bae urban economics

Non-Residential Housing Mitigation Fee Nexus Study

Prepared for the City of Sunnyvale

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INTRODUCTION

The City of Sunnyvale (City) has implemented a Housing Mitigation Fee since 1983, when the City Council approved a program requiring specified industrial and commercial developments to contribute toward addressing housing needs and improving the jobs-housing ratio in Sunnyvale. The City has updated the fee periodically since 1983 and has since expanded the fee to apply to additional types of non-residential development. Funds from the Housing Mitigation Fee support the development and preservation of affordable housing in Sunnyvale by funding new construction, rehabilitation, acquisition, and predevelopment costs for affordable housing units.

Sunnyvale most recently conducted a nexus study for the Housing Mitigation Fee in 2014 and updated the fee in 2015 based on the study's recommendations. Although the fee is updated annually for inflation, these updates do not account for any changes in market conditions or changes in the impact that new non-residential development has on the need for housing in Sunnyvale. In 2022, the City commissioned BAE Urban Economics (BAE) to conduct a nexus study and financial feasibility analysis to evaluate potential changes to the Housing Mitigation Fee.

Purpose

Local governments have the authority to implement development impact fees for the purpose of mitigating all or some of the costs associated with addressing the impacts of new development. Under the California Mitigation Fee Act (Government Code Section 66000 et seq.), before adopting an impact fee, local governments must adopt a nexus study that demonstrates a reasonable relationship between the impacts of new development, the facilities needed to address those impacts, and the fees that the jurisdiction intends to charge. The City of Sunnyvale's Housing Mitigation Fee is an impact fee that is subject to this requirement.

The purpose of this nexus study is to quantify the relationship between new non-residential development in Sunnyvale, the need for workforce housing, and the public cost to construct housing that is affordable to lower-income workers. The concept of the nexus study is that new non-residential development generates new employment and brings new worker households to Sunnyvale. A portion of these workers will have wages and household incomes that are not high enough to enable them to afford market-rate housing in Sunnyvale, and as a result new commercial development generates a need for affordable housing. The nexus analysis identifies the fees that the City of Sunnyvale would need to charge to generate the funds necessary to support the construction of affordable units for these workers.

Nexus studies for this type of fee often find that the fee rates that are supported by the nexus analysis are relatively high, and that charging the full nexus-based fee amount would likely render most or all new development infeasible. To address this, this study also includes a financial feasibility analysis to evaluate the impact that new fees could have on the feasibility of new non-residential development. While the nexus analysis identifies the maximum amount that Sunnyvale could charge based on the relationship between new non-residential development and the need for affordable housing funds, the City can adopt lower fee rates based on financial feasibility considerations or other factors. Sunnyvale has historically adopted Housing Mitigation Fees that are substantially lower than the fee supported by the nexus analysis, including when the fee was most recently updated in 2015.

AB 602 Requirements

In September 2021, Governor Newsom signed Assembly Bill 602 (AB 602), which enacted new requirements for impact fees and impact fee nexus studies. The legislation is primarily focused on impact fees that apply to residential development. However, some provisions of the legislation might apply to impact fees charged on non-residential development. These provisions are discussed below.

Level of Service

AB 602 requires that impact fee nexus studies "identify the existing level of service for each public facility, identify the proposed new level of service, and include an explanation of why the new level of service is appropriate." (See Government Code Section 66016.5(a)(2).) The non-residential Housing Mitigation Fee program generates funding necessary to finance the construction of new publicly-assisted affordable housing units to serve new workers in Sunnyvale as the City's employment base grows. Therefore, in the context of the non-residential Housing Mitigation Fee, the level of service can be defined in terms of the number of publicly-assisted affordable housing units in Sunnyvale per worker employed in Sunnyvale.

Existing Level of Service. According to the City of Sunnyvale's July 2022 Draft 2023-2031 Housing Element, there are 1,654 publicly-assisted affordable housing units in Sunnyvale. This total consists of units that received public funding, including funds generated by Housing Mitigation Fees, in exchange for providing affordable housing. In addition to these units, Sunnyvale's deed-restricted affordable housing inventory includes 283 rental units that were created through the City's inclusionary housing program and the State Density Bonus program and 433 homeownership units that were created through the City's inclusionary housing program. These units did not receive public funding and therefore are not factored into this analysis. According to US Census American Community Survey (ACS) data collected between 2015 and 2019, there were an estimated 107,385 people that work in Sunnyvale. Based on these figures, there are currently approximately 0.015 publicly-assisted affordable housing units per worker in Sunnyvale, as shown in Table 1 below.

Proposed New Level of Service. As shown in Table 1, the fee rates recommended in this study would support the construction of an estimated 0.021 units of publicly-assisted affordable housing per new worker in office space, 0.015 units of publicly-assisted affordable housing per new worker in retail space, 0.043 units of publicly-assisted affordable housing per new worker in lodging space, and 0.064 units of publicly-assisted affordable housing per new worker in industrial space.

Table 1: Level of Service Analysis

Existing Level of Service				
Workers in Sunnyvale (a)	107,385			
Publicly-Supported Affordable Housing Units	1,654			
Publicly-Supported Affordable Housing Units per Worker	0.015			
Proposed New Level of Service	**Office/R&D**	**Retail/ Restaurant**	**Lodging**	**Industrial/ Warehouse**
Fee Necessary to Address Full Housing Need	$104.15	$189.74	$58.10	$35.37
Recommended Fee Rate	$22.00	$9.80	$9.80	$19.50
% of Full Need Mitigated by Recommended Fee Rate	21%	5%	17%	55%
Estimated Number of Workers per 1,000 SF (b)	3.33	2.00	0.67	1.00
Affordable Housing Need per 1,000 SF (c)	0.32	0.57	0.17	0.12
Affordable Housing Need per 1,000 SF Mitigated by Rec. Fee Rate (d)	0.07	0.03	0.03	0.06
Affordable Housing Units Funded per Worker (e)	0.021	0.015	0.043	0.064

Notes:
(a) Based on ACS data collected between 2015 and 2019. This analysis uses data that reflect conditions prior to the COVID-19 pandemic to avoid underestimating employment levels.
(b) See Table 4.
(c) See Table 6.
(d) Equal to the affordable housing need per 1,000 SF multiplied by the percentage of the full need mitigated by the recommended fee rate.
(e) Equal to the affordable housing need per 1,000 SF mitigated by the recommended fee rate divided by the estimated number of workers per 1,000 SF.

Sources: US Census American Community Survey, 2015-2019; City of Sunnyvale Draft Housing Element Update, July 2022; BAE, 2022.

Appropriateness of New Level of Service. Table 1 above indicates that the recommended fee rates would support a higher level of service than currently exists in Sunnyvale. The level of service that the fee would support is appropriate in part because the current level of service is insufficient to provide enough affordable housing for Sunnyvale's workforce. There is a persistent shortage of available affordable housing units throughout the region, and affordable housing developments consistently have long waiting lists for any available units.

The existing shortage of affordable units is also apparent in the number of households that are overpaying for housing in Sunnyvale.[1] As discussed in Sunnyvale's July 2022 Draft 2023-2031 Housing Element, approximately 78 percent of extremely low-income households, 69 percent of very low-income households, and 48 percent of low-income households are overpaying for housing. These data indicate a significant gap in the number of lower-income households living in Sunnyvale and the availability of affordable housing.

[1] A household is typically considered to be overpaying for housing if it spends more than 30 percent of its gross income on housing-related expenses, such as rent, utilities, or mortgage payments.

The Housing Mitigation Fee will not address these existing deficiencies in the affordable housing inventory. However, supporting a higher level of service through the Housing Mitigation Fee could help to prevent new non-residential development in Sunnyvale from continuing to replicate the same gaps in affordable housing delivery that exist under the current level of service. Even at the higher level of service that the recommended fee rates would support, the Housing Mitigation Fee would not fully mitigate the need for affordable housing that new non-residential development is anticipated to create. As a result, some gaps in affordable housing delivery would remain unless mitigated through other means.

Furthermore, the higher level of service is appropriate based on the City of Sunnyvale's Regional Housing Needs Allocation (RHNA). The RHNA is the number of housing units that the City is required to plan to accommodate during each eight-year Housing Element cycle. Prior to the start of each Housing Element cycle, the State determines the total RHNA for each region in California. Each region then goes through a process to distribute the RHNA among each of the cities and counties in the region. Under California law, each city and county in California is required to prepare a Housing Element every eight years and must demonstrate through the Housing Element that the jurisdiction has the ability to accommodate its RHNA during the eight-year Housing Element period. The RHNA for each city and county includes an allocation of units that will be affordable to low-income and moderate-income households, and the Housing Element must demonstrate that the jurisdiction has the ability to accommodate units at each affordability level.

For the 6th Housing Element Update Cycle (2023-2031), the City of Sunnyvale has a RHNA obligation totaling 11,966 units, including 4,677 units for lower-income households. This a significant increase from the 5th Housing Element Update Cycle (2015-2023), when the City's RHNA obligation totaled 5,452 units, including 2,546 units for lower-income households. Sunnyvale's July 2022 Draft 2023-2031 Housing Element reports that the City permitted 4,743 affordable housing units during the 5th Housing Element cycle, of which 323 are affordable to lower-income households. This suggests that Sunnyvale will need to issue building permits for significantly more affordable housing units during the 6th Housing Element Cycle to address the City's RHNA. While the Housing Mitigation Fee is not intended to fully address the City's RHNA and will not be sufficient to do so, these figures demonstrate a need for the City of Sunnyvale to enhance the level of service provided by the City's affordable housing inventory relative to existing conditions.

Prior Nexus Study Assumptions and Fees Collected

Pursuant to AB 602, Government Code Section 66016.5(a)(4) provides that "if a nexus study supports the increase of an existing fee, the local agency shall review the assumptions of the nexus study supporting the original fee and evaluate the amount of fees collected under the original fee."

The City of Sunnyvale most recently updated the non-residential Housing Mitigation Fee in 2015, following completion of a nexus study for the fee in 2014. The 2014 nexus study determined that the maximum fee amount per square foot was $76.22 for lodging, $295.23 for retail/restaurants, and $113.99 for office/light industrial/R&D. This analysis found that current maximum fee amount per square foot is $58.10 for lodging, $189.74 for retail/restaurants, $104.15 for office/R&D, and $35.37 for light industrial/warehouse. Therefore, the analysis provided in this report identifies lower maximum fee rates than were identified in the 2014 nexus study. The maximum legal fee is a function of the employment densities in non-residential development, the income distribution among workers in each type of development, and the cost to build affordable housing. These factors change over time, which can impact the maximum legal fee that can be charged on new development.

The fees that the City of Sunnyvale adopted in 2015 were substantially lower than the maximum fee amounts determined by the 2014 nexus study, as is common for housing mitigation fees. The fees that the City adopted in 2015 were $7.50 per square foot for the first 25,000 net new square feet of office/R&D or industrial uses and $15.00 per square foot for all remaining square feet of office/R&D or industrial space. Retail and lodging uses were charged a fee of $7.50 per net new square foot. These fee rates were based on a financial feasibility analysis, an evaluation of fees charged by neighboring jurisdictions, and consideration of the City's housing and economic development goals. The City has since updated the fee for inflation on an annual basis and currently charges office/R&D and industrial uses $9.80 per square foot for the first 25,000 net new square feet of a project and $19.50 per square foot for all remaining square feet. Retail and lodging uses are charged a fee of $9.80 per net new square foot.

Similarly, this study recommends that the City adopt fees that are substantially lower than the maximum fee rates established by the nexus analysis. As discussed in more detail in the last chapter of this report, this study recommends no change to the existing fee for lodging, retail/restaurant, and light industrial/warehouse uses. The study recommends an increase in the fee for office/R&D uses to $11 per square foot for the first 25,000 net new square feet of a project and $22 per square foot for all remaining square feet. These fee recommendations are based on the financial feasibility analysis that is included in this report and the fees that neighboring jurisdictions currently charge, as well as the City's need to fund affordable housing to mitigate the impacts of new non-residential development as a part of addressing RHNA requirements. All of these factors have changed since the 2015 adoption of the existing fee rates, and therefore consideration of an adjustment in the fee rates is warranted.

The City of Sunnyvale has collected $47,694,296 in Housing Mitigation Fee revenues based on the fees adopted in 2015. This total includes only those projects that were subject to the fees that were adopted based on the 2014 nexus study.

Capital Improvement Plan

Under AB 602, Government Code Section 66016.5(6) states that "large jurisdictions shall adopt a capital improvement plan as a part of the nexus study." For the purposes of this provision, Sunnyvale is classified as a large jurisdiction.[2] Government Code Section 66002 further states that "any local agency which levies a fee subject to [the California Mitigation Fee Act] may adopt a capital improvement plan, which shall indicate the approximate location, size, time of availability, and estimates of cost for all facilities or improvements to be financed with the fees."

A jurisdiction's capital improvement plan identifies infrastructure improvements and public facilities projects that the jurisdiction intends to implement, though some portions of the capital improvement plan may be unfunded and would be implemented only if funding becomes available in the future. Affordable housing developments are not typically included in a jurisdiction's capital improvement plan, in part because local jurisdictions do not typically have a direct role in constructing affordable housing. Instead, local jurisdictions with access to affordable housing funds typically provide these funds to affordable housing developers or operators. These affordable housing developers or operators then use the funds to construct new affordable housing units, acquire existing housing units for the purpose of creating or maintaining affordable housing, or rehabilitate existing affordable units.

Although affordable housing developments are not included in a formal capital improvement plan, the City of Sunnyvale's Draft 2023-2031 Housing Element Update provides a plan to accommodate the City's RHNA. This plan includes an identification of sites where all 4,677 lower-income units in the City's RHNA could be built and programs that will provide funding assistance, technical assistance, and regulatory incentives to facilitate the for the development and preservation of at least 2,546 units for lower-income households over the eight-year Housing Element period. These units would be located within Sunnyvale City limits, and will likely generally correspond to the approved, under construction, and pipeline projects identified in the Housing Element, as well as projects that could be constructed on the opportunity sites that the Housing Element identifies. Projects with affordable units will vary in size based on the specific opportunities for affordable housing development that could occur during the planning period and will likely generally range from 10 units to over 100 units.

Information provided in recent applications for City funding for new affordable housing developments in Sunnyvale indicates that the cost to build a publicly-assisted affordable housing unit currently averages an estimated $849,000 per unit. Funds from the Housing Mitigation Fee will help to finance a portion of the cost to construct these units but are not anticipated to be sufficient to fund the construction of all of the low-income units in the City's

[2] AB 602 uses the definition of a "large jurisdiction" that is contained in Section 53559.1 of the California Health and Safety Code. This section defines a large jurisdiction as a county with a population of 250,000 or more as of January 1, 2019 or any city within that county.

RHNA. The total cost that will be financed through the fees will depend on the amount of revenue generated by the Housing Mitigation Fee during the Housing Element cycle. In addition to Housing Mitigation Fees, construction of these units will be financed by other public and private funding sources, including but not limited to low-income housing tax credits. A portion of the RHNA will also be met through other City housing programs, including the City's inclusionary ordinance.

Current Housing Mitigation Fee Structure

When the City of Sunnyvale last updated the Housing Mitigation Fee in 2015, the fee rates adopted by the City were $7.50 per square foot for the first 25,000 net new square feet of office/R&D or industrial uses and $15.00 per square foot for all remaining square feet of office/R&D or industrial space. Retail and lodging uses were charged a fee of $7.50 per net new square foot.

The fee has since been updated for inflation on an annual basis. Under the current fee schedule, office/R&D and industrial uses are charged a fee of $9.80 per square foot for the first 25,000 net new square feet of a project and $19.50 per square foot for all remaining square feet. Retail and lodging uses are charged a fee of $9.80 per net new square foot. Sunnyvale's current Housing Mitigation Fee rates are shown in Table 2.

Table 2: Current Sunnyvale Housing Mitigation Fee Rates

Use	Applicable Fees		
Office/R&D/Industrial	First 25,000 net new sq ft of project	$9.80	/sq ft
	All remaining net new sq ft	$19.50	/sq ft
Retail/Lodging	All net new sq ft	$9.80	/sq ft

Sources: City of Sunnyvale, 2022; BAE, 2022.

Affordability of Market-Rate Housing

Table 3 below shows the average market-rate rent in Sunnyvale as of the second quarter of 2022 as well as the maximum affordable monthly rent for households of various sizes and income levels. The U.S. Department of Housing and Urban Development (HUD) and the California Department of Housing and Community Development (HCD) characterize households as "extremely low-income," "very low-income," "low-income," "moderate-income," or "above-moderate income" based on percentages of the Area Median Income (AMI). These income categories are defined below.

- Extremely Low-Income: Up to 30 percent of AMI
- Very Low- Income: 31 percent to 50 percent of AMI
- Low-Income: 51 percent to 80 percent of AMI
- Moderate-Income: 81 percent to 120 percent of AMI
- Above-Moderate Income: More than 120 percent of AMI

In accordance with guidelines established by HUD, housing costs are generally considered to be affordable if a household's housing costs are equal to no more than 30 percent of their household income. For lower-income households, having housing costs above this threshold often signifies that a household is at risk of displacement and may struggle to afford housing costs while also paying for food, transportation, health care, and other basic needs.

The analysis shown in Table 3 indicates that market-rate rents in Sunnyvale exceed the affordability threshold for extremely low-, very low-, and low-income households. The analysis also indicates that market-rate rents also exceed the affordability threshold for some moderate-income households because the incomes shown in the table are at the top of the income range for each group. For moderate-income households with incomes closer to the bottom end of the range, market-rate rents would exceed the affordability threshold in most cases.

This analysis indicates that many new workers in Sunnyvale with moderate or above moderate household incomes will generally be able to afford market-rate rental units in the City, while workers with lower household incomes will generally not be able to afford market-rate housing in Sunnyvale. While some market-rate units in Sunnyvale have rents that fall below the averages shown in Table 3, data from Costar indicate that the multifamily rental vacancy rate in Sunnyvale is below five percent. This suggests that new housing will need to be built to accommodate an increase in worker housing regardless of the level of affordability needed. The market-rate rents shown in Table 3 are based on all market-rate units in Sunnyvale, regardless of property age, and therefore are lower than the rents that would be charged at a newer development. As a result, new market-rate units are unlikely to provide housing that is affordable for worker households with extremely low, very low, and low incomes, and these households will need rent-restricted affordable housing in order to be able to afford to live locally.

Based on the calculations shown in Table 3, the nexus analysis provided in this study evaluates the extent to which new development generates a need for housing for extremely low-income, very low-income, and low-income households. The nexus analysis does not focus on the housing need for moderate or above-moderate income households because households at these income levels are more likely to be able to afford market-rate housing.

Table 3: Affordability of Market-Rate Multifamily Rental Units, Sunnyvale, 2022

	Household (Unit) Size			
	1 Person (Studio)	2 Person (1 Bedroom)	3 Person (2 Bedrooms)	4 Person (3 Bedrooms)
Average Market-Rate Rent (a)	$2,341	$2,729	$3,443	$4,436
Utility Costs (b)	$168	$179	$217	$253
Maximum Affordable Monthly Rent				
Extremely Low Income (up to 30% AMI)				
Household Income (c)	$35,400	$40,450	$45,500	$50,550
Max. Affordable Monthly Rent (d)	$717	$832	$921	$1,011
Amount Above (Below) Market Rate Rent	($1,624)	($1,897)	($2,523)	($3,425)
Very Low Income (31-50% AMI)				
Household Income (c)	$59,000	$67,400	$75,850	$84,250
Max. Affordable Monthly Rent (d)	$1,307	$1,506	$1,679	$1,853
Amount Above (Below) Market Rate Rent	($1,034)	($1,223)	($1,764)	($2,583)
Low Income (51-80% AMI)				
Household Income (c)	$92,250	$105,400	$118,600	$131,750
Max. Affordable Monthly Rent (d)	$2,138	$2,456	$2,748	$3,041
Amount Above (Below) Market Rate Rent	($203)	($273)	($695)	($1,395)
Moderate Income (81-120% AMI)				
Household Income (c)	$141,550	$161,750	$182,000	$202,200
Max. Affordable Monthly Rent (d)	$3,371	$3,865	$4,333	$4,802
Amount Above (Below) Market Rate Rent	$1,030	$1,136	$890	$366

Notes:
(a) The average asking multifamily rent by number of bedrooms in the City of Sunnyvale at the end of the second quarter of 2022, as reported by CoStar.
(b) Housing Authority of Santa Clara County 2022 allowances for tenant-furnished utilities and other services for a multifamily unit that uses electricity for cooking, heating, and water heating, as well as electricity for lights and appliances. The allowance is based on the number of bedrooms in the unit and a household is assumed to have one bedroom fewer than the number of people in the household.
(c) California Department of Housing and Community Development 2022 income limits for Santa Clara County.
(d) Assumes 30 percent of income spent on rent and utilities.

Sources: CoStar, 2022; California Department of Housing and Community Development, 2022; HUD OMB 2577-0169, 2022; Housing Authority of Santa Clara County, 2022; BAE, 2022.

Input from Non-Residential Developers

The process for preparing this nexus study report included obtaining input from residential developers through a series of one-on-one interviews and during a developer focus group session. The developer interviews focused on collecting input on detailed assumptions for the financial feasibility analysis and also included some general discussion of the impact that changes in the Housing Mitigation Fee might have on non-residential development feasibility.

The developer focus group session focused on a more general discussion of the impact that the current fee has on non-residential development feasibility and the potential impact of an increase in the fee. Attendees were also asked to provide input on ways to implement any changes in the fee to help with feasibility. Approximately 40 local developers were invited to the focus group and three attended.

Input received during this process included the following:

- Participants provided information on detailed assumptions for the financial feasibility analysis, including but not limited to information on hard construction costs, soft costs, land costs, commercial rents, and capitalization rates in Sunnyvale.
- Participants cited challenges and uncertainty in the current development environment due to high construction costs and the ongoing effects of the COVID-19 pandemic. Construction costs have increased dramatically in recent years while the market for office and other types of non-residential development continues to be impacted by the pandemic. There continues to be a significant amount of uncertainty regarding how much office space will be needed in the future, where there will be demand for office space, and how new office spaces will be used.
- Despite these challenges, both non-residential and residential developers are continuing to pursue new development projects in Sunnyvale, though some developers noted a slowdown in construction starts.
- Many of the participants stated that requirements to include retail in new development projects, either due to formal requirements or due to requests during the approvals process, can be somewhat onerous. Retail spaces are not generally profitable and are often difficult to lease up, though the inclusion of retail in mixed-use projects can serve as an amenity that helps to attract tenants and achieve higher rents. Some participants requested that the City consider exempting retail space from the requirement to pay the Housing Mitigation Fee.
- Participants noted support for the City’s efforts to provide affordable housing and an understanding of the importance of the Housing Mitigation Fee for this purpose.
- Participants generally did not indicate that the current Housing Impact Fee places a strain on the feasibility of new development but noted that the Housing Impact Fee is just one of several fees that apply to new development projects.
- Participants stated a preference that any fee increase be implemented gradually, using a phased-in approach, and with advance notice to allow developers to plan for increases when purchasing land and planning new development projects. Developers stated that this phasing is particularly important given the current development context and ongoing uncertainty in the development environment.
- Some participants stated a preference that the City use non-residential Housing Mitigation Fees to fund affordable housing in the same area of Sunnyvale as the projects that generate the fee revenue.
- Participants asked for flexibility in implementing the Housing Mitigation fee, including the option to allow on-site provision of affordable units in lieu of paying the fee, providing incentives or credits for fee payments, allowing a reduction in the fee for projects that pay prevailing wages, and offering a lower fee rate for developers that pay the fee earlier than required.

NEXUS ANALYSIS

This chapter quantifies the relationship, or "nexus", between the construction of new non-residential projects and the need for affordable housing funds. The nexus analysis for the non-residential housing mitigation fee is based on the premise that new commercial land uses generate new employment for workers that will have a range of household incomes. Due to high housing costs in Sunnyvale, new workers with extremely low, very low, or low household incomes will be unable to afford most market-rate housing in the City without incurring substantial cost burdens. The resulting impact from new non-residential development is an increase in workers in Sunnyvale that face a lack of affordable housing options. The housing mitigation fee mitigates these impacts by generating revenue to support the construction of housing affordable to the new lower-income worker households.

The process for quantifying the nexus between new non-residential development and the fee revenue necessary to address the resulting affordable housing need consists of the following steps:

Step 1: Identify land uses and employment densities. This step consists of identifying the land uses that will be evaluated in the nexus analysis as well as the typical employment density (i.e., workers per 1,000 square feet) for each use type.

Step 2: Estimate worker households by income level for each land use type. For each land use, the estimated number of worker households at each income level is a function of:

- The employment density for that land use (as identified in Step 1);
- The typical income distribution among workers employed in the land use (estimated as part of Step 2); and
- The typical number of workers per household among workers at each income level (estimated as part of Step 2).

This step yields an estimate of the number of lower-income worker households that each land use generates. These are the households that are unable to afford market-rate housing in Sunnyvale.

Step 3: Calculate the affordable housing financing gap. The financing gap is the amount of public subsidy needed to finance an affordable housing unit.

Step 4: Calculate the maximum nexus-based fee. The maximum nexus-based fee is equal to the number of lower-income worker households from Step 2 multiplied by the affordable housing financing gap from Step 3.

Each of these steps is discussed in more detail in the following sections.

Land Uses and Employment Densities

This analysis evaluates the following four land uses:

- Office/Research and Development (R&D)
- Retail/Restaurant
- Hotel
- Industrial/Warehouse

For each land use, this study estimated the average employment density, expressed in terms of workers per 1,000 square feet of each land use type. BAE reviewed several studies to estimate average employment densities for each land use type, including Environmental Impact Reports for projects in the region, other commercial linkage fee nexus studies, and US Energy Information Administration Commercial Buildings Energy Consumption Survey data. Actual employment density can vary depending on the specific occupants in a given use. Therefore, this study uses employment densities that may be slightly higher than is typical for some uses to avoid overestimating the impacts of new development. As shown below, this nexus analysis assumes an employment density of 300 square feet per employee for office/R&D uses, 500 square feet per employee for retail and restaurant uses, 1,500 square feet per employee for hotel uses, and 1,000 square feet per employee for industrial and warehouse uses.

Table 4: Employment Densities by Land Use

	Office/R&D	Retail/Restaurant	Hotel	Industrial/Warehouse
Average Sq. Ft./Employee	300	500	1,500	1,000
Employees per 1,000 SF	3.33	2.00	0.67	1.00

Source: BAE, 2022.

Worker Households by Income Level

Worker occupations, salaries, and associated household incomes tend to vary between industries, and therefore this Nexus Study identifies the industry sectors that might occupy each of the four land uses as a first step in identifying affordable housing need among worker households.

Researchers in economics typically categorize business establishments based on the North American Industry Classification System (NAICS), which provides numerical codes by industry sector. NAICS codes group all industries into 20 major industry categories, each identified with a two-digit code. Within each two-digit NAICS sector, more detailed sub-categories of industries are identified by three-digit NAICS codes, which are themselves comprised of more detailed subcategories of industries, up to the six-digit NAICS code level, with more digits associated with more detailed subcategories. For example, NAICS sector 72, Accommodation and Food Services, is comprised of NAICS code sectors 721 (Accommodation) and 722 (Food

Services and Drinking Places). NAICS codes 721 and 722 are comprised of more detailed industries, identified by NAICS codes with four to six digits, depending on the level of specificity of the subcategories.

BAE developed a list of representative industries using NAICS-based Census industry categories likely to occupy each of the four commercial land uses, as shown in Appendix A. The U.S. Census Bureau uses this classification system as a basis for their system for classifying workers by industry for the American Community Survey (ACS). Each worker surveyed is categorized by a scheme which roughly corresponds to NAICS four-digit level data. Published ACS data roll the detailed categories up into several major industry categories, but a more detailed data set, the Public Use Microdata Sample (PUMS), allows analysis at a more fine-grained level. BAE queried the PUMS data set for Santa Clara County to identify the distribution of worker households by HCD income category, using the household incomes and household size for workers in the industries identified for each of the four commercial land uses. Table 5 below presents the distribution of worker households by HCD income level.

Table 5: Distribution of Worker Households by Income

	Estimated Household Income as a Percent of AMI					
Land Use	**Extremely Low**	**Very Low**	**Low**	**Moderate**	**Above Moderate**	**Total**
Office/R&D	3.8%	5.4%	7.3%	15.7%	67.7%	100.0%
Retail/Restaurant	12.7%	16.2%	18.6%	22.6%	29.9%	100.0%
Hotel	10.3%	18.3%	19.8%	23.0%	28.6%	100.0%
Industrial/Warehouse	3.5%	6.8%	9.6%	19.2%	60.9%	100.0%

Notes:
Based on a cross tabulation of Public Use Microdata Samples (PUMS) from the 2016-2020 American Community Survey. These incomes were compared to household income limits published by the State of CA Department of Housing and Community Development (HCD) to determine the percentage of households falling into each income category. The analysis controlled for household size, to address the varying HCD income limits for each household size.

Sources: Census, American Community Survey Public-Use Microdata Sample (PUMS) 2016-2020; HCD; BAE, 2022.

The percentages in the household income distributions were then applied to the total workers per 1,000 square feet shown above in Table 4 to estimate the number of jobs per 1,000 square feet in each income category. The analysis translates the number of jobs into households by dividing the number of jobs by the average number of workers per worker household for each income category, using PUMS data to identify the average number of workers per worker household by household income level. As shown below in Table 6, office or R&D space generates an estimated 1.76 worker households per 1,000 square feet, including 0.32 lower-income (i.e., extremely low-income, very low-income, and low-income) worker households. Retail space generates an estimated 1.11 worker households per 1,000 square feet, including 0.57 lower-income worker households. Hotels generate an estimated 0.37 worker households per 1,000 square feet, including 0.19 lower-income worker households. Industrial space generates an estimated 0.53 worker households per 1,000 square feet, including 0.12 lower-income worker households.

Table 6: Worker Households by Income Level by Land Use

Land Use	Extremely Low	Very Low	Low	Moderate	Above Moderate	Total
	Estimated Household Income as a Percent of AMI (a)					
Office/R&D						
Proportion of Total Jobs (b)	3.8%	5.4%	7.3%	15.7%	67.7%	100.0%
Estimated Jobs per 1,000 SF (c)	0.13	0.18	0.24	0.52	2.26	3.33
Worker Households per 1,000 SF (d)	**0.09**	**0.11**	**0.13**	**0.27**	**1.16**	**1.76**
Retail/Restaurant						
Proportion of Total Jobs (b)	12.7%	16.2%	18.6%	22.6%	29.9%	100.0%
Estimated Jobs per 1,000 SF (c)	0.25	0.32	0.37	0.45	0.60	2.00
Worker Households per 1,000 SF (d)	**0.18**	**0.19**	**0.20**	**0.24**	**0.31**	**1.11**
Hotel						
Proportion of Total Jobs (b)	10.3%	18.3%	19.8%	23.0%	28.6%	100.0%
Estimated Jobs per 1,000 SF (c)	0.07	0.12	0.13	0.15	0.19	0.67
Worker Households per 1,000 SF (d)	**0.05**	**0.07**	**0.07**	**0.08**	**0.10**	**0.37**
Light Industrial/Warehouse						
Proportion of Total Jobs (b)	3.5%	6.8%	9.6%	19.2%	60.9%	100.0%
Estimated Jobs per 1,000 SF (c)	0.04	0.07	0.10	0.19	0.61	1.00
Worker Households per 1,000 SF (d)	**0.02**	**0.04**	**0.05**	**0.10**	**0.31**	**0.53**
Average # of Workers per Household (e)	1.41	1.69	1.91	1.91	1.94	

(a) Based on income limits published by HCD.
(b) Based on a cross tabulation of Public Use Microdata Samples (PUMS) from the 2016-2020 American Community Survey. These incomes were compared to household income limits published by HCD for 2020 and as calculated by BAE to determine the percentage of households falling into each income category. The analysis controlled for household size, to address the varying income limits for each household size. Figures for each land use are based on a combination of NAICS sectors deemed likely to be found in each land use.
(c) Total number of jobs per 1,000 SF of each land use as shown in Table 4, multiplied by the proportion of jobs in each income category.
(d) Estimated number of jobs multiplied by the average number of workers per household in each income category.
(e) Average number of workers per worker household by income category calculated based on American Community Survey PUMS Analysis, 2016-2020.

Sources: American Community Survey, 2016-2020 Public Use Microdata Sample; CA Dept. of Housing and Community Development (HCD); BAE, 2022.

Financing Gap

The next step in the nexus analysis is to calculate the cost to house the extremely low-, very low-, and low-income households calculated in Step 3 by determining the per unit "financing gap" for an affordable unit. The nexus analysis defines the financing gap for an affordable unit as the difference between the cost to develop an affordable unit and the amount of permanent financing available to support the development of the unit.

Affordable Unit Development Cost. To estimate the average construction cost for an affordable unit, BAE reviewed cost estimates provided in recent applications for City funding for new affordable housing developments in Sunnyvale. Based on the information from these applications, BAE estimated that the average cost to construct an affordable housing unit in Sunnyvale is approximately $849,000, as shown in Table 7 below. It should be noted that development costs for affordable units may exceed this amount, particularly for projects that provide underground parking. For example, development costs for one recent affordable housing development in Sunnyvale with underground parking averaged approximately $935,000 per unit. This project was not included in the projects used to calculate the average construction cost of $849,000 in order to provide a more conservative analysis, resulting in a lower maximum legal fee calculation.

Permanent Financing. To calculate the financing gap for an affordable unit, the nexus analysis assumes that an affordable housing developer is able to secure four percent LIHTC equity financing as well as a permanent loan based on the net operating income (NOI) from each unit.

This analysis assumes four percent LIHTC equity financing because this funding source is more readily available than nine percent LIHTC financing, for which there is considerable competition. However, it should be noted that four percent LIHTC financing is somewhat limited and is not necessarily guaranteed at the levels that would be necessary to construct all affordable units needed to address housing needs generated by new non-residential developments. In addition, inclusion of four percent tax credits as a funding source shifts some of the cost of providing affordable housing onto the public sector because the tax credits reduce the tax credit investors' tax liability. Including four percent LIHTC financing as a source of funding in the nexus model reduces the net affordability gap show in Table 7, and therefore serves as a conservative assumption to avoid overstating the cost associated with mitigating the housing needs generated by new non-residential development. As shown in Table 7, four percent LIHTC equity would provide an estimated $345,468 per affordable unit, based on an average cost of $849,000 per unit and standard current four percent tax credit pricing assumptions.

The financing gap calculation does not include financing from other public funding sources because other sources are limited and typically require a heavily competitive application process. These sources are not sufficient to fully address affordable housing needs that arise due to the impacts of future non-residential development projects in Sunnyvale.

Table 7 also shows the estimated permanent loan amount per unit, based on the NOI from each unit (i.e., gross income net of vacancy and expenses) and typical financing terms. The rental rates used in this analysis are the 2022 rent limits for a two-bedroom unit for households at each income level, as set by the Tax Credit Allocation Committee (TCAC) for LIHTC projects, net of an estimated utility allowance. The vacancy, miscellaneous income, and operating expense assumptions shown in Table 7 are based on information provided in recent applications for LIHTC funding for projects in Santa Clara County. Based on the NOI for units at each affordability level and standard financing assumptions, the supportable loan amount ranges from $27,257 per unit for units serving extremely low-income households to $321,854 per unit for units serving low-income households.

Net Financing Gap. The financing gap per affordable unit is equal to the total development cost less the tax credit equity and supportable loan amount. As shown, the financing gap per affordable unit ranges from $476,276 for extremely low-income units to $181,679 for low-income units. The financing gap has an inverse relationship to the income levels that each unit serves because units with higher income targeting generate more NOI and can therefore support higher debt service payments on a permanent loan. The financing gap figures shown in Table 7 represent the amount of permanent financing subsidy that the City of Sunnyvale would need to provide to support the development of units at each income level, assuming that the City's funds are leveraged with four percent tax credits and a permanent loan.

Table 7: Affordable Housing Financing Gaps, Sunnyvale, 2022

	Income Group		
	Extremely Low	**Very Low**	**Low**
Household Income Limit (a)	$45,500	$75,850	$118,600
Maximum Affordable Monthly Rent per Unit (b)	$920	$1,679	$2,817
Annual Gross Rent per Unit	$11,040	$20,148	$33,804
Less 5% Vacancy	($552)	($1,007)	($1,690)
Miscellaneous Income per Unit (Annual) (c)	$140	$140	$140
Less 5% Vacancy	($7)	($7)	($7)
Total Annual Revenue per Unit	$10,621	$19,273	$32,247
Less Annual Operating Expenses per Unit (c)	$8,620	$8,620	$8,620
Annual Net Operating Income per Unit	$2,001	$10,653	$23,627
Annual Supportable Debt Service per Unit (d)	$1,740	$9,264	$20,545
Permanent Loan Amount (e)	$27,257	$145,127	$321,854
Tax Credit Financing (4% LIHTC)	$345,468	$345,468	$345,468
Financing Gap per Affordable Unit (f)	**$476,276**	**$358,406**	**$181,679**
Assumptions			
Total Affordable Unit Development Costs (g)	$849,000		
Financing Terms			
Debt Coverage Ratio	1.15		
Interest Rate	4.92%		
Amortization of Loan	30		
Tax Credit Assumptions			
Tax Credit Price	$0.910		
Eligible Basis %	86.0%		
DDA Boost	130%		
Tax Credit Term (years)	10		
4% Tax Credit Percentage	4.00%		
Equity Partner Share	99.99%		

Notes:
(a) Based on a 3-person household/2-bedroom unit, CA Department of Housing & Community Development, 2022.
(b) Maximum affordable rents for 2-bedroom units per TCAC rent limits, net of 2-bedroom utility costs as shown in Table 3.
(c) Data from funding applications for recent affordable housing projects in Santa Clara County.
(d) Net Operating Income divided by Debt Coverage Ratio.
(e) Based on financing terms assumptions.
(f) Total Development Costs less Loan Amount and tax credit financing.
(g) Average development costs among City Notice of Funding Availability (NOFA) applications filed for affordable housing development projects in Sunnyvale in 2022.

Sources: California Tax Credit Allocation Committee, 2022; California Department of Housing and Community Development, 2022; Novogradac, 2022; BAE, 2022.

Maximum Legal Fee

The final step in calculating the maximum legal (nexus-based) fee is to apply the financing gap per affordable unit for each income level to the total housing need by income level for each of the non-residential uses. This is the maximum legal fee amount because it is directly derived from the nexus analysis described above (i.e., new commercial development generating new jobs combined into new worker households distributed by income band, and the cost to provide new affordable rental housing units to these same households). Because these fee rates are derived from the nexus analysis, these fee rates represent the maximum amount that the City of Sunnyvale could charge based on the relationship between the non-residential development and the need for affordable housing funds. The following chapter of this report evaluates the financial feasibility of the fee.

As shown in Table 8 below, the nexus-based fees are as follows:

- Office/R&D: $104.15 per square foot
- Retail/Restaurant: $189.74 per square foot
- Hotel: $58.10 per square foot
- Light Industrial/Warehouse: $35.37 per square foot

Table 8: Maximum Legal Non-Residential Housing Mitigation Fees

Income Level	Affordable Housing Need Per 1,000 SF (a)	Financing Gap (b)	Maximum Fee Per 1,000 SF (c)	Maximum Fee Per SF (d)
Office/R&D				
Extremely Low Income (up to 30% AMI)	0.09	$476,276	$42,463	$42.46
Very Low Income (31-50% AMI)	0.11	$358,406	$38,376	$38.38
Low Income (51-80% AMI)	0.13	$181,679	$23,309	$23.31
Total	**0.32**		**$104,147**	**$104.15**
Retail/Restaurant				
Extremely Low Income (up to 30% AMI)	0.18	$476,276	$85,925	$85.92
Very Low Income (31-50% AMI)	0.19	$358,406	$68,339	$68.34
Low Income (51-80% AMI)	0.20	$181,679	$35,474	$35.47
Total	**0.57**		**$189,738**	**$189.74**
Hotel				
Extremely Low Income (up to 30% AMI)	0.05	$476,276	$23,203	$23.20
Very Low Income (31-50% AMI)	0.07	$358,406	$25,739	$25.74
Low Income (51-80% AMI)	0.05	$181,679	$9,159	$9.16
Total	**0.17**		**$58,101**	**$58.10**
Light Industrial/Warehouse				
Extremely Low Income (up to 30% AMI)	0.02	$476,276	$11,867	$11.87
Very Low Income (31-50% AMI)	0.04	$358,406	$14,342	$14.34
Low Income (51-80% AMI)	0.05	$181,679	$9,159	$9.16
Total	**0.12**		**$35,368**	**$35.37**

Note:
(a) See Table 6.
(b) See Table 7.
(c) Equal to the affordable housing need per 1,000 SF at each income level multiplied by the financing gap at the corresponding income level.
(d) Equal to the nexus-based fee per 1,000 SF divided by 1,000.

Source: BAE, 2022.

FEASIBILITY OF MAXIMUM LEGAL FEE

This chapter of the Nexus Study evaluates the financial feasibility of the non-residential Housing Mitigation Fee. The nexus analysis in provided in the previous chapter identifies the maximum fee rates based on the relationship between the impact that new development creates and the fees necessary to address that impact. However, most jurisdictions that adopt these fees charge fee rates that are somewhat less than the maximum amount identified in the nexus analysis to account for financial feasibility considerations. This chapter evaluates financial feasibility using the following three methods:

1) Housing Mitigation Fees in effect in nearby jurisdictions.
2) Financial pro forma feasibility testing.
3) Potential Housing Mitigation Fees as a share of total development costs.

Fees in Other Jurisdictions

An evaluation of the housing mitigation fees that are assessed by neighboring jurisdictions can help to evaluate the impact that a change in Sunnyvale's Housing Mitigation Fee might have on financial feasibility.[3] To the extent that cities with comparable market conditions assess higher fees than Sunnyvale and continue to attract new non-residential development, this could serve as an indication that Sunnyvale could potentially adopt similar fees without making non-residential development infeasible. Conversely, if Sunnyvale were to adopt fees that are significantly higher than the fees charged in nearby jurisdictions, this could affect developers' willingness to pursue projects in Sunnyvale if developers are able to find attractive development opportunities in nearby cities with lower fees. Table 9 below shows Sunnyvale's current housing mitigation fee in addition to the affordable housing fees that apply in several nearby jurisdictions.

Office Fees in Other Jurisdictions

For office uses, the fee rates assessed by the jurisdictions shown in Table 9 range from $0 in some cases in San Jose to $68.50 per square foot in Palo Alto. Of the cities in the table, Fremont, Milpitas, and San Jose generally have fees for office uses that are lower than Sunnyvale's current fee rate. Santa Clara, Redwood City, Mountain View, San Mateo, and Palo Alto all have higher fees for office uses compared to Sunnyvale's current fee rate. San Jose does not assess housing mitigation fees on any office square footage under 50,000 square feet or on any office in the South and East San Jose Growth Areas. For larger projects in areas of the San Jose where office uses are subject to housing mitigation fees, the fee rate varies based on total project square footage and location, up to $15.79 per square foot. The City of San Jose applies a 20 percent discount if fees are paid in full prior to Building Permit issuance, with the full fee rate applied if paid at the scheduling of the Final Building Inspection.

[3] There are various terms that jurisdictions use to refer to housing mitigation fees, including "commercial linkage fees" and "affordable housing fees". For the purpose of this report, all fees in other jurisdictions are referred to as housing mitigation fees regardless of the specific terminology used in each jurisdiction.

Redwood City and San Mateo exempt any project that is smaller than 5,000 square feet. San Mateo provides a 25 percent reduction in the fee rate if the developer agrees to pay "Area Standard Wages", defined as the general prevailing wage determination for San Mateo County, to all construction workers on the project.

Retail Fees in Other Jurisdictions

Among the jurisdictions in Table 9, the fee rates that apply to retail uses range from $0 in San Jose (regardless of location and project size) to $23.11 per square foot in Palo Alto. Of the cities in the table, Fremont, San Jose, Santa Clara, Redwood City, Mountain View, and San Mateo generally have fees for retail uses that are lower than Sunnyvale's current fee rate. Milpitas has a fee rate that is very similar to Sunnyvale's fee and Palo Alto has a higher fee compared to Sunnyvale's current fee rate. As noted above, Redwood City and San Mateo exempt any project that is smaller than 5,000 square feet and San Mateo provides a 25 percent reduction in the fee rate if the developer agrees to pay Area Standard Wages.

Hotel Fees in Other Jurisdictions

Among the jurisdictions in Table 9, the fee rates that apply to hotel uses range from $1.65 per square foot for projects under 25,000 square feet in Mountain View to $23.11 per square foot in Palo Alto. Of the cities in the table, Fremont, San Jose, Santa Clara, Redwood City, and Mountain View have fees for hotel uses that are lower than Sunnyvale's current fee rate. Milpitas has a fee rate that is very similar to Sunnyvale's fee. San Mateo and Palo Alto have higher fees compared to Sunnyvale's current fee rate. As noted above, Redwood City and San Mateo exempt any project that is smaller than 5,000 square feet and San Mateo provides a 25 percent reduction in the fee rate if the developer agrees to pay Area Standard Wages.

Industrial Fees in Other Jurisdictions

Among the jurisdictions in Table 9, there are a variety of approaches to assessing fees on industrial uses. Fremont, Milpitas, San Jose, Santa Clara, and Mountain View all have fees for industrial, manufacturing, warehouse, or similar uses. Within these jurisdictions, Fremont, Milpitas, and San Jose have fees that are lower than Sunnyvale's fee rate, while Santa Clara and Mountain View have higher fees. While the fee structures for Redwood City, San Mateo, and Palo Alto do not explicitly identify fees for industrial uses, an industrial use might be assessed a fee based on fee rates in these jurisdictions for service uses ($5.91 per square foot in Redwood City and $6.23 per square foot in San Mateo) or "other" uses ($23.11 per square foot in Palo Alto). As noted above, Redwood City and San Mateo exempt any project that is smaller than 5,000 square feet and San Mateo provides a 25 percent reduction in the fee rate if the developer agrees to pay Area Standard Wages.

Table 9: Non-Residential Housing Mitigation Fees in Other Jurisdictions

Sunnyvale	
Office/R&D/Industrial (first 25,000 SF):	$9.80
Office/R&D/Industrial (all remaining SF):	$19.50
Retail/Hotel:	$9.80
Fremont	
Office/R&D/Hotel/Retail/Service	$8.34
Light Industrial/Manufacturing/Warehouse	$4.17
Milpitas	
Office/Retail/Hotel	$9.86
R&D, Manufacturing, and Warehouse	$4.93
San Jose	
Office:	$0-$15.79
Industrial/R&D:	$0-$3.16
Retail:	No Fee
Hotel:	$5.26
Warehouse:	$5.26
Residential Care:	$6.32
Discount applied if paid prior to Building Permit issuance. Fees for office, industrial, and R&D vary based on location and project size.	
Santa Clara	
Office/R&D/Industrial Office (<20,000 SF):	$11.11
Office/R&D/Industrial Office (≥20,000 SF):	$22.22
Retail (<5,000 SF):	$0
Retail (≥ 5,000 SF):	$5.56
Hotel:	$5.56
Other Commercial:	$5.56
Light Industrial (<20,000 SF):	$5.56
Light Industrial (≥20,000 SF):	$11.11
Low-Intensity Uses:	$2.22
Redwood City	
Office/R&D/Medical Office	$23.62
Retail/Restaurants/Services/Hotel	$5.91
Fees apply to projects larger than 5,000 sq. ft.	
Mountain View	
High-Tech/Industrial/Office (first 10,000 SF):	$15.28
High-Tech/Industrial/Office (all remaining SF):	$30.57
Commercial/Entertainment/Hotel/Retail (first 25,000 SF):	$1.65
Commercial/Entertainment/Hotel/Retail (all remainig SF):	$3.27
San Mateo	
Office/R&D/Medical Offices	$31.14
Retail/Restaurants/Services	$6.23
Hotel	$12.46
Fees apply to projects larger than 5,000 sq. ft. Developers that agree to pay standard area wages to all construction workers on the project are entitled to a 25% reduction in the fee rate.	
Palo Alto	
Office/R&D	$68.50
Hotel/Retail/Other	$23.11

Source: BAE, 2022.

Financial Pro Forma Analysis

To test the financial feasibility of a potential change in the City of Sunnyvale's Housing Mitigation Fee, BAE prepared static pro forma financial feasibility models to evaluate the economics of developing office/R&D, retail, hotel, and industrial uses in Sunnyvale. The purpose of the financial feasibility analysis is to determine whether these products are financially feasible under current market conditions and if so, whether it may be possible to increase the Housing Mitigation Fee while still maintaining development feasibility.

Prototype Projects

The financial pro forma analysis evaluated five non-residential prototypes, which are summarized in Table 10 below. These prototypes include a four-story office prototype, an eight-story office prototype, a hotel prototype, a stand-alone retail space prototype, and a light industrial prototype. The office and hotel prototypes are based on recent projects that have been constructed or are currently in the development pipeline in Sunnyvale. The eight-story office prototype is also intended to model a development that could occur at a 1.35 FAR in the Moffett Park Specific Plan area once the plan is adopted. The industrial prototype is based on a project that was constructed in Sunnyvale in 2017. Sunnyvale has not experienced significant industrial construction activity in recent years.

The retail prototype is a one-story freestanding retail building with surface parking that is similar to buildings in the existing retail inventory in Sunnyvale. This prototype does not reflect the typical configuration for new retail space in Sunnyvale, much of which has been developed as part of mixed-use developments in conjunction with office or residential uses. Retail provided in these mixed-use developments typically generates little or no profit to the developer. Instead, this retail is provided as an amenity for the residential or office space or to meet City requirements for including retail in new developments. A freestanding prototype was used to evaluate the impact that the fee would have on a retail development that does not benefit from the inclusion of other uses to make the project profitable overall.

Methodology

The methodology used for this study involved preparation of static pro forma financial feasibility models for each of the prototypes described above. The static pro forma models represent a form of financial feasibility analysis that developers often use at a conceptual level of planning for a development project, as an initial test of financial feasibility for a development concept, to screen for viability. BAE developed the various modeling inputs and assumptions needed for the financial feasibility analysis based on interviews with non-residential developers that are active in Sunnyvale, data from industry publications and databases, and other research.

Residual Land Value. The pro forma models are structured to calculate the residual land value associated with each prototype. The residual land value is equal to the market value of the completed project at stabilization, net of total development costs and developer profit. The capitalized value of the project at stabilization is defined as the annual net operating income (NOI) from the project (i.e., annual income from the project net of operating expenses), divided by the capitalization rate (cap rate). The cap rate is a common metric used to estimate the value of a property based on its NOI, and varies based on property type, location, and other property-specific characteristics. The residual land value can be summarized as follows:

Capitalized Value at Stabilization (i.e., NOI / cap rate) – Total Development Costs
=
Residual Land Value

The residual land value approximates the maximum amount that a developer should be willing to pay for a given site, based on the value of the project that the developer would build on that site. In general, a development pro forma that shows a residual land value that is approximately equivalent to the typical sale price for land indicates a financially feasible project. A residual land value that is lower than the typical sale price for land typically indicates that there are financial feasibility challenges associated with constructing the project.

Residual Land Value Thresholds. Based on information provided during the developer interviews, this analysis generally assumes that land costs for office and hotel uses range from approximately $10 million to $13 million per acre. These land costs reflect the high value of the development that can be built in many areas of Sunnyvale where new hotels and offices have been built or proposed. Therefore, this analysis assumes that the office and hotel prototypes would need to generate a residual land value of $10 million to $13 million per acre to be financially feasible.

Any future construction of stand-alone retail and industrial projects in Sunnyvale could occur on land where high-value office and hotel properties would not be built due to zoning constraints or other factors, and which therefore have lower land values. Based on recent sales of commercial properties in Sunnyvale, this analysis assumes that the retail and industrial prototypes would need to generate a residual land value of at least $6 million to $7 million per acre to be financially feasible.

Financial Pro Forma Analysis Findings

Table 10 below shows the findings from the financial feasibility analysis, using the current Housing Mitigation Fee rates.

Office Development Feasibility. As shown in Table 10, the analysis found that both of the office prototypes are marginally financially feasible under current conditions. While both prototypes generate a residual land value that is within the range of typical land sale prices in Sunnyvale, neither is at the high end of the range. This suggests that these projects could be feasible, but that there could be challenges to achieving financial feasibility with these projects under some circumstances. These findings indicate that a change in the Housing Mitigation Fee that significantly impacts office construction costs could impact the feasibility of office development in Sunnyvale.

To further evaluate the potential impacts of an increase the Housing Mitigation Fee on office development feasibility, BAE prepared additional financial pro forma models to test the effect that a $22 Housing Mitigation Fee would have on the findings from the financial pro forma analysis. Similar to the current fee, this analysis assumed that half or this fee rate ($11 per square foot) would apply to the first 25,000 square feet of office space and that the remainder would be charged at a rate of $22 per square foot. The findings from this analysis are summarized in Table 11 below.

As shown, increasing the fee from the current rate to a rate of $22 per square foot has a small impact on the feasibility of both office prototypes. While both prototypes remain marginally feasible, the higher fee rate would reduce the residual land value by approximately $90,000 per acre for the four-story prototype and by approximately $160,000 per acre for the eight-story prototype.

These findings suggest that increasing the Housing Mitigation Fee to $22 per square foot for office and R&D uses would be unlikely to significantly impact the pace of new office and R&D construction in Sunnyvale. Sunnyvale has a consistently strong office market, with office growth remaining strong when the City implemented previous fee increases and during prior economic slowdowns. Costar tracks almost 15 million square feet of office space that was constructed in Sunnyvale over the past 20 years, including in years following the Great Recession. This total may undercount the scale of office development in Sunnyvale during this period, as Costar's inventory may not include all office properties. There are many additional office developments in the City's development pipeline. Demand for office development remains high in the Moffett Park Specific Plan area and elsewhere in the City despite current market uncertainty and high construction costs. These trends indicate that Sunnyvale is likely to continue to experience healthy demand for office space over the near-term and long-term, and that an increase in the Housing Mitigation Fee to $22 per square foot would have a minimal impact on the overall office development environment in Sunnyvale.

Retail, Hotel, and Industrial Feasibility. Table 10 shows that the retail, hotel, and industrial prototypes are not currently feasible. For retail and industrial uses, these findings are consistent with recent development trends in Sunnyvale, which has experienced little recent construction of new stand-alone retail or industrial space. For the hotel prototype, feasibility challenges are a reflection of high construction costs coupled with uncertainty regarding future hotel room rates and occupancy levels. It should be noted that the Housing Mitigation Fee is fairly insignificant in the overall financial feasibility of the retail, hotel, or industrial prototypes. All three prototypes would be infeasible even with no Housing Mitigation Fee applied to the projects.

Table 10: Summary Financial Pro Forma Analysis with Current Housing Mitigation Fee Rates

	4-Story Office		8-Story Office		Retail		Hotel		Industrial	
	4-story building with structured parking garage on 4.0 acres		8-story building with a mix of underground, podium, and surface parking on 6.0 acres		Freestanding one-story retail building with surface parking on one-acre site		5-story, 164 room hotel development with mostly underground parking on 1.5 acres		Single story light manufacturing building with surface parking on 1.5 acres	
Lot Size (acres)	4.0	acres	6.0	acres	1.0	acre	1.5	acres	1.5	acres
Gross Building Area	138,000	gsf	350,000	gsf	10,750	gsf	90,000	gsf	20,000	gsf
Number of Stories	4		8		1		5		1	
Floor Area Ratio	0.79		1.35		0.25		1.38		0.31	
Parking Ratio	3.3	spaces/1,000 sf	3.3	spaces/1,000 sf	4.5	spaces/1,000 sf	0.8	spaces/room	3.3	spaces/1,000 sf
Hard Construction Costs	$83,296,200	total	$238,911,778	total	$4,796,550	total	$60,194,700	total	$7,989,200	total
	$604	per sq. ft.	$683	per sq. ft.	$446	per sq. ft.	$367,041	per room	$399	per sq. ft.
Total Development Costs (excluding land)	$124,728,385	total	$359,535,744	total	$7,098,931	total	$89,593,866	total	$11,769,184	total
	$904	per sq. ft.	$1,027	per sq. ft.	$660	per sq. ft.	$546,304	per room	$588	per sq. ft.
Capitalized Value	$170,804,571	total	$433,200,000	total	$11,140,909	total	$49,460,073	total	$15,675,000	total
	$1,238	per sq. ft.	$1,238	per sq. ft.	$1,036	per sq. ft.	$301,586	per room	$784	per sq. ft.
Residual Land Value	$46,076,187	total	$73,664,256	total	$4,041,978	total	($40,133,793)	total	$3,905,816	total
	$11,519,047	per acre	$12,376,858	per acre	$4,041,978	per acre	($26,755,862)	per acre	$2,603,877	per acre
Feasible?	**Marginal**		**Marginal**		**No**		**No**		**No**	

Source: BAE, 2022.

Table 11: Office Prototype Pro Forma Analysis Findings, Current Fee and Higher Fee Scenario

	4-Story Office		8-Story Office	
	Current Fee	**$22 Fee Scenario (a)**	**Current Fee Rates**	**$22 Fee Scenario (a)**
Hard Construction Costs (per sq. ft.)	$604	$604	$683	$683
Total Development Costs (excluding land, per sq. ft.)	$904	$906	$1,027	$1,030
Capitalized Value (per sq. ft.)	$1,238	$1,238	$1,238	$1,238
Residual Land Value (per acre)	$11,519,047	$11,429,801	$12,376,858	$12,213,518
Feasible?	**Marginal**	**Marginal**	**Marginal**	**Marginal**

Note:
(a) $22 Fee Scenario assumes a fee of $11 per square foot for the first 25,000 square feet and $22 per square foot for all remaining square feet.

Source: BAE, 2022.

Fee as Share of Development Costs

One method for assessing the impact that the Housing Mitigation Fee might have on new non-residential development involves evaluating potential fees as a proportion of total development costs. The concept underlying this approach is that fees are unlikely to have a major impact on development feasibility if the fee rate is set to be equal to a relatively low share of total development costs.

When the City of Sunnyvale most recently updated the Housing Mitigation Fee in 2015, the adopted fee rates were $7.50 per square foot for the first 25,000 net new square feet of office/R&D or industrial uses and $15.00 per square foot for all remaining square feet of office/R&D or industrial space. Retail and lodging uses were charged a fee of $7.50 per net new square foot. When the fee was adopted in 2015, these fee rates were equal to approximately three to eight percent of total development costs (not including land) for each use, as identified in a feasibility study that was conducted as part of the 2015 fee update process.

Table 12 below shows the current Housing Mitigation Fees as a percent of total development costs (not including land), with total development costs based on the financial pro forma analysis provided above. As shown, the current fees are equal to approximately one to three percent of total development costs, depending on the use.

Table 12 also shows various fee rate scenarios that demonstrate the Housing Mitigation Fee rates that would be equal to two, three, four, and five percent of the total development costs for each prototype, not including land or developer profit. As shown, fees that are equal to two to five percent of total development costs would be equal to approximately $18 to $44 per square foot for the four-story office prototype, $20 to $51 per square foot for the eight-story office prototype, $12 to $29 per square foot for the industrial prototypes, $13 to $33 per square foot for the retail prototype, and $20 to $49 per square foot for the hotel prototype.

Table 12: Housing Mitigation Fees as a Percent of Total Development Cost

	4-Story Office	8-Story Office	Industrial	Retail	Hotel
TCD/Sq. Ft. (not including land) (a)	$884	$1,017	$579	$651	$986
Current Fees (b)	$19.50	$19.50	$19.50	$9.80	$9.80
Current Fees as a % of Total Dev. Costs (b)	2.2%	1.9%	3.4%	1.5%	1.0%
Fee Rate Scenario					
Fee Rate = 2% of Total Development Costs	$17.69	$20.35	$11.57	$13.01	$19.71
Fee Rate = 3% of Total Development Costs	$26.53	$30.52	$17.36	$19.52	$29.57
Fee Rate = 4% of Total Development Costs	$35.37	$40.70	$23.15	$26.02	$39.43
Fee Rate = 5% of Total Development Costs	$44.22	$50.87	$28.93	$32.53	$49.28

Notes:
(a) Based on the financial pro formas shown in Appendix B. Does not include land or developer profit.
(b) Analysis of current fees as a percent of total development cost does not account for reduced fee rate that applies to the first 25,000 square feet of office/R&D and industrial space.

Sources: City of Sunnyvale, 2022; BAE, 2022.

SUMMARY OF FINDINGS AND RECOMMENDATIONS

This study provides an analysis of the City of Sunnyvale's Housing Mitigation Fee, including an evaluation of the maximum legal (nexus-based) fee rates and a financial feasibility analysis to evaluate potential fee rates. The nexus analysis portion of this study defines the maximum amount of Housing Mitigation Fees that the City of Sunnyvale could charge based on the relationship between new non-residential development, the need for affordable housing, and the public funding needed to construct the housing necessary to address that affordable housing need. The financial feasibility analysis evaluates the financial feasibility of various fee rates to assess the impact that changes in the fee might have on development feasibility. Under the California Mitigation Fee Act, the City cannot adopt fees that exceed the maximum legal fee rates. The City does have the ability to adopt fees that are lower than the maximum legal fees based on financial feasibility considerations or other factors.

Findings

The findings from this study are summarized in Table 13 and are as follows:

New non-residential development in Sunnyvale generates a need for affordable workforce housing. A share of the worker households generated by new non-residential development consists of extremely low, very low, and low incomes households, who are typically unable to find affordable housing in Sunnyvale. As a result, new publicly subsidized housing is necessary to address the need for housing among these households.

The maximum legal (i.e., nexus-based) fee rates are equal to $104 per square foot for office/R&D uses, $190 per square foot for retail/restaurant uses, $58 per square foot for lodging uses, and $35 per square foot for industrial uses. These are the maximum amounts that the City of Sunnyvale could charge for each use based on the demand for affordable housing funding that each use generates. These are also the fee rates that the City would need to charge to fully mitigate the need for affordable housing that new non-residential development generates.

Sunnyvale's current Housing Mitigation Fee rates are lower than the maximum legal fee rates. Under the current fee schedule, office/R&D and industrial uses are charged a fee of $9.80 per square foot for the first 25,000 net new square feet of a project and $19.50 per square foot for all remaining square feet. Retail and lodging uses are charged a fee of $9.80 per net new square foot.

Even with no change in the current fee rates, office development is marginally feasible and development of other uses faces significant feasibility challenges. The financial pro forma analysis found that retail, hotel, and industrial uses are currently infeasible based on current market conditions. The analysis found that office development is marginally feasible, meaning that development of new office space is financially feasible under some conditions but is nonetheless challenging. These findings are attributable to the high costs of construction coupled with ongoing market uncertainty due to the impacts of the COVID-19 pandemic. The current Housing Mitigation Fee is fairly insignificant in terms of the overall impact on the financial feasibility of new development. As shown in Table 12, the current fee rates are equal to approximately one to three percent of the total pre-land development cost, depending on the use.

Sunnyvale's current Housing Mitigation Fees are well within the range of fees charged by other nearby jurisdictions. A survey of eight nearby cities found that the housing mitigation fees charged by nearby jurisdictions include fees that are higher and lower than the rates that Sunnyvale currently charges. Among those surveyed, Sunnyvale's fees were generally at the lower end for new office development and at the higher end for new retail, hotel, or industrial development.

Recommendations

The findings from this analysis support the following recommendations:

1. **No change in the Housing Mitigation Fee rates for retail, hotel, or industrial uses.** Each of these uses faces financial feasibility challenges in the current development environment. In addition, Sunnyvale's fees for these uses are already toward the upper end of the comparison jurisdictions evaluated in this study.
2. **Consider an increase in the Housing Mitigation Fee for office uses, up to a maximum of $11 per square foot for the first 25,000 square feet and $22 per square foot for all remaining square feet.** Although this is about a 12.2% to 12.8% increase in the fee, an increase of this magnitude would have a relatively small overall effect on feasibility. This fee would be equal to approximately one percent of total development costs (not including land) for the first 25,000 square feet and two percent of total development costs (not including land) for all remaining square feet. While the financial feasibility of new development would remain marginal, this fee increase would not have a significant impact on overall feasibility. In addition, this fee rate is well within the range charged by other nearby jurisdictions.
3. **Consider potential strategies to make fee increases more feasible.** This could include phasing the fee increase in over time, providing fee discounts for early payment, providing fee discounts for projects that pay a prevailing wage to all construction workers, or providing developers with the option to build affordable units rather than pay the fee.

Table 13: Summary of Findings and Recommendations

Use Type	Maximum Legal (Nexus-Based) Fee	Current Fee Rate	Feasibility Findings (with no change in fee)	Maximum Recommended Fee Rate	Maximum Recommended Fee Rate as a % of TDC
Office/R&D	$104.15	$9.80 first 25,000 sq. ft. $19.50 all sq. ft. >25,000	Marginal	$11 first 25,000 sq. ft. $22 all sq. ft. >25,000	1% first 25,000 sq. ft. 2% all sq. ft. >25,000
Retail/Restaurant	$189.74	$9.80	Not Feasible	No change	2%
Lodging	$58.10	$9.80	Not Feasible	No change	1%
Industrial/Warehouse	$35.37	$9.80 first 25,000 sq. ft. $19.50 all sq. ft. >25,000	Not Feasible	No change	2% first 25,000 sq. ft. 3% all sq. ft. >25,000

Source: BAE, 2022.

APPENDIX A: REPRESENTATIVE INDUSTRIES BY LAND USE

Land Use	NAICS Industry	Census Code	
Office/R&D	51	51	Information
	52	52	Finance & Insurance
	53	53	Real Estate & Rental & Leasing
	54	54	Professional, Scientific, and Technical Services
	55	55	Management of Companies and Enterprises
	5611	561M	Administratrive & Support Services
	5613	5613	Employment Services
	5614	5614	Business Support Serivces
	5615	5615	Travel Arrangment & Reservation Services
Hotel	721	7211	Traveler accommodation
Industrial/Warehouse	31-33	31-33	Manufacturing
	4231	4231	Motor vehicle and motor vehicle parts and supplies merchant wholesalers
	4232	4232	Furniture and home furnishing merchant wholesalers
	4233	4233	Lumber and other construction materials merchant wholesalers
	4234	4234	Professional and commercial equipment and supplies merchant wholesalers
	4235	4235	Metals and minerals, except petroleum, merchant wholesalers
	4236	4236	Household appliances and electrical and electronic goods merchant wholesalers
	4237	4237	Hardware, and plumbing and heating equipment, and supplies merchant wholesalers
	4238	4238	Machinery, equipment, and supplies merchant wholesalers
	42393	42393	Recyclable material merchant wholesalers
	4239 exc. 42393	4239Z	Miscellaneous durable goods merchant wholesalers
	4241	4241	Paper and paper products merchant wholesalers
	4242, 4246	424M	Drugs, sundries, and chemical and allied products merchant wholesalers
	4243	4243	Apparel, piece goods, and notions merchant wholesalers
	4244	4244	Grocery and related product merchant wholesalers
	4245	4245	Farm product raw material merchant wholesalers
	4247	4247	Petroleum and petroleum products merchant wholesalers
	4248	4248	Alcoholic beverages merchant wholesalers
	42491	42491	Farm supplies merchant wholesalers
	4249 exc. 42491	4249Z	Miscellaneous nondurable goods merchant wholesalers
	488	488	Services incidental to transportation
	493	493	Warehousing and storage
	8111 exc. 811192	8111Z	Automotive repair and maintenance except car washes
	8112	8112	Electronic and precision equipment repair and maintenance
	8113	8113	Commercial and industrial machinery and equipment repair and maintenance
	8114	8114	Personal and household goods repair and maintenance
Retail	44-45	44-45	Retail, excluding 441 (Motor Vehicles and Parts) and 454 (Nonstore retailers)
	722	722Z	Restaurants and other food services
		7224	Drinking places, alcoholic beverages

APPENDIX B: PRO FORMAS

This appendix includes a description of the key assumptions used in the financial pro formas used in this study as well as the detailed pro formas.

Key Assumptions

Hard Costs: Hard costs are the costs associated with the physical construction of a building, including all construction materials and labor. The hard cost assumptions are primarily based on information provided by developers that were interviewed for this study. The study also relies on published sources and BAE's experience with recent projects in the Sunnyvale area to cross-check the information provided by developers and to fill gaps in the information that developers were able to provide.

Soft Costs: This analysis assumes that soft costs are equal to 20 percent of hard costs. This soft cost estimate includes engineering, architecture, and CEQA costs, as well as City cost-recovery fees for planning, permitting, and entitlements, but does not include financing costs or impact fees. Financing costs and impact fees were calculated separately and included in total development costs as separate line items.

Financing Costs: This analysis assumes a 6.0 percent interest rate on construction loans and loan fees equal to 1.0 percent of the loan amount. These assumptions are consistent with information provided by developers interviewed for this study as well as BAE's experience with recent projects in the region.

Impact Fees: BAE calculated impact fees for each prototype based on the City's impact fee schedule and the school district impact fee schedules, applied to the characteristics of each prototype. The impact fees for the four-story office prototype are based on the fees that apply in the Peery Park area and include the Sense of Place fee, Wastewater Infrastructure fee, Community benefits fee, and Specific Plan Maintenance fee. These fees were also used as a proxy for the fees that could apply to the eight-story prototype. However, because the Moffett Park Specific Plan is still in progress, the fee rates that will apply to new development in that area are currently unknown. To the extent that fees in the Moffett Park Specific Plan area vary substantially from those show in these pro formas, the impact of these fees could effect the findings from this analysis.

Commercial Rental Rates: For the office and retail prototypes, this analysis uses rental rates that are based on information provided by developers during the developer interviews and cross-checked against data from Costar. The developers that were interviewed for this study did not have direct recent experience with developing new industrial space in Sunnyvale, and therefore the analysis uses data from Costar to estimate industrial rents.

Hotel Operating Revenues and Expenses. This analysis uses data from Costar to estimate hotel room rates and occupancy rates. The hotel market continues to be impacted by the COVID-19 pandemic, with lower room rates and occupancy rates than in 2019, but has demonstrated a significant recovery from the most severe impacts of the pandemic. This analysis uses the 2019 average occupancy and room rates for upscale and upper upscale hotel properties in Sunnyvale on the basis that developers would likely need to anticipate a return to pre-pandemic conditions in order to pursue future hotel development.

Capitalization Rate: The capitalization rate (or cap rate) is defined as the net operating income that a property generates divided by the estimated value of the property. Capitalization rates are a common metric used to estimate the value of a property based on its net operating income, and vary by property type, location, and other property-specific characteristics. This analysis uses information from developer interviews, Costar, and the CBRE United States Cap Rate Survey for the second half of 2022 to estimate cap rates for each of the prototypes.

Table B-1: Financial Pro Forma – Four-Story Office Prototype, Current Fee Rates

Development Program Assumptions	
Site	
Site area (acres)	4.0
Site area (sq. ft.)	174,240
Structure	
Building Size - Gross SF	138,000
Common Area SF	6,900
Net Rentable SF	131,100
Common Area as a % of Gross	5%
Parking (spaces)	**456**
Surface	46
Structured	410
Underground	0
Development Cost & Income Assumptions	
Hard Costs	
Site Work, per site SF	$30
Construction hard costs, per SF	$320
Tenant improvements, per rentable SF	$100
Parking - surface, per space	$6,500
Parking - structured, per space	$50,000
Parking - underground, per space	$90,000
Soft Costs	
Soft Costs as a % of Hard Costs	20%
Developer Fee as % of Hard Costs	4%
Developer Profit as % of Total Project Costs	10%
Impact Fees & Extractions	
Misc. Impact Fees, not including HMF (per SF)	$25.00
Housing Mitigation Fee (per SF, 1st 25,000 SF)	$9.80
Housing Mitigation Fee (per SF >25,000 SF)	$19.50
Operating Revenues & Expenses	
Rental Rate (per SF per month, NNN)	$6.00
Vacancy rate	5%
Construction Financing	
Loan to cost ratio	70%
Interest rate	6%
Loan fees (points)	1%
Loan period (months)	18
Drawdown factor	50%
Capitalization Rate	5.25%

Development Cost Analysis	
Hard Costs	
Site work	$5,227,200
Hard construction costs	$44,160,000
TI allowance costs	$13,110,000
Parking - surface	$299,000
Parking - structured	$20,500,000
Parking - underground	$0
Total Hard Costs	**$83,296,200**
Hard Costs per Built Sq. Ft.	*$604*
Soft Costs	
Soft costs	$16,659,240
Impact fees	$3,450,000
Housing Mitigation Fee	$2,448,500
Developer Fee	$3,331,848
Total Soft Costs	**$25,889,588**
Construction Financing Costs	
Construction Period Interest	$3,439,352
Points	$764,301
Total Financing Costs	**$4,203,653**
Developer Profit	**$11,338,944**
Total Development Costs excl. Land Value	**$124,728,385**
Cost per built sq. ft.	$904
Feasibility Analysis	
Projected Income	
Gross Annual Revenue	$9,439,200
Less Vacancy	($471,960)
Net Operating Income (NOI)	**$8,967,240**
Capitalized Value	$170,804,571
Less Development Costs	($124,728,385)
Residual Land Value	**$46,076,187**
Residual Land Value/Acre	**$11,519,047**

Table B-2: Financial Pro Forma – Eight-Story Office Prototype, Current Fee Rates

Development Program Assumptions

Site	
Site area (acres)	6.0
Site area (sq. ft.)	259,259
Structure	
Building Size - Gross SF	350,000
Common Area SF	17,500
Net Rentable SF	332,500
Common Area as a % of Gross	5%
Parking (spaces)	**1,156**
Surface	116
Structured	693
Underground	347

Development Cost & Income Assumptions

Hard Costs	
Site Work, per site SF	$30
Construction hard costs, per SF	$375
Tenant improvements, per rentable SF	$100
Parking - surface, per space	$6,500
Parking - structured, per space	$50,000
Parking - underground, per space	$90,000
Soft Costs	
Soft Costs as a % of Hard Costs	20%
Developer Fee as % of Hard Costs	4%
Developer Profit as % of Total Project Costs	10%
Impact Fees & Extractions	
Misc. Impact Fees, not including HMF (per SF)	$25.00
Housing Mitigation Fee (per SF, 1st 25,000 SF)	$9.80
Housing Mitigation Fee (per SF >25,000 SF)	$19.50
Operating Revenues & Expenses	
Rental Rate (per SF per month, NNN)	$6.00
Vacancy rate	5%
Construction Financing	
Loan to cost ratio	70%
Interest rate	6%
Loan fees (points)	1%
Loan period (months)	24
Drawdown factor	50%
Capitalization Rate	5.25%

Development Cost Analysis

Hard Costs	
Site work	$7,777,778
Hard construction costs	$131,250,000
TI allowance costs	$33,250,000
Parking - surface	$754,000
Parking - structured	$34,650,000
Parking - underground	$31,230,000
Total Hard Costs	**$238,911,778**
Hard Costs per Built Sq. Ft.	*$683*
Soft Costs	
Soft costs	$47,782,356
Impact fees	$8,750,000
Housing Mitigation Fee	$6,582,500
Developer Fee	$9,556,471
Total Soft Costs	**$72,671,327**
Construction Financing Costs	
Construction Period Interest	$13,086,490
Points	$2,181,082
Total Financing Costs	**$15,267,572**
Developer Profit	**$32,685,068**
Total Development Costs excl. Land Value	**$359,535,744**
Cost per built sq. ft.	$1,027

Feasibility Analysis

Projected Income	
Gross Annual Revenue	$23,940,000
Less Vacancy	($1,197,000)
Net Operating Income (NOI)	**$22,743,000**
Capitalized Value	$433,200,000
Less Development Costs	($359,535,744)
Residual Land Value	**$73,664,256**
Residual Land Value/Acre	**$12,376,858**

Table B-3: Financial Pro Forma – Retail Prototype, Current Fee Rates

Development Program Assumptions	
Site	
Site area (acres)	1.0
Site area (sq. ft.)	43,560
Structure	
Building Size - Gross SF	10,750
Parking (spaces)	**49**
Surface	49
Structured	0
Underground	0

Development Cost & Income Assumptions	
Hard Costs	
Site Work, per site SF	$30
Construction hard costs, per SF	$230
Tenant improvements, per rentable SF	$65
Parking - surface, per space	$6,500
Parking - structured, per space	$50,000
Parking - underground, per space	$90,000
Soft Costs	
Soft Costs as a % of Hard Costs	20%
Developer Fee as % of Hard Costs	4%
Developer Profit as % of Total Project Costs	10%
Impact Fees & Extractions	
Misc. Impact Fees, not including HMF (per SF)	$15.00
Housing Mitigation Fee (per SF)	$9.80
Operating Revenues & Expenses	
Rental Rate (per SF per month, NNN)	$5.00
Vacancy rate	5%
Construction Financing	
Loan to cost ratio	70%
Interest rate	6%
Loan fees (points)	1%
Loan period (months)	18
Drawdown factor	50%
Capitalization Rate	5.50%

Development Cost Analysis	
Hard Costs	
Site work	$1,306,800
Hard construction costs	$2,472,500
TI allowance costs	$698,750
Parking - surface	$318,500
Parking - structured	$0
Parking - underground	$0
Total Hard Costs	**$4,796,550**
Hard Costs per Built Sq. Ft.	*$446*
Soft Costs	
Soft costs	$959,310
Impact fees	$161,250
Housing Mitigation Fee	$105,350
Developer Fee	$191,862
Total Soft Costs	**$1,417,772**
Construction Financing Costs	
Construction Period Interest	$195,751
Points	$43,500
Total Financing Costs	**$239,251**
Developer Profit	**$645,357**
Total Development Costs excl. Land Value	**$7,098,931**
Cost per built sq. ft.	$660

Feasibility Analysis	
Projected Income	
Gross Annual Revenue	$645,000
Less Vacancy	($32,250)
Net Operating Income (NOI)	**$612,750**
Capitalized Value	$11,140,909
Less Development Costs	($7,098,931)
Residual Land Value	**$4,041,978**
Residual Land Value/Acre	**$4,041,978**

Table B-4: Financial Pro Forma – Industrial Prototype, Current Fee Rates

Development Program Assumptions	
Site	
Site area (acres)	1.5
Site area (sq. ft.)	65,340
Structure	
Building Size - Gross SF	20,000
Parking (spaces)	**66**
Surface	66
Structured	0
Underground	0

Development Cost & Income Assumptions	
Hard Costs	
Site Work, per site SF	$30
Construction hard costs, per SF	$280
Tenant improvements, per rentable SF	$0
Parking - surface, per space	$6,500
Parking - structured, per space	$50,000
Parking - underground, per space	$90,000
Soft Costs	
Soft Costs as a % of Hard Costs	20%
Developer Fee as % of Hard Costs	4%
Developer Profit as % of Total Project Costs	10%
Impact Fees & Extractions	
Misc. Impact Fees, not including HMF (per SF)	$10.00
Housing Mitigation Fee (per SF, 1st 25,000 SF)	$9.80
Housing Mitigation Fee (per SF >25,000 SF)	$19.50
Operating Revenues & Expenses	
Rental Rate (per SF per month, NNN)	$2.75
Vacancy rate	5%
Construction Financing	
Loan to cost ratio	70%
Interest rate	6%
Loan fees (points)	1%
Loan period (months)	18
Drawdown factor	50%
Capitalization Rate	4.00%

Development Cost Analysis	
Hard Costs	
Site work	$1,960,200
Hard construction costs	$5,600,000
Parking - surface	$429,000
Parking - structured	$0
Parking - underground	$0
Total Hard Costs	**$7,989,200**
Hard Costs per Built Sq. Ft.	*$399*
Soft Costs	
Soft costs	$1,597,840
Impact fees	$200,000
Housing Mitigation Fee	$196,000
Developer Fee	$319,568
Total Soft Costs	**$2,313,408**
Construction Financing Costs	
Construction Period Interest	$324,532
Points	$72,118
Total Financing Costs	**$396,650**
Developer Profit	**$1,069,926**
Total Development Costs excl. Land Value	**$11,769,184**
Cost per built sq. ft.	$588

Feasibility Analysis	
Projected Income	
Gross Annual Revenue	$660,000
Less Vacancy	($33,000)
Net Operating Income (NOI)	**$627,000**
Capitalized Value	$15,675,000
Less Development Costs	($11,769,184)
Residual Land Value	**$3,905,816**
Residual Land Value/Acre	**$2,603,877**

Table B-5: Financial Pro Forma – Hotel Prototype, Current Fee Rates

Development Program Assumptions	
Site	
Site area (acres)	1.5
Site area (sq. ft.)	65,340
Structure	
Building Size - Gross SF	90,000
Number of Hotel Rooms	164
Parking (spaces)	**131**
Surface	33
Structured	0
Underground	98

Development Cost & Income Assumptions	
Hard Costs	
Site Work, per site SF	$30
Construction hard costs, per room	$275,000
FF&E, per room	$25,000
Parking - surface, per space	$6,500
Parking - structured, per space	$50,000
Parking - underground, per space	$90,000
Soft Costs	
Soft Costs as a % of Hard Costs	20%
Developer Fee as % of Hard Costs	4%
Developer Profit as % of Total Project Costs	12%
Impact Fees & Extractions	
Misc. Impact Fees, not including HMF (per SF)	$19.00
Housing Mitigation Fee (per SF)	$9.80
Operating Revenues & Expenses	
Room Revenue (per occupied room night)	$222
Other Revenue (per occupied room night)	$44
Expenses (as a % of operating revenue)	65%
Occupancy Rate	71%
Construction Financing	
Loan to cost ratio	65%
Interest rate	6%
Loan fees (points)	1%
Loan period (months)	18
Drawdown factor	50%
Capitalization Rate	8.00%

Development Cost Analysis	
Hard Costs	
Site work	$1,960,200
Hard construction costs	$45,100,000
FF&E	$4,100,000
Parking - surface	$214,500
Parking - structured	$0
Parking - underground	$8,820,000
Total Hard Costs	**$60,194,700**
Hard Costs per Room	*$367,041*
Soft Costs	
Soft costs	$12,038,940
Impact fees	$1,710,000
Commercial Linkage Fee	$882,000
Developer Fee	$2,407,788
Total Soft Costs	**$17,038,728**
Construction Financing Costs	
Construction Period Interest	$2,259,078
Points	$502,017
Total Financing Costs	**$2,761,095**
Developer Profit	**$9,599,343**
Total Development Costs excl. Land Value	**$89,593,866**
Cost per room	$546,304
Cost per built sq. ft.	$995

Feasibility Analysis	
Projected Income	
Gross Revenue	$11,305,160
Less Expenses	($7,348,354)
Net Operating Income (NOI)	**$3,956,806**
Capitalized Value	$49,460,073
Less Development Costs	($89,593,866)
Residual Land Value	**($40,133,793)**
Residual Land Value/Acre	**($26,755,862)**

Table B-6: Financial Pro Forma – Four-Story Office Prototype, Increased Fee Rate Scenario

Development Program Assumptions	
Site	
Site area (acres)	4.0
Site area (sq. ft.)	174,240
Structure	
Building Size - Gross SF	138,000
Common Area SF	6,900
Net Rentable SF	131,100
Common Area as a % of Gross	5%
Parking (spaces)	**456**
Surface	46
Structured	410
Underground	0

Development Cost & Income Assumptions	
Hard Costs	
Site Work, per site SF	$30
Construction hard costs, per SF	$320
Tenant improvements, per rentable SF	$100
Parking - surface, per space	$6,500
Parking - structured, per space	$50,000
Parking - underground, per space	$90,000
Soft Costs	
Soft Costs as a % of Hard Costs	20%
Developer Fee as % of Hard Costs	4%
Developer Profit as % of Total Project Costs	10%
Impact Fees & Extractions	
Misc. Impact Fees, not including HMF (per SF)	$25.00
Housing Mitigation Fee (per SF, 1st 25,000 SF)	$11.00
Housing Mitigation Fee (per SF >25,000 SF)	$22.00
Operating Revenues & Expenses	
Rental Rate (per SF per month, NNN)	$6.00
Vacancy rate	5%
Construction Financing	
Loan to cost ratio	70%
Interest rate	6%
Loan fees (points)	1%
Loan period (months)	18
Drawdown factor	50%
Capitalization Rate	5.25%

Development Cost Analysis	
Hard Costs	
Site work	$5,227,200
Hard construction costs	$44,160,000
TI allowance costs	$13,110,000
Parking - surface	$299,000
Parking - structured	$20,500,000
Parking - underground	$0
Total Hard Costs	**$83,296,200**
Hard Costs per Built Sq. Ft.	*$604*
Soft Costs	
Soft costs	$16,659,240
Impact fees	$3,450,000
Housing Mitigation Fee	$2,761,000
Developer Fee	$3,331,848
Total Soft Costs	**$26,202,088**
Construction Financing Costs	
Construction Period Interest	$3,449,196
Points	$766,488
Total Financing Costs	**$4,215,684**
Developer Profit	**$11,371,397**
Total Development Costs excl. Land Value	**$125,085,369**
Cost per built sq. ft.	$906

Feasibility Analysis	
Projected Income	
Gross Annual Revenue	$9,439,200
Less Vacancy	($471,960)
Net Operating Income (NOI)	**$8,967,240**
Capitalized Value	$170,804,571
Less Development Costs	($125,085,369)
Residual Land Value	**$45,719,202**
Residual Land Value/Acre	**$11,429,801**

Table B-7: Financial Pro Forma – Eight-Story Office Prototype, Increased Fee Rate Scenario

Development Program Assumptions	
Site	
Site area (acres)	6.0
Site area (sq. ft.)	259,259
Structure	
Building Size - Gross SF	350,000
Common Area SF	17,500
Net Rentable SF	332,500
Common Area as a % of Gross	5%
Parking (spaces)	**1,156**
Surface	116
Structured	693
Underground	347

Development Cost & Income Assumptions	
Hard Costs	
Site Work, per site SF	$30
Construction hard costs, per SF	$375
Tenant improvements, per rentable SF	$100
Parking - surface, per space	$6,500
Parking - structured, per space	$50,000
Parking - underground, per space	$90,000
Soft Costs	
Soft Costs as a % of Hard Costs	20%
Developer Fee as % of Hard Costs	4%
Developer Profit as % of Total Project Costs	10%
Impact Fees & Extractions	
Misc. Impact Fees, not including HMF (per SF)	$25.00
Housing Mitigation Fee (per SF, 1st 25,000 SF)	$11.00
Housing Mitigation Fee (per SF >25,000 SF)	$22.00
Operating Revenues & Expenses	
Rental Rate (per SF per month, NNN)	$6.00
Vacancy rate	5%
Construction Financing	
Loan to cost ratio	70%
Interest rate	6%
Loan fees (points)	1%
Loan period (months)	24
Drawdown factor	50%
Capitalization Rate	5.25%

Development Cost Analysis	
Hard Costs	
Site work	$7,777,778
Hard construction costs	$131,250,000
TI allowance costs	$33,250,000
Parking - surface	$754,000
Parking - structured	$34,650,000
Parking - underground	$31,230,000
Total Hard Costs	**$238,911,778**
Hard Costs per Built Sq. Ft.	*$683*
Soft Costs	
Soft costs	$47,782,356
Impact fees	$8,750,000
Housing Mitigation Fee	$7,425,000
Developer Fee	$9,556,471
Total Soft Costs	**$73,513,827**
Construction Financing Costs	
Construction Period Interest	$13,121,875
Points	$2,186,979
Total Financing Costs	**$15,308,855**
Developer Profit	**$32,773,446**
Total Development Costs excl. Land Value	**$360,507,905**
Cost per built sq. ft.	$1,030

Feasibility Analysis	
Projected Income	
Gross Annual Revenue	$23,940,000
Less Vacancy	($1,197,000)
Net Operating Income (NOI)	**$22,743,000**
Capitalized Value	$433,200,000
Less Development Costs	($360,507,905)
Residual Land Value	**$72,692,095**
Residual Land Value/Acre	**$12,213,518**