016. Developments approved by July 2016 are exempt with a longer exemption for downtown development.
- (d) Fees for projects that are between 4 and 7 units pay 50 percent of this fee.
- (e) Inclusionary policy and in-lieu fee apply to for-sale developments of more than 20 units.

Sources: The Non-Profit Housing Association of Northern California; City of San Carlos Municipal Code; Vernazza Wolfe Associates, Inc; Strategic Economics, 2015.



The potential fee scenarios can also be compared with existing residential impact fees in other Bay Area counties for regional context. This list is not an exhaustive inventory of all Bay Area cities with residential impact fees, but it provides information for much of the region. As shown in Figure VII-14, impact fees in other Bay Area cities vary significantly from city to city. Some of these cities charge higher residential impact fees than for the maximum fees in Colma, and some charge lower fees.

Figure VII-14. Existing Housing Impact Fees in Bay Area Cities

City	Project Type	Amount
Berkeley	Rental Development	\$28,000 per unit (\$8,000 discount for eligible projects)
Emeryville	Rental Residential Projects	\$20,000 per dwelling unit
Fremont	For-Sale and Rental Development	\$19.50 per habitable SF \$22.50 per habitable SF for single family homes on lots 6,000 SF or greater.
Livermore	For-Sale and Rental Development	Based on type of dwelling produced
Napa	For Sale and Rental Development	Single Family: \$ 2.20 per SF Condo: \$2.20 per SF Rental: \$3.75 per sq.
Pleasanton	For-Sale and Rental Development	Single Family (over 1,500 SF): \$10,880 per unit Single Family (1,500 SF or less) and Multi-family (Apt. or Condo): \$2,696 per unit Adjusted annually based on CPI
San Francisco	Any housing project that consists of five or more units	\$199,698 per studio unit \$270,411 per 1 bedroom unit \$367,711 per 2 bedroom unit \$419,621 per 3 bedroom unit \$522,545 per 4 bedroom unit
Santa Rosa	For-Sale and Rental Development	2.5% of sale price of for-sale units. Based on SF for rentals

Sources: The Non-Profit Housing Association of Northern California, Strategic Economics, and Vernazza Wolfe Associates, Inc, 2015.

## Role of Fees in Overall Housing Strategy

Colma adopted an inclusionary zoning ordinance in 2006, but it has never been implemented, since no new housing units have been developed in the Town during the recession. Colma does not have a residential impact fee program or commercial linkage fee program. Colma’s inclusionary zoning ordinance requires that new residential development of five units or more restrict at least 20 percent of the total units for occupancy by lower income households. This requirement established goals of affordability, stipulating that 40 percent of the required inclusionary units be affordable to very low-income households and 20 percent of the inclusionary units be affordable to low-income households. It is the Town’s preference for units to be built on-site, since the Town does not have a housing program or housing staff needed to implement an affordable housing development program. However, for projects between five and 11 units, developers have the option of paying an in-lieu fee.

If Colma adopts a new residential impact fee, the revenues could be used either to create a new citywide fund or could be contributed to a countywide fund, such as HEART. The existence of additional local revenue sources such as the residential impact fees can help make certain projects more competitive for outside funding. Revenues generated from a residential impact fee must be spent on housing that benefits the workforce, since the funds stem from affordable housing impacts

related to new employment. Furthermore, the funds must target very low, low, and moderate income households, the income groups that are included in this nexus study.

The revenues to be collected from a residential impact fee provide an important source of local funding; however, fee revenues do not generally cover the entire funding gap encountered by sponsors of new affordable housing. Additional funding from a variety of sources will remain critical. These funding sources typically include public subsidies from San Mateo County, equity from the Low Income Housing Tax Credits, and financing from conventional lenders.

## **Potential for Overlap Between Residential and Commercial Fees**

The Town of Colma is also undertaking a commercial linkage nexus study simultaneous to this effort, and may soon adopt a commercial linkage fee in addition to the residential impact fee considered in this report. If the Town does intend to adopt both fees, it is important to determine whether there is any overlap between the two impact fees, resulting in potential “double-counting” of impacts.

The commercial linkage fee study examined jobs located in new commercial buildings including office/ R&D/ medical office buildings, retail/ restaurants/ services, and hotels. The nexus analysis then calculated the average wages of the workers associated with each commercial building to derive the annual income of the new worker households. The analysis determined the area median income (AMI) level of the new worker households to identify the number of worker households that would require affordable housing.

The housing impact fee nexus analysis examined households buying or renting new market rate units in the jurisdiction. The household expenditures by these new residents have an economic impact in the county, which can be linked to new jobs. The nexus analysis quantified the jobs linked to new household spending, and then calculated the wages of new workers and the household incomes of new worker households. Each worker household was then categorized by AMI level to determine the number of households that require affordable housing.

There may be a share of jobs counted in the commercial linkage fee analysis that are also included in the residential nexus analysis, particularly those in the service sector. Other types of jobs counted in the residential nexus analysis are unique to that analysis, and are not included in the commercial linkage fee analysis (for example, public sector employees). The commercial linkage fee analysis is limited to new development in private sector office/ R&D/ medical office buildings, hotels, and retail/ restaurants/ services space.

There is potential that some jobs could be counted in both analyses, and that the two programs may overlap in mitigating the affordable housing demand from the same worker households. Each of the proposed fees is required to mitigate no more than 100 percent of the demand for affordable units by new worker households. In order to reduce the potential for overlap between the two programs, it is advisable to set both the commercial linkage fees and housing impact fees at below 100 percent of the nexus-based maximum. In this way, when combined, the programs would mitigate less than 100 percent of the impact even if there were overlap in the jobs counted in the two nexus analyses.

## **Administrative Issues**

When adopting a Housing Impact Fee, there are several administrative issues to consider. First, does the Town want to encourage smaller units? By charging lower fees for smaller units, it is possible that it could encourage development of smaller units.

Secondly, similar to any impact fee, it will be necessary to adjust the housing impact fees on an annual basis. Adjustments are also needed due to possible changes in the affordability gap. However, the connection between new residential construction and growth in employment derived from the IMPLAN3 Model is unlikely to change in the short run.

It is advisable that the Town adjusts its housing impact fee annually by using an annual adjustment mechanism. An adjustment mechanism updates the fees to compensate for inflation in development costs. To simplify annual adjustments, it is recommended that the Town select a cost index that is routinely published. While there is no index that tracks changes in Colma's development costs, including land, specifically, there are a few options to consider.

- The first option is the Consumer Price Index (CPI) Shelter component. The shelter component of the CPI covers costs for rent of primary residence, lodging away from home, owner's equivalent rent of primary residence, and household insurance. Of the total shelter index, costs associated with the owner's equivalent rent of primary residence constitute 70 percent of total costs entered into the index.
- A second option to adjust the fee for annual inflation is the construction cost index published in the Engineering News Record (ENR). This index is routinely used to update other types of impact fees. Cost index information for the San Francisco region, the smallest geographical area available for this purpose, is available on an annual basis. The ENR cost index measures inflation in construction costs, but it does not incorporate changes in land costs or public fees charged on new development.

Because these indices are readily available, reliable, and relatively simple to use, it is recommended that Colma use these indices for annual adjustments. However, because both understate the magnitude of inflation, it is recommended that the Town base its annual adjustment mechanism on the higher of the two indices (CPI or ENR), using a five-year moving average as the inflation factor.

In addition to revising the fee annually for inflation, the Town is encouraged to update the housing impact study every five years, or at the very least, update the housing affordability gap used in the basic model. The purpose of these updates is to ensure that the fee is still based on a cost-revenue structure that remains applicable in the Colma housing market. In this way, the fee will more accurately reflect any potential structural changes in the relationships between affordable prices and rents, market-rate prices and rents, and development costs.

## VIII. GLOSSARY OF TERMS AND ACRONYMS

### GLOSSARY OF TERMS

**Affordable Housing:** Under state and federal statutes, housing is defined as affordable if housing costs do not exceed 30 to 35 percent of gross household income.

**Annual Adjustment Mechanism:** Due to inflation in housing construction costs, it is frequently necessary to adjust impact fees. An index, such as the Consumer Price Index (CPI) or a published construction cost index (for example, from the Engineering News Record) is used to revise housing fees to reflect inflation in housing construction costs.

**Assisted Housing:** Housing that has received public subsidies (such as low interest loans, density bonuses, direct financial assistance, etc.) from federal, state, or local housing programs in exchange for restrictions requiring a certain number of housing units to be affordable to very low-, low-, and moderate-income households.

**Boomerang Funds:** Monies returned to the City by the State of California, after dissolution of redevelopment agencies in the State.

**Consumer price index (CPI):** Index that measures changes in the price level of a market basket of consumer goods and services purchased by households.

**Employment Densities:** The amount of square feet per employee is calculated for each property use that is subject to a commercial development housing linkage fee. Employment densities are used to estimate the number of employees that will work in a new commercial development.

**Household:** The US Census Bureau defines a household as all persons living in a housing unit whether or not they are related. A single person living in an apartment as well as a family living in a house is considered a household. Households do not include individuals living in dormitories, prisons, convalescent homes, or other group quarters.

**Household Income:** The total income of all the persons living in a household. Household income is commonly grouped into income categories based upon household size and income, relative to the regional median family income.

**Housing Affordability Gap:** The affordability gap is defined as the difference between what a household can afford to spend on housing and the market rate cost of housing. Affordable rents and sales prices are defined as a percentage of gross household income, generally between 30 percent and 35 percent of income.

For renters, rental costs are assumed to include the contract rent as well as the cost of utilities, excluding cable and telephone service. The difference between these gross rents and affordable rents is the housing affordability gap for renters. This calculation assumes that 30% of income is paid for gross rent.

For owners, costs include mortgage payments, mortgage insurance, property taxes, property insurance, and homeowner association dues.<sup>26</sup> The difference between these housing expenses and affordable ownership costs is the housing affordability gap for owners. This calculation assumes that 35% of income is paid for housing costs.

**Housing Subsidy:** Housing subsidies refer to government assistance aimed at reducing housing sales prices or rents to more affordable levels.

**Housing Unit:** A housing unit can be a room or group of rooms used by one or more individuals living separately from others in the structure, with direct access to the outside or to a public hall and containing separate toilet and kitchen facilities.

**IMPLAN3:** A software model that is used to provide a quantitative assessment of the interdependencies between different branches of a regional (or national) economy. The latest model, IMPLAN3, was used in the nexus studies. The major input is household income, and the major output is direct and induced employment reported by industries

**Inclusionary Zoning:** Inclusionary zoning, also known as inclusionary housing, refers to a planning ordinance that requires that a given percentage of new construction be affordable to households with very low, low, moderate, or workforce incomes.

**In-Lieu Fee:** A literal definition for an in-lieu fee for inclusionary units would be a fee adopted “in place of” providing affordable units. For the purposes of operating an inclusionary housing program, a public jurisdiction may adopt a fee option for developers that prefer paying fees over providing housing units on- or off-site. A fee study is frequently undertaken to establish the maximum fee that can be charged as an in-lieu fee. This fee study must show that there is a reasonable relationship between the fee and the cost of providing affordable housing.

**Market-Rate Housing:** Housing which is available on the open market without any public subsidy. The price for housing is determined by the market forces of supply and demand and varies by location.

**Nexus Study:** In order to adopt a residential housing impact fee or a commercial linkage fee, a nexus study is required. A nexus requires local agencies proposing a fee on a development project to identify the purpose of the fee, the use of the fee, and to determine that there is “a reasonable

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<sup>26</sup> Mortgage terms for first-time homebuyers typically allow down payment of five percent; these terms require private mortgage insurance.

relationship between the fee's use and the type of development project on which the fee is imposed.” A nexus study establishes and quantifies a causal link or “nexus” between new residential and commercial development and the need for additional housing affordable to new employees.

**Linkage Fee:** A fee or charge imposed on commercial developers to pay for a development's impact on the need for affordable housing. The fee is based on projected household incomes of new employees that will work in newly created space. The fee varies according to the type of property use.

**Prototypes:** Prototypes are used for residential and commercial developments in order to define housing impact fees. The prototypes generally represent new development projects built in a community and are used to estimate affordable housing impacts associated with new market rate commercial and residential developments. While the prototypes should be “typical” of what is built, for ease of mathematical computation, they are often expressed as larger developments in order to avoid awkward fractions.

**Residential or Housing Impact Fee:** A fee imposed on residential development to pay for a development's impact on the need for affordable housing. The fee is based on projected incomes of new employees associated with the expansion of market rate developments. Two steps are needed to define the fees. The first step is the completion of a nexus study, and the second step entails selection of the actual fee amount, which can be below the amount justified by the fee study, but not above that amount.

**RS Means:** Data source of information for construction cost data.

## DEFINITION OF ACRONYMS

<b>AMI:</b>	Area Median Income
<b>CBIA:</b>	California Building Industry Association
<b>EDD:</b>	State of California Employment Development Department
<b>FAR:</b>	Floor-area-ratio
<b>FF&amp;E:</b>	Furniture, Fixtures, and Equipment
<b>GBA:</b>	Gross Building Area
<b>HCD:</b>	Department of Housing and Community Development (State of California)
<b>NAICS:</b>	North American Industry Classification System
<b>NSF:</b>	Net Square Feet
<b>QCEW:</b>	Quarterly Census of Employment and Wages
<b>R&amp;D:</b>	Research and development
<b>SF:</b>	Square Feet
<b>TDC:</b>	Total Development Costs