



# **OAKLAND JOBS / HOUSING IMPACT FEE REVIEW AND UPDATE**

*Prepared for*

**CITY OF OAKLAND**

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# I. INTRODUCTION AND FINDINGS

## JOBS/HOUSING IMPACT FEE

The purpose of this report is to support the findings that the Mitigation Fee Act (Act) requires a local agency to make every five years for each development impact fee that the agency imposes on development projects.<sup>1</sup> This report provides the information and analysis required to make these findings for the City’s Jobs/Housing Impact Fee.

Section 66001(d)(1) of the Act requires that:

For the fifth fiscal year following the first deposit into the account or fund, and every five years thereafter, the local agency shall make all of the following findings<sup>2</sup> with respect to that portion of the account or fund remaining unexpended, whether committed or uncommitted.

The City of Oakland adopted a Jobs/Housing Impact Fee on July 30, 2002 (Oakland Municipal Code Chapter 15.68; Ordinance No. 12442 C.M.S. and Ordinance No. 13365 C.M.S.). The citywide impact fee went into effect for development projects submitting a building permit application on or after July 1, 2005. The Jobs/Housing Impact Fee is assessed on two types of nonresidential development: office use and warehouse use. The same fee amount is assessed throughout the city. The amount of the impact fee is adjusted annually.<sup>3</sup>

The Jobs/Housing Impact Fee was adopted based on the findings of a nexus study (*Commercial Development Linkage Fee Analysis, City of Oakland*, prepared by David Paul Rosen & Associates, September 13, 2001), as required under the California Mitigation Fee Act (California Government Code Section 66000 – 66008). The 2001 analysis evaluated office, warehouse/distribution, retail, and hotel building types. The 2001 report included evaluation of the potential economic impacts of a commercial/industrial linkage fee on future commercial/industrial development in Oakland.

In addition to supporting Mitigation Fee Act findings, this review expands the range of land uses evaluated to include all the nonresidential land uses subject to Oakland’s Transportation Impact Fee and Capital Improvements Impact Fee: office, retail/commercial, hotel/motel, institutional, industrial,warehouse/distribution, and self- or mini-storage. The review also provides updates to the demand and cost factors in the nexus analysis resulting in an updated amount for the maximum legal Jobs/Housing Impact Fee.

The findings made below are based on the fee being charged on June 30, 2021 (referred to as the “current” fee schedule in this report), and the ending fund balance in each fee account as of that

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<sup>1</sup> *California Government Code*, sections 66000 through 66025, specifically section 66001(d).

<sup>2</sup> The findings (purpose of the fee, reasonable relationship, alternative funding sources, and alternative funding sources timing) are presented later in this section.

<sup>3</sup> City of Oakland, *Rules and Regulations, City of Oakland Jobs/Housing Impact Fee*, effective July 1, 2005, revised January 25, 2007. The annual fee adjustment is based on the percentage increase or decrease in the residential building cost index from January to January published by Marshall and Swift.

date. These findings are based in part on the analysis presented in Chapter II of this report that updates the analysis in the original 2001 Nexus Study.<sup>4</sup>

In this report “nexus” is synonymous with the “reasonable relationship” term used in the findings presented below.

## **AFFORDABLE HOUSING TRUST FUND**

Revenue from the Jobs/Housing Impact Fee is deposited into the City of Oakland’s Affordable Housing Trust Fund. The Trust Fund also collects funds from the Affordable Housing Impact Fee and the 25 percent allocation of former redevelopment tax increment funds set aside for affordable housing (i.e., “boomerang funds”). Housing and Community Development Department (HCD) staff are exploring the possibility of separating the various Trust Fund components into separate funds in order to facilitate tracking of commitments and spending from the Impact Fees and boomerang funds.

The Affordable Housing Trust Fund is the primary *local* source of on-going funding to increase, improve, and preserve the supply of affordable housing in Oakland. Through the Trust Fund, fee revenue leverages other federal, state, and county funding sources to produce more affordable units. City funds are intended to partially fill the gap between development costs and funding available from other private and public sources; this local funding commitment is often critical to securing additional gap funding for these projects.

Funds from the Affordable Housing Trust Fund are awarded on a competitive basis to project developers responding to a *Notice of Funding Availability (NOFA)* issued by the City of Oakland Housing and Community Development Department. The most recent NOFA for new construction was issued on November 1, 2021, with applications due on January 7, 2022. The most recent NOFA cycle for which funding awards have been approved by City Council was an April 2020 NOFA, with awards made in July 2020.

All the projects responding to the 2020 NOFA relied on multiple sources of subsidy to cover total development costs. The request for City funding ranged from 6% to 34% of total development cost, averaging 13% of costs. Non-city sources of funding included: Federal Community Development Block Grant, Federal Home Loan Bank of San Francisco Affordable Housing Program, and California Housing and Community Development funds from various programs (Multifamily Housing Program, Infill Infrastructure Grant, Affordable Housing and Sustainable Communities, No Place Like Home, Housing for a Health California). All projects also depended on equity investments tied to the Low-Income Housing Tax Credit. A number will also rely on a newly formed California Housing Accelerator Fund, created by the State in 2021 to clear a backlog of projects statewide that have State funding awards, but were unable to compete successfully for tax credits in an unusually competitive State funding environment.

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<sup>4</sup> David Paul Rosen & Associates, *Commercial Development Linkage Fee Analysis, City of Oakland, September 13, 2001*.

## **FINDING: PURPOSE OF FEE**

The local agency shall identify the purpose to which the fee is to be put.

The purpose of the Jobs/Housing Impact Fee is to assure that certain commercial and industrial development projects (as of September 2021, office and warehouse/distribution projects) contribute funding to address the increased demand for affordable housing generated by such development projects within the City of Oakland. The Jobs/Housing Impact Fee is justified to mitigate the fact that the private development market will not produce housing at a price or rent affordable to new low- and moderate-income worker households in Oakland.

Jobs/Housing Impact Fee revenues are deposited in the City of Oakland Affordable Housing Trust Fund. The City uses monies in this trust fund (along with other sources) to provide gap funding on a competitive basis for multifamily affordable housing production and preservation in Oakland.

## **FINDING: REASONABLE RELATIONSHIP**

The local agency shall demonstrate a reasonable relationship between the fee and the purpose for which it is charged.

There is a reasonable relationship between the fee and the purpose for which it is charged because (1) the fee is based on the increased demand for affordable housing in Oakland generated by new nonresidential development in Oakland as documented in *Commercial Development Linkage Fee Analysis, City of Oakland*, September 13, 2001 and in this update, and (2) the fee is restricted to funding affordable housing production and preservation in Oakland.

A reasonable relationship also exists between the fee and the purpose for which it is charged because the City is applying no more than the maximum legal impact fee amount to development projects. Chapter II provides an updated analysis of the maximum legal Jobs/Housing Impact Fee based on 2020 data. As shown in **Table 5** in that chapter, the maximum fee is greater than the current adopted fee across all land uses.

**Table 5** includes the newly identified land use category “self- or mini-storage”. Self- or mini-storage uses were formerly included in the warehouse category and charged the fee for that category. With this update, self- or mini-storage is being identified separately in the fee schedule to recognize the substantially lower level of affordable housing demand per unit of development compared to other land use categories. Self- or mini-storage development projects approved since adoption of the fee have received fee waivers that reduced the warehouse fee to a level that is below the new maximum legal amount shown in Table 5 for the self- or mini-storage category.

## **FINDING: ALTERNATIVE FUNDING SOURCES**

The local agency shall identify all sources and amounts of additional (non-impact fee) funding needed to complete projects to be funded by the Affordable Housing Impact Fee account balance as of the prior fiscal year (June 30, 2021).

The Jobs/Housing Impact Fee account had a fund balance of \$10,123,191 as of June 30, 2021.<sup>5</sup> This amount includes Jobs/Housing Impact Fee revenue received as well as accrued interest and investment earnings. A total of \$6,063,804 of impact fee funds are committed to five multifamily rental projects in various stages of pre-development and construction (see list below). The projects will provide a total of 438 housing units affordable to extremely-low-, very-low-, low-, and moderate-income households; some units are set aside for the formerly homeless or people at risk of becoming homeless.<sup>6</sup>

- ◆ Project Status: Pre-development
  - Phoenix in the Prescott neighborhood of West Oakland
  - Friendship Senior Rental Housing in the Ralph Bunche neighborhood of West Oakland
  - West Grand & Brush Phase I in the Ralph Bunche neighborhood of West Oakland
- ◆ Project Status: Construction
  - Fruitvale Transit Village (Phase IIB) in the Fruitvale neighborhood of East Oakland
  - 95<sup>th</sup> Avenue & International Boulevard in the Elmhurst neighborhood of East Oakland

After accounting for funds committed, \$4,059,387 of the June 30, 2021 fund balance remains uncommitted. The city issued a Notification of Funding Availability for New Construction of Multifamily Affordable Rental Housing in November, 2021. Applications are due January 7, 2022. The city expects to fully commit this remaining fund balance in the project awards anticipated to be forwarded to the City Council for approval in March 2022.<sup>7</sup>

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<sup>5</sup> City of Oakland, *Impact Fee Annual Report for Affordable Housing, Jobs/Housing, Transportation, and Capital Improvements Impact Fees, Fiscal Year Ended June 30, 2021*, December 2021.

<sup>6</sup> Two projects representing a combined total of 101 affordable units are funded by both Jobs/Housing Impact Fee funds and Affordable Housing Impact Fee Funds. These projects are included in the totals presented in this report.

<sup>7</sup> City of Oakland Department of Housing and Community Development, *Notice of Funding Availability for New Construction of Multifamily Affordable Rental Housing*, December 2, 2021 (revised). [https://cao-94612.s3.amazonaws.com/documents/2021-New-Construction-NOFA-Program-Description\\_Revised\\_12.2.21-1.pdf](https://cao-94612.s3.amazonaws.com/documents/2021-New-Construction-NOFA-Program-Description_Revised_12.2.21-1.pdf), accessed December 15, 2021.

The five projects that have committed Jobs/Housing Impact Fee funding, rely on a variety of local, state, federal, and other funding sources as indicated below:

Phoenix	State funds: Homekey and Housing for Healthy Communities
Friendship Senior Rental Housing	City funds: Affordable Housing Impact Fee, HOME (Home Investment Partnerships Program: locally administered federal funds), Other City funds (non-impact fee) State funds: Multifamily Housing Program, No Place Like Home, Low Income Housing Tax Credit Other: a combination of private and other funding sources
West Grand & Brush Phase I	City funds: Affordable Housing Impact Fee, Measure KK Affordable Housing and Infrastructure Bond, Low-Moderate Income Housing Asset Fund County funds: Alameda County Measure A1 Housing Bond State funds: Infill Infrastructure Grant, Multifamily Housing Program, Housing Accelerator Fund Federal funds: Federal Home Loan Bank of San Francisco Affordable Housing Program
Fruitvale Transit Village (Phase IIB)	City funds: Boomerang <sup>8</sup> , Measure KK Affordable Housing and Infrastructure Bond, Low-Moderate Income Housing Asset Fund, Excess Redevelopment Bond funds County funds: Alameda County Measure A1 Housing Bond State funds: Affordable Housing and Sustainable Communities, Transit Oriented Development Housing Program, Low Income Housing Tax Credit Other: a combination of private and other funding sources
95 <sup>th</sup> & International Boulevard	City funds: Affordable Housing Impact Fee, Boomerang <sup>8</sup> , HOME (Home Investment Partnerships Program: locally administered federal funds), Low-Moderate Income Housing Asset Fund, Redevelopment Successor Agency and Economic and Workforce Development (combination of excess bond funds and land contribution) State funds: Low Income Housing Tax Credit Other: a combination of private and other funding sources

<sup>8</sup> Allocation of former redevelopment tax increment funds (25 percent) set aside for affordable housing.

## **FINDING: ALTERNATIVE FUNDING TIMING**

The local agency shall designate the approximate dates on which additional funding identified in the prior finding is anticipated to complete projects.

HCD staff have provided the following approximate dates for the funding sources identified above for each project.

Phoenix	Q4 2022
Friendship Senior Rental Housing	Q4 2022
West Grand & Brush Phase I	Q2 2022
Fruitvale Transit Village (Phase IIB)	Q3 2021
95 <sup>th</sup> & International Boulevard	Q2 2021

## **REPORT ORGANIZATION**

The—Jobs/Housing Nexus Analysis Review and Update begins with description of the complete nexus analysis methodology for the Jobs/Housing Impact Fee. The review expands the range of nonresidential land uses evaluated, presents updated assumptions and analysis, and calculates an updated maximum legal Jobs/Housing Impact Fee.

Two appendices provide detailed tables and text supporting the Affordable Housing Demand Analysis (Appendix A) and the Affordability Gap Analysis (Appendix B).

## II. JOBS/HOUSING NEXUS ANALYSIS REVIEW AND UPDATE

### OVERVIEW OF NEXUS ANALYSIS

The 2001 *Commercial Development Linkage Fee Analysis* and this *Jobs/Housing Impact Fee Review and Update* establish the link between new nonresidential development in Oakland and the need to subsidize housing affordable to low- and moderate-income worker households. The nexus analysis quantifies the number of new workers at various wage levels accommodated by the increase in nonresidential building space in Oakland. Because many lower-wage households cannot reasonably afford to pay for market rate rental or for-sale housing in Oakland, this additional employment increases demand for affordable housing in Oakland.

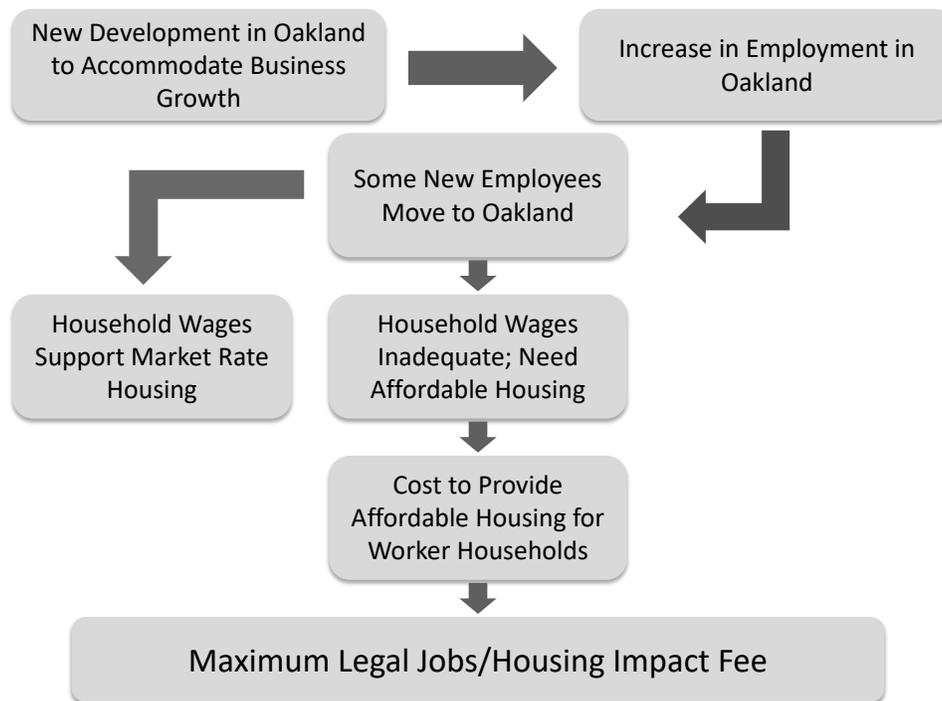
The *City of Oakland Housing Element 2015 - 2023* (December 2014), the *Housing and Community Development 2021 – 2023 Housing Strategic Action Plan* (May 2021), *A Roadmap Towards Equity: Housing Solutions for Oakland California* (2015), and numerous other housing policy and planning documents prepared by and for the City of Oakland document the severity of the need for affordable housing in Oakland. In recent years, market-rate housing prices and rents have been increasing at some of the highest rates in the nation. Vacancy rates are low; there is no excess supply of affordable units to accommodate increased demand.

Because there is no excess supply of affordable housing in Oakland, the Jobs/Housing Impact Fee assessed on new nonresidential development is justified to bridge the difference or “gap” between what the new low- and moderate-income worker households can afford to pay and the costs of developing new housing units for them. This difference is referred to as the “affordability gap.”

**Figure 1** presents a diagram of the nexus connection between new nonresidential development in Oakland, the associated demand for additional affordable housing, and the cost to provide that affordable housing in Oakland.

**Figure 1**

## Maximum Legal Jobs/Housing Impact Fee Nexus Analysis



There are two components of the jobs/housing nexus analysis. The first component—the **Affordable Housing Demand Analysis**—generates estimates of demand for housing affordable to low- and moderate-income worker households in Oakland as a result of new nonresidential development in Oakland. The second component—the **Housing Affordability Gap Analysis**—generates estimates of the difference between what those low- and moderate-income worker households can pay for housing and the cost to produce new housing for these households. The maximum legal Jobs/Housing Impact Fee is based on the affordable housing demand factor for each land use and the affordability gap for producing affordable housing to meet that demand.

## AFFORDABLE HOUSING DEMAND ANALYSIS

The affordable housing demand analysis is conducted in a series of steps. The analysis results in quantified affordable housing demand factors for each nonresidential land use.

- Step 1.** Define *types of new nonresidential development* in Oakland. This nexus analysis evaluates seven nonresidential land uses.
- Step 2.** Apply *employment density factors* to calculate the *number of additional jobs* per 100,000 square feet of building area for each land use.
- Step 3.** Estimate the *share of these Oakland jobs held by people who also live in Oakland*.
- Step 4.** Estimate employment by occupation.
  - ◆ For office, retail/commercial, hotel/motel and institutional land uses estimate *employment by industry* and convert estimates of employment by industry to estimates of *employment by occupation*
  - ◆ For industrial, warehouse/distribution, and self- or mini-storage land uses estimate *employment by occupation*
- Step 5.** To estimates of employment by occupation for each land use, apply wage percentiles by occupation to generate *worker wage percentile distributions* for each land use.
- Step 6.** Estimate *worker household incomes* by number of workers per household and household size for each land use and assign each household income to an *income category* (Extremely Low, Very Low, Low, Moderate, and Above-Moderate Income) based on City of Oakland 2020 Income Limits.
- Step 7.** For each nonresidential land use, allocate employment in Oakland to households (and thereby to household income category) based on the *distribution of workers by household size and number of workers per household* in the City of Oakland.
- Step 8.** *Aggregate workers by household income category* across distribution by household size and number of workers per household.
- Step 9.** Divide the number of workers by household income category by the *average number of workers per worker-household* for the City of Oakland to generate the estimate of *demand for affordable housing* associated with employment growth for each nonresidential land use.

This section sets forth the updated assumptions and analysis for Steps 1 through 9 of the Affordable Housing Demand Analysis. Detailed tables referenced in the discussion below are presented in **Appendix A: Affordable Housing Demand Analysis**.

### Nonresidential land use categories

Nonresidential development does not have a uniform impact on affordable housing demand (**Step 1**). The impacts are a function of the amount of employment associated with a given amount of new building area, and the characteristics of the workers: industry sector, occupation, and wage level. This jobs/housing nexus analysis evaluates seven nonresidential land uses and

derives estimates of affordable housing demand for each. The land uses are the same as those to which Oakland’s Transportation and Capital Facilities Impact Fees apply.<sup>9</sup>

**Table 1** presents the land use categories and typical uses included in each category.

Land Use Category	Typical Types of Uses
Office	Office uses including medical and government office
Retail/Commercial	Retail, eating and drinking, and service commercial uses
Hotel/Motel	Visitor lodging uses
Institutional	Educational services/schools, hospitals and health care facilities, recreation and entertainment facilities, other civic administrative and essential services activities, social services and residential care facilities, and churches
Industrial	Industrial uses including manufacturing, research and development, construction, transportation/goods movement, waste management, and other industrial activities except warehouse, storage, and distribution
Warehouse/Distribution	Warehouse, storage, and distribution uses
Self- or Mini-Storage	Storage facilities offering units for rent to the general public

Sources: City of Oakland and Hausrath Economics Group

### **Employment density factors and estimates of employment by land use**

For ease of presentation, this jobs/housing nexus analysis (like the 2001 *Commercial Development Linkage Fee Analysis*) uses a building module of 100,000 square feet of gross building area to calculate the affordable housing demand factors for each nonresidential land use. The amount of employment associated with each land use varies because employment density varies across land uses. Employment density is an average measure of the number of workers accommodated in a given amount of building space—a key determinant of the magnitude of affordable housing demand associated with new development. **Table 2** presents the employment density factors for each nonresidential land use and the resultant estimate of employment per 100,000 square feet of gross building area (**Step 2**).<sup>10</sup>

This nexus analysis assumes that new building development in Oakland results in net additional employment in Oakland even if the new workers are not physically located in the new building.

<sup>9</sup> This is a broader range of land uses than covered in the 2001 *Commercial Development Linkage Fee Analysis*. That analysis evaluated affordable housing demand for office, warehouse/distribution, retail, and hotel uses.

<sup>10</sup> The employment density factors used in this analysis are consistent with those used in the *Oakland Transportation and Capital Improvements Impact Fee Five-Year Report*. They are based on the same underlying land use and economic analysis.

If existing businesses and their workers that are already located in the city move to the new building, their vacated space becomes available and at some point, new businesses and workers fill the increase in building inventory.

**Table 2**  
**Employment Density Factors and Employment per 100,000 Square Feet of Gross Building Area**

Land Use Category	Employment Density (gross square feet of building area per worker)	Employment in 100,000 Square Feet of Gross Building Area /a/
Office /b/	330	303
Retail/Commercial	386	259
Hotel/Motel	900	111
Institutional /c/	655	153
Industrial	1,235	81
Warehouse/Distribution	1,800	56
Self- or Mini-Storage	20,000	5

/a/ Rounded to nearest whole number.

/b/ Office land use for the Jobs/Housing Impact Fee includes local government office. The employment density factor is the weighted average of the local government office density and all other office density factors.

/c/ Institutional land use for the Jobs/Housing Impact Fee includes local government institutional uses. The employment density factor is the weighted average over all institutional uses including local government.

Source: Hausrath Economics Group

### **Share of people working in Oakland who also live in Oakland**

Only some of the people working in the city of Oakland also live in the city. According to the U.S. Census Bureau, 24 percent of the people working in Oakland live in Oakland<sup>11</sup>. **Step 3** allocates 24 percent of the employment to the City of Oakland.

### **Occupations by industry**

The occupational characteristics of workers determine wage and salary levels. This nexus analysis uses two sources in **Step 4** to generate estimates of the distribution of workers by occupation.

For office, retail/commercial, hotel/motel, and institutional land uses, **Step 4** first allocates workers to industry sector using analysis conducted by Hausrath Economics Group in 2015 for

<sup>11</sup> U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics, 2018 for the City of Oakland, California. The percentage of people working in Oakland who also live in Oakland is lower than estimated for the 2001 *Commercial Development Linkage Fee Nexus Analysis*. That analysis was based on 1990 Census data (now 30 years old) and on ABAG projections. A number of regional economic and market factors combine to explain most of the shift: the slow pace of housing supply increases compared to job growth determines the regional distribution of jobs and labor and the resultant housing market conditions that workers face when looking for housing near their place of work.

the Transportation and Capital Facilities Impact Fees Nexus Study (**Appendix Table A-1**). The second part of Step 4 applies a matrix of occupations by industry to the industry employment estimates for office, retail/commercial, hotel/motel, and institutional land uses. **Appendix Table A-2** shows the resulting distribution of employment by occupation.

For industrial, warehouse/distribution, and self- or mini-storage uses, this nexus analysis takes advantage of recent in-depth analysis of Oakland's industrial land uses and business activities conducted for the City's Economic and Workforce Development Department. The **Step 4** estimates of employment by occupation for industrial, warehouse/distribution, and self- or mini-storage land uses in **Appendix Table A-2** are based on industry and occupation analysis completed by Hausrath Economics Group in 2020.

### **Wages by occupation**

The Occupational Employment and Wage Statistics program (a partnership between the State of California Employment Development Department and the U.S. Bureau of Labor Statistics) provides estimates of wages by occupation. Wages are presented as mean annual wages and in annual wage percentiles (25<sup>th</sup>, 50<sup>th</sup>, and 75<sup>th</sup> percentiles) for each occupation. **Step 5** applies a matrix of wage percentiles by occupation (**Appendix Table A-3**) to the estimates of employment by occupation for each nonresidential land use. The result is an estimate of worker wage percentile allocations for each nonresidential land use (**Appendix Table A-4**).

### **Worker household incomes and income categories**

Using the worker wage percentiles and a matrix referencing both household size and the number of workers per household, **Step 6** generates estimates of worker household incomes by number of workers per household and household size for each nonresidential land use. The analysis assumes each worker in a multiple worker household has the same annual wage (**Appendix Tables A-5 through A-10**). For each nonresidential land use, each household income in the cells in Appendix Tables A-5 through A-10 is assigned to a household income category (Extremely Low, Very Low, Low, Moderate, and Above-Moderate Income) as defined by 2020 State Income Limits by household size (**Appendix Table A-11**).

### **Workers by household size and number of workers per household**

An estimate of the number of workers by household size and number of workers per household is derived from U.S. Census estimates of the number of Oakland households by household size and number of workers per household. (**Appendix Table A-12**). Note that the analysis eliminates households that have no workers. **Step 7** allocates employment in Oakland for each nonresidential land use by household size and number of workers based on this citywide allocation. Because each cell in the resulting matrix by household size and number of workers per household is associated with a household income and an income category (Step 6), the result of Step 7 is a matrix for each nonresidential land use of the number of workers in household income categories as defined by 2020 State Income Limits.

### **Workers by household income categories**

**Step 8** starts with a matrix of workers by household size and number of workers per household for each nonresidential land use. Each cell in that matrix has been assigned to an income category based on 2020 Income Limits (Step 7). **Step 8** aggregates the number of workers in each income category by adding all the cells distributed by household size and number of workers per household assigned to each income category for each land use. The result is an overall estimate of the number of workers by household income category (Extremely Low, Very Low, Low, Moderate, and Above-Moderate Income).

### **Workers per worker-household**

The final step converts workers to worker households. **Step 9** divides the number of workers by household income category by the average number of workers per worker-household for the City of Oakland (1.67) to generate the estimate of demand for affordable housing associated with employment growth for each nonresidential land use. The average number of workers per worker-household is greater than the overall average number of workers per household because it excludes households without workers. See **Appendix Table A-13** for the estimate of workers per worker-household.

**Table 3** summarizes the Affordable Housing Demand results for each nonresidential land use. The number of workers and worker households associated with increases to the inventory of nonresidential land uses in Oakland is a function of the employment density (building square feet per worker) for each land use and the industry, occupation, and wage profile of the workers in each land use. The last two rows of the table show that affordable housing demand per 100,000 square feet of building area ranges from .53 for the self- or mini-storage land use up to 26.02 for the retail/commercial land use. Retail/commercial, hotel/motel, warehouse/distribution, and self- or mini-storage uses generate demand in the extremely low-income category. Large shares of worker households in these uses fall into the income categories generating demand for affordable housing. Office land use shows the lowest percentage of total worker households generating demand for affordable housing.

**Table 3**  
**Affordable Housing Demand Associated with New Nonresidential Development in Oakland:**  
**Number of Workers and Worker Households by Income Category**

**Number of Workers Living in Oakland by Income Category per 100,000 Square Feet of Gross Building Area**

<b>Income Category</b>	<b>Office</b>	<b>Retail / Commercial</b>	<b>Hotel / Motel</b>	<b>Institutional</b>	<b>Industrial</b>	<b>Warehouse / Distribution</b>	<b>Self- or Mini-Storage</b>
Extremely Low Income	-	0.69	1.39	-	-	0.15	0.01
Very Low Income	2.95	7.96	5.76	3.26	1.86	1.67	0.15
Low Income	12.14	19.42	11.94	6.07	4.77	4.40	0.40
Moderate Income	17.97	15.42	7.18	10.03	4.68	3.56	0.32
Above Moderate Income /a/	39.95	18.51	0.72	17.64	7.69	3.22	0.29
<b>Total</b>	<b>73.00</b>	<b>62.00</b>	<b>27.00</b>	<b>37.00</b>	<b>19.00</b>	<b>13.00</b>	<b>1.17</b>

**Number of Worker Households in Oakland by Income Category per 100,000 Square Feet of Gross Building Area /b/**

<b>Income Category</b>	<b>Office</b>	<b>Retail / Commercial</b>	<b>Hotel / Motel</b>	<b>Institutional</b>	<b>Industrial</b>	<b>Warehouse / Distribution</b>	<b>Self- or Mini-Storage</b>
Extremely Low Income	-	0.42	0.83	-	-	0.09	0.01
Very Low Income	1.76	4.76	3.45	1.95	1.12	1.00	0.09
Low Income	7.26	11.62	7.15	3.63	2.86	2.63	0.24
Moderate Income	10.75	9.23	4.30	6.00	2.80	2.13	0.19
Above Moderate Income /a/	23.90	11.08	0.43	10.56	4.60	1.93	0.17
<b>Total</b>	<b>43.68</b>	<b>37.10</b>	<b>16.16</b>	<b>22.14</b>	<b>11.37</b>	<b>7.78</b>	<b>0.70</b>
<b>Low- and Moderate-Income Households</b>	<b>19.78</b>	<b>26.02</b>	<b>15.73</b>	<b>11.58</b>	<b>6.77</b>	<b>5.85</b>	<b>0.53</b>
<b>Percent of Total Households</b>	<b>45%</b>	<b>70%</b>	<b>97%</b>	<b>52%</b>	<b>60%</b>	<b>75%</b>	<b>75%</b>

Note: Detail may not add to total due to independent rounding.

/a/ 120% of area median income and above. Not counted in the affordable housing demand factor.

/b/ Derived by dividing the number of workers in each household income category by the average number of workers per worker-household for the City of Oakland (1.67). See Appendix Table A-13.

Source: Hausrath Economics Group based on Tables A-1 – A.13

## AFFORDABILITY GAP ANALYSIS

The housing affordability gap is defined as the difference between the development cost supported by what extremely low-, very low-, low-, and moderate-income households can afford to pay for housing and the total cost to produce new housing units for those households. This updated analysis assumes all affordable housing is provided as rental housing consistent with current practice. This assumption does not preclude the City from using impact fee revenue for ownership as well as rental housing. Calculating the housing affordability gap requires the following three steps:

- Step 1.** Estimate affordable rents for households in targeted income groups.
- Step 2.** Estimate development costs of building new housing units for targeted to low- and moderate-income households, based on current costs.
- Step 3.** Calculate the difference between the development cost supported by what low- and moderate-income households can afford to pay for housing and the total cost to develop affordable rental units.

**Appendix B** presents the detailed assumptions and calculations for this review and update of the housing affordability gap. **Table 4** summarizes the affordability gap conclusions by household income category.

**Table 4**  
**Weighted Average Affordability Gap per Affordable Unit Built**  
**by Income Category**

<b>Income Category</b>	
Extremely Low-Income	\$695,430
Very Low-Income	\$654,043
Low-Income	\$616,868
Moderate-Income	\$431,081

Note: The affordability gap represents the difference between what it costs to build affordable housing in Oakland and the development cost supported by what low- and moderate-income households can afford to pay for housing. Housing costs are based on the cost to produce mid-rise multifamily rental housing in Oakland.

The affordability gap amounts are the weighted average across unit sizes (studios up to three-bedroom units). The weighted averages take into account the household size distribution for worker households in Oakland.

Source: Hausrath Economics Group, Table B-4.

## MAXIMUM LEGAL JOBS/HOUSING IMPACT FEE

**Table 5** combines the results of the affordable housing demand analysis and the housing affordability gap analysis to derive the maximum legal Jobs/Housing Impact Fee. The fee per building square foot is calculated for each nonresidential land use.

To recognize the lower affordable housing demand associated with self- or mini-storage land use, **Table 5** includes a new land use category, self- or mini-storage, not shown separately in the City's existing fee schedule.

**Table 5** also compares the maximum fee to the City's current fee schedule, showing that the City is charging less than the maximum in all land use categories except the newly added self- or mini-storage category. The City has granted mini-storage projects approved since adoption of the fee program fee waivers and charged fees lower than the maximum legal fee shown in the table for self- or mini-storage. The City should revise the current adopted fee schedule to reflect the lower maximum legal fee for self- or mini-storage land use.

The calculations are as follows:

- 1) Dividing the affordable housing demand factor by income category for each 100,000 square feet of nonresidential building area (from **Table 1**) by 100 results in a demand factor per 1,000 square feet for each income category.<sup>12</sup>
- 2) Multiplying the weighted average affordability gap by income category (from **Table 2**) by these affordable housing demand factors per 1,000 building square feet results in the affordable housing gap cost per 1,000 square feet by income category.
- 3) Adding the affordable housing gap costs per 1,000 building square feet across income categories results in the total affordable housing gap cost per 1,000 square feet for each nonresidential land use.
- 4) Dividing the total affordable housing gap cost per 1,000 square feet by 1,000 results in the total affordable housing gap cost per square foot (the amount needed to bridge the gap between the costs of developing new affordable housing and what new lower- and moderate-income worker households can afford to pay)—equivalent to the **maximum legal jobs/housing impact fee per square foot** justified by the nexus analysis.

Based on this five-year review and consideration of other data and information, the City Council can adopt a Jobs/Housing Impact Fee at or below the maximum legal fee amounts identified.

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<sup>12</sup> Expressing the demand factors in units of 1,000 square feet of building area results in a reasonable number of decimal places for presentation purposes in this part of the analysis.

**Table 5**  
**Maximum Legal Jobs/Housing Impact Fee**

	<b>Office</b>	<b>Retail / Commercial</b>	<b>Hotel / Motel</b>	<b>Institutional</b>	<b>Industrial</b>	<b>Warehouse / Distribution</b>	<b>Self- or Mini- Storage</b>
<b>Affordable Housing Demand and Affordable Housing Gap Cost per 1,000 Square Feet of Building Area by Income Category</b>							
<b>Extremely Low Income</b>							
Demand Factor per 1,000 Sq. Ft. of Building Area	-	0.0042	0.0083	-	-	0.0009	0.0001
Affordable Housing Gap Cost /a/	-	\$2,890	\$5,793	-	-	\$606	\$55
<b>Very Low Income</b>							
Demand Factor per 1,000 Sq. Ft. of Building Area	0.0176	0.0476	0.0345	0.0195	0.0112	0.0100	0.0009
Affordable Housing Gap Cost /a/	\$11,529	\$31,157	\$22,548	\$12,750	\$7,296	\$6,533	\$588
<b>Low Income</b>							
Demand Factor per 1,000 Sq. Ft. of Building Area	0.0726	0.1162	0.0715	0.0363	0.0286	0.0263	0.0024
Affordable Housing Gap Cost /a/	\$44,804	\$71,677	\$44,091	\$22,419	\$17,615	\$16,249	\$1,462
<b>Moderate Income</b>							
Demand Factor per 1,000 Sq. Ft. of Building Area	0.1075	0.0923	0.0430	0.0600	0.0280	0.0213	0.0019
Affordable Housing Gap Cost /a/	\$46,356	\$39,768	\$18,532	\$25,865	\$12,064	\$9,191	\$827
<b>Total Affordable Housing Gap Cost per 1,000 Square Feet of Building Area /b/</b>							
	<b>\$102,689</b>	<b>\$145,492</b>	<b>\$90,964</b>	<b>\$61,034</b>	<b>\$36,975</b>	<b>\$32,579</b>	<b>\$2,932</b>
<b>Maximum Legal Jobs/Housing Impact Fee per Square Foot of Building Area /c/</b>							
	<b>\$102.69</b>	<b>\$145.49</b>	<b>\$90.96</b>	<b>\$61.03</b>	<b>\$36.98</b>	<b>\$32.58</b>	<b>\$2.93</b>
<b>Current Impact Fee /d/</b>	<b>\$5.90</b>	<b>na</b>	<b>na</b>	<b>na</b>	<b>na</b>	<b>\$5.90</b>	<b>\$5.90 /e/</b>

/a/ Demand factor per 1,000 square feet of building area multiplied by affordability gap cost by income category (Table 4).

/b/ The sum of the affordability gap costs by income category per 1,000 square feet of building area for each nonresidential land use.

/c/ Affordable housing gap cost per 1,000 square feet of building area divided by 1,000.

/d/ Fee schedule in effect of June 30, 2021. In this fee schedule, Oakland assesses the Jobs/Housing Impact Fee on office and warehouse/distribution development only, and self- or mini-storage development is considered as part of warehouse/distribution land use. Mini-storage projects have received fee waivers reducing the actual fee charged below the legal maximum.

/e/ The maximum legal fee for the new self- or mini-storage category is less than the current adopted warehouse fee that would apply to these projects without a fee waiver. The City should adopt a new fee for the self- or mini-storage category that is no higher than the maximum legal fee shown here.

Source: Table 3 and Table 4.

## POTENTIAL FOR OVERLAP BETWEEN JOBS/HOUSING IMPACT FEE AND AFFORDABLE HOUSING IMPACT FEE

Both the Jobs/Housing Impact Fee and the Affordable Housing Impact Fee are designed to mitigate the impacts of new development on the need for affordable housing for low- and moderate-income worker households in Oakland. The Jobs/Housing Impact Fee presented in this report mitigates the impacts of all types of new *nonresidential* development—impacts attributable to the increase in employment for workers at low- and moderate-income wage levels that are not sufficient to afford market-rate housing in Oakland. The Affordable Housing Impact Fee mitigates the impacts of new *residential* development—impacts attributable to the spending of new households and the new jobs in Oakland supported by that spending. The low- and moderate-income workers in Oakland supported by this household consumer spending are primarily retail and service industry workers, located in retail and other commercial or office space.

The two fees could overlap, i.e., mitigate the same impact, if each fee were assessed to address the affordable housing needs of the same workers. This is not a likely outcome because most of the affordable housing needs addressed by the Jobs/Housing Impact Fee are not part of the Affordable Housing Impact Fee Nexus. The Affordable Housing Impact Fee Nexus targets local-serving sectors and workers while most of the office, retail/commercial, hotel, institutional, industrial, and warehouse/distribution land uses that are included in the Jobs/Housing Impact Fee Nexus analysis rely on a broader base of economic support than local household consumer spending.

Some of the land uses included in the Jobs/Housing Impact Fee Nexus Analysis could theoretically be supported by the consumer spending demand attributable to new market-rate residential development in Oakland. Examples include retail development, ground floor commercial space for personal services, and office space for medical services or local financial services. Full overlap would occur only if *all* the new retail, commercial, or office space were supported by demand from residents in new residential units.

The potential for overlap can be limited by:

- ◆ Establishing a threshold such as 25,000 square feet below which the Jobs/Housing Impact Fee would not apply. This is currently the case for the Jobs/Housing Impact Fee applicable to office and warehouse/distribution uses.
- ◆ Setting each fee amount such that the combined fees do not exceed the maximums established in the nexus analyses.

## APPENDIX A: AFFORDABLE HOUSING DEMAND ANALYSIS

This appendix presents the detailed tables supporting the analytical steps for the affordable housing demand analysis presented in the text.

**Table A-1**  
**Oakland Employment by Industry, Selected Nonresidential Land Uses (per 100,000 square feet of gross building area) /a/**

Industry (NAICS) /b/	Office	Retail / Commercial	Hotel / Motel	Institutional
Agriculture, Forestry, & Fishing	0.0149	0.0000	0.0000	0.0000
Mining and Quarrying	0.0000	0.0000	0.0000	0.0000
Utilities	1.7917	0.0130	0.0000	0.0000
Construction	1.6573	0.0872	0.0000	0.7721
Manufacturing	0.9021	0.0556	0.0000	0.0000
Wholesale Trade	2.5593	0.0371	0.0000	0.0000
Retail Trade	0.0432	21.5898	0.0000	0.0000
Transportation and Warehousing	2.4398	0.0278	0.0000	1.5561
Information	2.3718	0.0037	0.0000	0.0000
Finance and Insurance	2.6324	3.5040	0.0000	0.0000
Real Estate and Rental & Leasing	1.3502	1.7158	0.0000	0.0000
Professional, Scientific, & Technical Services	12.5851	0.2115	0.0000	0.0000
Management of Companies	7.1776	0.0909	0.0000	0.0000
Administration and Support/Waste Management	7.1668	0.8904	0.0000	0.4256
Educational Services	2.7809	0.1113	0.0000	16.2224
Health Care and Social Assistance	11.7925	1.3115	0.0000	11.8514
Arts, Entertainment, and Recreation	0.1245	2.5840	0.0000	2.3999
Accommodation and Food Services	0.0000	19.8740	27.0000	0.3119
Other Services	4.0705	9.8925	0.0000	1.7290
Public Administration	11.5394	0.0000	0.0000	1.7316
<b>Total</b>	<b>73.0000</b>	<b>62.0000</b>	<b>27.0000</b>	<b>37.0000</b>

Note: This nexus analysis uses results of a recent study of industrial land uses and business activities in the City of Oakland for the estimates of employment by occupation for industrial, warehouse/distribution, and self- or mini-storage land uses (see Table A-2). That March 2020 analysis prepared by Hausrath Economics Group for the City of Oakland includes a more in-depth analysis of the industrial sector than that represented in the 2015 estimates. Consequently, the 2015 information is not shown in this table.

/a/ See Table A.3 Oakland Employment and Space by Land Use and Industry in Appendix A: 2015 Baseline Conditions for Households, Population, Employment, and Land Use in *Oakland Transportation and Capital Improvements Impact Fee Nexus Analysis*, prepared for the City of Oakland by Urban Economics, March 10, 2016.

/b/ North American Industry Classification System.

Source: Hausrath Economics Group, 2015.

**Table A-2**  
**Oakland Employment by Occupation for All Nonresidential Land Uses (per 100,000 square feet of gross building area)**

SOC Code /a/	Occupational Title	Office	Retail / Commercial	Hotel / Motel	Institutional	Industrial	Warehouse / Distribution	Self- or Mini-Storage
11-0000	Management Occupations	6.6394	2.8185	0.8287	1.7107	0.9474	0.3230	0.0248
13-0000	Business and Financial Operations Occupations	8.0135	2.6103	0.1179	1.4085	0.5972	0.2691	0.0207
15-0000	Computer and Mathematical Occupations	4.8226	0.5384	0.0092	0.4451	0.2493	0.0655	0.0050
17-0000	Architecture and Engineering Occupations	2.3515	0.0688	0.0000	0.0976	0.3231	0.0260	0.0020
19-0000	Life, Physical, and Social Science Occupations	1.4207	0.0876	0.0000	0.3959	0.0322	0.0000	0.0000
21-0000	Community and Social Services Occupations	2.0001	0.4755	0.0000	1.4728	0.0007	0.0000	0.0000
23-0000	Legal Occupations	1.3421	0.0891	0.0000	0.0642	0.0044	0.0000	0.0000
25-0000	Education, Training, and Library Occupations	2.5090	0.5024	0.0175	10.5235	0.0001	0.0000	0.0000
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	1.4884	0.7167	0.0220	0.6307	0.0942	0.0000	0.0000
29-0000	Healthcare Practitioners and Technical Occupations	4.2238	1.0684	0.0124	3.5565	0.0247	0.0081	0.0006
31-0000	Healthcare Support Occupations	4.5403	0.8078	0.0303	4.2272	0.0004	0.0000	0.0000
33-0000	Protective Service Occupations	3.1570	0.5643	0.1387	0.7838	0.0223	0.0000	0.0000
35-0000	Food Preparation and Serving-Related Occupations	0.6065	17.3945	21.9356	1.2129	0.0313	0.0188	0.0014
37-0000	Building and Grounds Cleaning and Maintenance Occupations	2.3019	1.5714	1.1096	1.0344	0.1118	0.0825	0.0063
39-0000	Personal Care and Service Occupations	1.4372	2.8033	0.2589	1.7492	0.0220	0.0000	0.0000
41-0000	Sales and Related Occupations	3.2669	13.9618	0.8106	0.3926	0.9331	0.1373	0.0106
43-0000	Office and Administrative Support Occupations	11.3516	5.4525	0.7809	4.0662	3.8025	2.8842	0.2219
45-0000	Farming, Fishing, and Forestry Occupations	0.1124	0.0486	0.0000	0.0180	0.0627	0.0000	0.0000
47-0000	Construction and Extraction Occupations	1.9015	0.1834	0.0088	0.6215	2.2223	0.0045	0.0003
49-0000	Installation, Maintenance, and Repair Occupations	2.5870	2.9733	0.2432	0.7122	0.7536	0.3490	0.0268
51-0000	Production Occupations	1.9482	1.6207	0.1851	0.2475	1.8653	0.3409	0.0262
53-0000	Transportation and Material Moving Occupations	4.9784	5.6428	0.4906	1.6290	6.8993	8.4911	0.6532
<b>Total all occupations</b>		<b>73.0000</b>	<b>62.0000</b>	<b>27.0000</b>	<b>37.0000</b>	<b>19.0000</b>	<b>13.0000</b>	<b>1.0000</b>

/a/ U.S. Bureau of Labor Statistics, Standard Occupational Classification

Sources: Hausrath Economics Group; Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment and Wage Statistics Survey, May 2020 OEWS Research Estimates, California for office, retail/commercial, hotel/motel, and institutional land uses; and for industrial, warehouse/distribution, and self- or mini-storage land uses, Memorandum from Micah Hinkle, Deputy Director, Economic and Workforce Development Department, "Industrial Land Use Study – Current Conditions", October 4, 2021 and Attachment A: *Current Conditions Report: Industrial Land Uses and Business Activities in Oakland*, Hausrath Economics Group, July 2019 (as finalized October 2020).

<b>SOC Code /a/</b>	<b>Occupational Title</b>	<b>2020 Mean Annual Wage</b>	<b>25th Percentile Annual Wage</b>	<b>50th Percentile (Median) Annual Wage</b>	<b>75th Percentile Annual Wage</b>
11-0000	Management Occupations	\$149,990	\$89,066	\$137,613	\$191,173
13-0000	Business and Financial Operations Occupations	\$92,190	\$62,442	\$83,782	\$112,674
15-0000	Computer and Mathematical Occupations	\$117,687	\$83,470	\$115,378	\$149,302
17-0000	Architecture and Engineering Occupations	\$106,030	\$72,758	\$101,275	\$131,685
19-0000	Life, Physical, and Social Science Occupations	\$98,582	\$67,350	\$94,557	\$125,112
21-0000	Community and Social Service Occupations	\$64,438	\$44,470	\$57,117	\$80,517
23-0000	Legal Occupations	\$136,591	\$69,410	\$108,347	\$184,870
25-0000	Educational Instruction and Library Occupations	\$68,673	\$39,728	\$57,678	\$88,962
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	\$67,681	\$35,110	\$56,909	\$85,758
29-0000	Healthcare Practitioners and Technical Occupations	\$114,681	\$69,202	\$106,912	\$151,445
31-0000	Healthcare Support Occupations	\$37,752	\$28,454	\$32,011	\$42,994
33-0000	Protective Service Occupations	\$68,632	\$35,214	\$51,771	\$99,362
35-0000	Food Preparation and Serving Related Occupations	\$35,310	\$27,893	\$30,971	\$37,586
37-0000	Building and Grounds Cleaning and Maintenance Occupations	\$45,796	\$33,571	\$41,933	\$55,910
39-0000	Personal Care and Service Occupations	\$39,445	\$28,413	\$32,843	\$42,931
41-0000	Sales and Related Occupations	\$52,883	\$30,035	\$37,731	\$58,864
43-0000	Office and Administrative Support Occupations	\$52,467	\$37,690	\$49,462	\$63,461
45-0000	Farming, Fishing, and Forestry Occupations	\$39,327	\$29,702	\$35,131	\$46,613
47-0000	Construction and Extraction Occupations	\$77,160	\$53,227	\$71,053	\$98,134
49-0000	Installation, Maintenance, and Repair Occupations	\$63,957	\$42,869	\$59,488	\$80,038
51-0000	Production Occupations	\$49,781	\$34,050	\$43,805	\$58,302
53-0000	Transportation and Material Moving Occupations	\$46,078	\$31,699	\$39,707	\$53,352
<b>00-0000</b>	<b>Total all occupations</b>	<b>\$70,488</b>	<b>\$34,653</b>	<b>\$53,144</b>	<b>\$88,358</b>

/a/ U.S. Bureau of Labor Statistics, Standard Occupational Classification.

Source: State of California, Employment Development Department, Occupational Employment and Wage Statistics, 2020, for the Oakland-Hayward-Berkeley Metropolitan Division (Alameda and Contra Costa counties).

**Table A-4  
Worker Wages by Nonresidential Land Use**

<b>Nonresidential Land Use</b>	<b>Mean Annual Wage</b>	<b>25th Percentile Annual Wage</b>	<b>50th Percentile (Median) Annual Wage</b>	<b>75th Percentile Annual Wage</b>
Office	\$78,686	\$51,073	\$71,049	\$98,523
Retail/Commercial	\$55,295	\$36,682	\$47,413	\$65,008
Hotel/Motel	\$41,426	\$30,852	\$36,408	\$46,136
Institutional	\$69,010	\$43,863	\$61,059	\$86,849
Industrial	\$61,273	\$41,346	\$54,995	\$74,206
Warehouse/Distribution	\$52,197	\$35,814	\$46,392	\$61,861
Self- or Mini-Storage	\$52,197	\$35,814	\$46,392	\$61,861

Source: Hausrath Economics Group based on Tables A.2 and Table A.3.

**Table A-5  
Household Income by Number of Workers per Household and Household Size  
Office Land Use**

	Mean Annual Wage	25th Percentile Annual Wage	50th Percentile (Median) Annual Wage	75th Percentile Annual Wage
<b>Worker Wages /a/</b>	\$78,686	\$51,073	\$71,049	\$98,523

**Household Income by Number of Workers per Household and Household Size:**

Workers per Household	1-person	2-person	3-person	4 or more-person
<b>1 worker</b>				
25th percentile	\$51,073	\$51,073	\$51,073	\$51,073
50th percentile	\$71,049	\$71,049	\$71,049	\$71,049
75th percentile	\$98,523	\$98,523	\$98,523	\$98,523
> 75th percentile /b/	\$98,524	\$98,524	\$98,524	\$98,524
<b>2 workers /c/</b>				
25th percentile		\$102,146	\$102,146	\$102,146
50th percentile		\$142,098	\$142,098	\$142,098
75th percentile		\$197,046	\$197,046	\$197,046
> 75th percentile /b/		\$197,047	\$197,047	\$197,047
<b>3 or more workers /d/</b>				
25th percentile			\$153,219	\$153,219
50th percentile			\$213,147	\$213,147
75th percentile			\$295,569	\$295,569
> 75th percentile /b/			\$295,570	\$295,570

Note: Household income by number of workers per household calculated based on corresponding percentile annual wage for this land use and the assumption that all workers in multiple worker households have the same annual wage.

Households in the 25<sup>th</sup> percentile category have household incomes up to the amount indicated in the corresponding cell by household size. Households in the 50<sup>th</sup> percentile category have household incomes greater than the 25<sup>th</sup> percentile amount up to the 50<sup>th</sup> percentile amount. Households in the 75<sup>th</sup> percentile category have household incomes greater than the 50<sup>th</sup> percentile amount up to the 75<sup>th</sup> percentile amount. Households in the greater than 75<sup>th</sup> percentile category have household incomes at or above the amount indicated in the corresponding cell by household size.

/a/ From Table A-4.

/b/ The greater than 75<sup>th</sup> percentile is represented by an annual wage / household income just above the 75<sup>th</sup> percentile annual wage / household income.

/c/ Worker wages multiplied by two workers per household.

/d/ Worker wages multiplied by three workers per household.

Source: Hausrath Economics Group based on Table A-4, Table A-11, and Table A-12.

**Table A-6**  
**Household Income by Number of Workers Per Household and Household Size**  
**Retail/Commercial Land Use**

	Mean Annual Wage	25th Percentile Annual Wage	50th Percentile (Median) Annual Wage	75th Percentile Annual Wage
Worker Wages /a/	\$55,295	\$36,682	\$47,413	\$65,008

**Household Income by Number of Workers per Household and Household Size:**

Workers per Household	1-person	2-person	3-person	4 or more-person
1 worker				
25th percentile	\$36,682	\$36,682	\$36,682	\$36,682
50th percentile	\$47,413	\$47,413	\$47,413	\$47,413
75th percentile	\$65,008	\$65,008	\$65,008	\$65,008
> 75th percentile /b/	\$65,009	\$65,009	\$65,009	\$65,009
2 workers /c/				
25th percentile		\$73,364	\$73,364	\$73,364
50th percentile		\$94,826	\$94,826	\$94,826
75th percentile		\$130,016	\$130,016	\$130,016
> 75th percentile /b/		\$130,017	\$130,017	\$130,017
3 or more workers /d/				
25th percentile			\$110,046	\$110,046
50th percentile			\$142,239	\$142,239
75th percentile			\$195,024	\$195,024
> 75th percentile /b/			\$195,025	\$195,025

Note: Household income by number of workers per household calculated based on corresponding percentile annual wage for this land use and the assumption that all workers in multiple worker households have the same annual wage.

Households in the 25<sup>th</sup> percentile category have household incomes up to the amount indicated in the corresponding cell by household size. Households in the 50<sup>th</sup> percentile category have household incomes greater than the 25<sup>th</sup> percentile amount up to the 50<sup>th</sup> percentile amount. Households in the 75<sup>th</sup> percentile category have household incomes greater than the 50<sup>th</sup> percentile amount up to the 75<sup>th</sup> percentile amount. Households in the greater than 75<sup>th</sup> percentile category have household incomes at or above the amount indicated in the corresponding cell by household size.

/a/ From Table A-4.

/b/ The greater than 75<sup>th</sup> percentile is represented by an annual wage / household income just above the 75<sup>th</sup> percentile annual wage / household income.

/c/ Worker wages multiplied by two workers per household.

/d/ Worker wages multiplied by three workers per household.

Source: Hausrath Economics Group based on Table A-4, Table A-11, and Table A-12.

**Table A-7**  
**Household Income by Number of Workers per Household and Household Size**  
**Hotel/Motel Land Use**

	Mean Annual Wage	25th Percentile Annual Wage	50th Percentile (Median) Annual Wage	75th Percentile Annual Wage
<b>Worker Wages /a/</b>	\$41,426	\$30,852	\$36,408	\$46,136

**Household Income by Number of Workers per Household and Household Size:**

<b>Workers per Household</b>	<b>1-person</b>	<b>2-person</b>	<b>3-person</b>	<b>4 or more-person</b>
1 worker				
25th percentile	\$30,852	\$30,852	\$30,852	\$30,852
50th percentile	\$36,408	\$36,408	\$36,408	\$36,408
75th percentile	\$46,136	\$46,136	\$46,136	\$46,136
> 75th percentile /b/	\$46,137	\$46,137	\$46,137	\$46,137
2 workers /c/				
25th percentile		\$61,704	\$61,704	\$61,704
50th percentile		\$72,816	\$72,816	\$72,816
75th percentile		\$92,272	\$92,272	\$92,272
> 75th percentile /b/		\$92,273	\$92,273	\$92,273
3 or more workers /d/				
25th percentile			\$92,556	\$92,556
50th percentile			\$109,224	\$109,224
75th percentile			\$138,408	\$138,408
> 75th percentile /b/			\$138,409	\$138,409

Note: Household income by number of workers per household calculated based on corresponding percentile annual wage for this land use and the assumption that all workers in multiple worker households have the same annual wage.

Households in the 25<sup>th</sup> percentile category have household incomes up to the amount indicated in the corresponding cell by household size. Households in the 50<sup>th</sup> percentile category have household incomes greater than the 25<sup>th</sup> percentile amount up to the 50<sup>th</sup> percentile amount. Households in the 75<sup>th</sup> percentile category have household incomes greater than the 50<sup>th</sup> percentile amount up to the 75<sup>th</sup> percentile amount. Households in the greater than 75<sup>th</sup> percentile category have household incomes at or above the amount indicated in the corresponding cell by household size.

/a/ From Table A-4.

/b/ The greater than 75<sup>th</sup> percentile is represented by an annual wage / household income just above the 75<sup>th</sup> percentile annual wage / household income.

/c/ Worker wages multiplied by two workers per household.

/d/ Worker wages multiplied by three workers per household.

Source: Hausrath Economics Group based on Table A-4, Table A-11, and Table A-12.

**Table A-8**  
**Household Income by Number of Workers per Household and Household Size**  
**Institutional Land Use**

	Mean Annual Wage	25th Percentile Annual Wage	50th Percentile (Median) Annual Wage	75th Percentile Annual Wage
<b>Worker Wages /a/</b>	\$69,010	\$43,863	\$61,059	\$86,849

**Household Income by Number of Workers per Household and Household Size:**

<b>Workers per Household</b>	<b>1-person</b>	<b>2-person</b>	<b>3-person</b>	<b>4 or more-person</b>
<b>1 worker</b>				
25th percentile	\$43,863	\$43,863	\$43,863	\$43,863
50th percentile	\$61,059	\$61,059	\$61,059	\$61,059
75th percentile	\$86,849	\$86,849	\$86,849	\$86,849
> 75th percentile /b/	\$86,850	\$86,850	\$86,850	\$86,850
<b>2 workers /c/</b>				
25th percentile		\$87,726	\$87,726	\$87,726
50th percentile		\$122,118	\$122,118	\$122,118
75th percentile		\$173,698	\$173,698	\$173,698
> 75th percentile /b/		\$173,699	\$173,699	\$173,699
<b>3 or more workers /d/</b>				
25th percentile			\$131,589	\$131,589
50th percentile			\$183,177	\$183,177
75th percentile			\$260,547	\$260,547
> 75th percentile /b/			\$260,548	\$260,548

Note: Household income by number of workers per household calculated based on corresponding percentile annual wage for this land use and the assumption that all workers in multiple worker households have the same annual wage.

Households in the 25<sup>th</sup> percentile category have household incomes up to the amount indicated in the corresponding cell by household size. Households in the 50<sup>th</sup> percentile category have household incomes greater than the 25<sup>th</sup> percentile amount up to the 50<sup>th</sup> percentile amount. Households in the 75<sup>th</sup> percentile category have household incomes greater than the 50<sup>th</sup> percentile amount up to the 75<sup>th</sup> percentile amount. Households in the greater than 75<sup>th</sup> percentile category have household incomes at or above the amount indicated in the corresponding cell by household size.

/a/ From Table A-4.

/b/ The greater than 75<sup>th</sup> percentile is represented by an annual wage / household income just above the 75<sup>th</sup> percentile annual wage / household income.

/c/ Worker wages multiplied by two workers per household.

/d/ Worker wages multiplied by three workers per household.

Source: Hausrath Economics Group based on Table A-4, Table A-11, and Table A-12.

**Table A-9**  
**Household Income by Number of Workers per Household and Household Size**  
**Industrial Land Use**

	Mean Annual Wage	25th Percentile Annual Wage	50th Percentile (Median) Annual Wage	75th Percentile Annual Wage
<b>Worker Wages /a/</b>	\$61,273	\$41,346	\$54,995	\$74,206
<b>Household Income by Number of Workers per Household and Household Size:</b>				
<b>Workers per Household</b>	<b>1-person</b>	<b>2-person</b>	<b>3-person</b>	<b>4 or more-person</b>
1 worker				
25th percentile	\$41,346	\$41,346	\$41,346	\$41,346
50th percentile	\$54,995	\$54,995	\$54,995	\$54,995
75th percentile	\$74,206	\$74,206	\$74,206	\$74,206
> 75th percentile	\$74,207	\$74,207	\$74,207	\$74,207
2 workers /c/				
25th percentile		\$82,692	\$82,692	\$82,692
50th percentile		\$109,990	\$109,990	\$109,990
75th percentile		\$148,412	\$148,412	\$148,412
> 75th percentile		\$148,413	\$148,413	\$148,413
3 or more workers /d/				
25th percentile			\$124,038	\$124,038
50th percentile			\$164,985	\$164,985
75th percentile			\$222,618	\$222,618
> 75th percentile /b/			\$222,619	\$222,619

Note: Household income by number of workers per household calculated based on corresponding percentile annual wage for this land use and the assumption that all workers in multiple worker households have the same annual wage.

Households in the 25<sup>th</sup> percentile category have household incomes up to the amount indicated in the corresponding cell by household size. Households in the 50<sup>th</sup> percentile category have household incomes greater than the 25<sup>th</sup> percentile amount up to the 50<sup>th</sup> percentile amount. Households in the 75<sup>th</sup> percentile category have household incomes greater than the 50<sup>th</sup> percentile amount up to the 75<sup>th</sup> percentile amount. Households in the greater than 75<sup>th</sup> percentile category have household incomes at or above the amount indicated in the corresponding cell by household size.

/a/ From Table A-4.

/b/ The greater than 75<sup>th</sup> percentile is represented by an annual wage / household income just above the 75<sup>th</sup> percentile annual wage / household income.

/c/ Worker wages multiplied by two workers per household.

/d/ Worker wages multiplied by three workers per household.

Source: Hausrath Economics Group based on Table A-4, Table A-11, and Table A-12.

**Table A-10**  
**Household Income by Number of Workers per Household and Household Size**  
**Warehouse/Distribution and Self- or Mini-Storage Land Uses**

	Mean Annual Wage	25th Percentile Annual Wage	50th Percentile (Median) Annual Wage	75th Percentile Annual Wage
<b>Worker Wages /a/</b>	\$52,197	\$35,814	\$46,392	\$61,861
<b>Household Income by Number of Workers per Household and Household Size:</b>				
<b>Workers per Household</b>	<b>1-person</b>	<b>2-person</b>	<b>3-person</b>	<b>4 or more-person</b>
<b>1 worker</b>				
25th percentile	\$35,814	\$35,814	\$35,814	\$35,814
50th percentile	\$46,392	\$46,392	\$46,392	\$46,392
75th percentile	\$61,861	\$61,861	\$61,861	\$61,861
> 75th percentile /b/	\$61,862	\$61,862	\$61,862	\$61,862
<b>2 workers /c/</b>				
25th percentile		\$71,628	\$71,628	\$71,628
50th percentile		\$92,784	\$92,784	\$92,784
75th percentile		\$123,722	\$123,722	\$123,722
> 75th percentile /b/		\$123,723	\$123,723	\$123,723
<b>3 or more workers /d/</b>				
25th percentile			\$107,442	\$107,442
50th percentile			\$139,176	\$139,176
75th percentile			\$185,583	\$185,583
> 75th percentile /b/			\$185,584	\$185,584

Note: Household income by number of workers per household calculated based on corresponding percentile annual wage for these land uses and the assumption that all workers in multiple worker households have the same annual wage.

Households in the 25<sup>th</sup> percentile category have household incomes up to the amount indicated in the corresponding cell by household size. Households in the 50<sup>th</sup> percentile category have household incomes greater than the 25<sup>th</sup> percentile amount up to the 50<sup>th</sup> percentile amount. Households in the 75<sup>th</sup> percentile category have household incomes greater than the 50<sup>th</sup> percentile amount up to the 75<sup>th</sup> percentile amount. Households in the greater than 75<sup>th</sup> percentile category have household incomes at or above the amount indicated in the corresponding cell by household size.

/a/ From Table A-4.

/b/ The greater than 75<sup>th</sup> percentile is represented by an annual wage / household income just above the 75<sup>th</sup> percentile annual wage / household income.

/c/ Worker wages multiplied by two workers per household.

/d/ Worker wages multiplied by three workers per household.

Source: Hausrath Economics Group based on Table A-4, Table A-11, and Table A-12.

**Table A-11**  
**2020 Household Income Limits**

<b>Income Level</b>	<b>Household Size</b>			
	<b>One Person</b>	<b>Two Person</b>	<b>Three Person</b>	<b>Four Person</b>
Extremely Low Income	\$27,450	\$31,350	\$35,250	\$39,150
Very Low Income	\$45,700	\$52,200	\$58,750	\$65,250
Low Income	\$73,100	\$83,550	\$94,000	\$104,400
Median Income	\$83,450	\$95,350	\$107,300	\$119,200
Moderate Income	\$100,150	\$114,450	\$128,750	\$143,050

Note: The City of Oakland income limits are those published for Alameda County.

Source: State of California Department of Housing and Community Development Department, State Income Limits for 2020, April 2020.

**Table A-12**  
**Workers per Household by Household Size, City of Oakland:**  
**Households and Workers in Households**

<b>Number of Households by Number of Workers per Household and Household Size:</b>						
<b>Workers per Household</b>	<b>Household Size</b>				<b>Total Households</b>	<b>Percent of Total</b>
	<b>1-person</b>	<b>2-person</b>	<b>3-person</b>	<b>4 or more-person</b>		
1 worker	30,304	15,844	8,366	9,302	<b>63,816</b>	51%
2 workers		24,468	10,556	12,676	<b>47,700</b>	38%
3 or more workers			3,682	9,035	<b>12,717</b>	10%
<b>Total</b>	<b>30,304</b>	<b>40,312</b>	<b>22,604</b>	<b>31,013</b>	<b>124,233</b>	<b>100%</b>
<b>Percent of Total</b>	<b>24%</b>	<b>32%</b>	<b>18%</b>	<b>25%</b>	<b>100%</b>	

<b>Number of Workers by Number of Workers per Household and Household Size:</b>						
<b>Workers per Household</b>	<b>Household Size</b>				<b>Total Households</b>	<b>Percent of Total</b>
	<b>1-person</b>	<b>2-person</b>	<b>3-person</b>	<b>4 or more-person</b>		
1 worker /a/	30,304	15,844	8,366	9,302	<b>63,816</b>	<b>31%</b>
2 workers /b/		48,936	21,112	25,352	<b>95,400</b>	<b>46%</b>
3 or more workers /c/			11,046	37,348	<b>48,394</b>	<b>23%</b>
<b>Total</b>			<b>40,254</b>	<b>72,002</b>	<b>207,610</b>	<b>100%</b>

<b>Distribution of Workers by Number of Workers per Household and Household Size:</b>						
<b>Workers per Household</b>	<b>Household Size</b>				<b>Total Workers</b>	
	<b>1-person</b>	<b>2-person</b>	<b>3-person</b>	<b>4 or more-person</b>		
1 worker	15%	8%	4%	4%	<b>31%</b>	
2 workers		24%	10%	12%	<b>46%</b>	
3 or more workers			5%	18%	<b>23%</b>	
	<b>15%</b>	<b>31%</b>	<b>20%</b>	<b>35%</b>	<b>100%</b>	

Note: Detail may not add to total due to independent rounding.

/a/ Number of households (from row above) multiplied by one worker per household.

/b/ Number of households (from row above) multiplied by two workers per household.

/c/ For 3-person households, number of households (from row above), multiplied by 3. For 4 or more person households, number of households (from row above) multiplied by 3 plus the residual number of workers after controlling for the total of 207,610 workers in worker households. This total is derived by multiplying total households with workers from row above (124,233) by the average number of workers per worker household (1.67) (from Table A-13).

Sources: U.S Census, American Community Survey, 2019 Five-Year Estimates, Detailed Tables: Household Size by Number of Workers Per Household, City of Oakland and Hausath Economics Group.

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**Table A-13**  
**Workers per Worker-Household, City of Oakland**

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Workers with Earnings Living in Oakland /a/	219,380
Households with Earnings /b/	131,276
Workers per Worker-Household	1.67

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/a/ Table B08119 Means of Transportation to Work by Workers' Earnings in the Past 12 Months. Earnings are defined as the sum of wage or salary income and net income from self-employment. "Earnings" represent the amount of income received regularly for people 16 years old and over before deductions for personal income taxes, Social Security, bond purchases, union dues, Medicare deductions, etc. An individual with earnings is one who has either wage/salary income or self-employment income, or both.

/b/ Table B19051: Earnings in the Past 12 Months for Households.

Source: U.S Census, American Community Survey, 2019 Five-Year Estimates, Detailed Tables.

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## **APPENDIX B: HOUSING AFFORDABILITY GAP ANALYSIS**

The housing affordability gap is defined as the difference between the development cost supported by what extremely low-, very low-, low-, and moderate-income households can afford to pay for housing and the total cost to produce new housing units for those households. This updated analysis assumes all affordable housing is provided as rental housing, consistent with current practice. This assumption does not preclude the City from using impact fee revenue for ownership as well as rental housing. The housing affordability gap analysis requires the following three steps, explained in detail in the subsequent text and tables.

- Step 1.** Estimate affordable rents for households in targeted income groups.
- Step 2.** Estimate development costs of building new housing units targeted to low- and moderate-income households, based on current costs.
- Step 3.** Calculate the difference between the development cost supported by what low- and moderate-income households can afford to pay for housing and the total cost to develop affordable rental units.

### **ESTIMATING AFFORDABLE RENTS**

The first step in the housing affordability gap analysis is estimating the maximum amount that households at the targeted income levels can afford to pay for housing. This updated analysis assumes all affordable housing is provided as rental housing. This analysis uses the definition of “affordable rent” provided in California Health and Safety Code Section 50053 to determine the rent limits for rental housing development projects receiving financial assistance.

**Table B-1** presents the unit types and household sizes used in the affordability gap analysis.

**Table B-2** provides the assumptions used to determine affordable rent.

**Table B-3** presents the rents that households at each income level and household size can afford. Households are assumed to spend 30 percent of gross monthly household income on rent and utilities. The maximum affordable monthly rent calculation deducts a monthly utility cost.

**Table B-1**  
**Unit Types and Household Sizes**  
**Used in Affordability Gap Analysis**

<b>Unit Type</b>	<b>Household Size</b>
Studio	1 person
1-bedroom	2 persons
2-bedroom	3 persons
3- bedroom	4 persons

Source: Hausrath Economics Group.

**Table B-2**  
**Assumptions Used to Determine Affordable Rent Limits by Income**  
**Category for the Affordability Gap Analysis**

<b>Income Category</b>	<b>Percent of Area Median Income/a/</b>
Extremely Low-Income	30%
Very Low-Income	50%
Low-Income	60%
Moderate-Income	110%

Note: While the affordable rent limits used in the affordability gap calculations are capped at the percentages indicated in this table, the affordable housing demand analysis includes *all households in each income category* up to the maximum household income indicated in the State Income Limits.

/a/ Area median income published annually for each county by the State of California Department of Housing and Community Development (State Income Limits). Income limits establish household eligibility for programs and are used to calculate affordable housing costs (affordable prices and rents) for housing financial assistance programs.

Source: State of California Health and Safety Code Section 50053.

**Table B-3**  
**Affordable Rent Calculations by Income Level and Unit Type/Size**

Household Size (Persons per HH)	Studio	1 BR	2 BR	3 BR
	1	2	3	4
<b>Extremely Low Income</b>				
Maximum Annual Household Income at 30% AMI	\$25,035	\$28,605	\$32,190	\$35,760
Maximum Monthly Household Income	\$2,086	\$2,384	\$2,683	\$2,980
Maximum Monthly Housing Cost /a/	\$626	\$715	\$805	\$894
Monthly Utility Deduction /c/	\$87	\$103	\$144	\$182
<b>Maximum Available for Rent /b/</b>	<b>\$539</b>	<b>\$612</b>	<b>\$661</b>	<b>\$712</b>
<b>Very Low Income</b>				
Maximum Annual Household Income at 50% AMI	\$41,725	\$47,675	\$53,650	\$59,600
Maximum Monthly Household Income	\$3,477	\$3,973	\$4,471	\$4,967
Maximum Monthly Housing Cost /a/	\$1,043	\$1,192	\$1,341	\$1,490
Monthly Utility Deduction /c/	\$87	\$103	\$144	\$182
<b>Maximum Available for Rent /b/</b>	<b>\$956</b>	<b>\$1,089</b>	<b>\$1,197</b>	<b>\$1,308</b>
<b>Low Income</b>				
Maximum Annual Household Income at 60% AMI	\$50,070	\$57,210	\$64,380	\$71,520
Maximum Monthly Household Income	\$4,173	\$4,768	\$5,365	\$5,960
Maximum Monthly Housing Cost /a/	\$1,252	\$1,430	\$1,610	\$1,788
Monthly Utility Deduction /c/	\$87	\$103	\$144	\$182
<b>Maximum Available for Rent /b/</b>	<b>\$1,165</b>	<b>\$1,327</b>	<b>\$1,466</b>	<b>\$1,606</b>
<b>Moderate Income</b>				
Maximum Annual Household Income at 110% AMI	\$91,795	\$104,885	\$118,030	\$131,120
Maximum Monthly Household Income	\$7,650	\$8,740	\$9,836	\$10,927
Maximum Monthly Housing Cost /a/	\$2,295	\$2,622	\$2,951	\$3,278
Monthly Utility Deduction /c/	\$87	\$103	\$144	\$182
<b>Maximum Available for Rent /b/</b>	<b>\$2,208</b>	<b>\$2,519</b>	<b>\$2,807</b>	<b>\$3,096</b>

/a/ 30 percent of maximum monthly household income.

/b/ Maximum monthly housing cost minus utility deduction.

/c/ Oakland Housing Authority, "Section 8 Utility & Appliance Allowances for Tenant-Paid Utilities", December 1, 2017.

Sources: Table A-11, Table B-2, Oakland Housing Authority, and Hausrath Economics Group.

## AFFORDABLE HOUSING DEVELOPMENT COSTS

The second step in the housing affordability gap analysis is estimating the cost of developing new housing units targeted to low- and moderate-income households. The costs and characteristics used in this analysis are based on development budgets for new construction of mid-rise multifamily affordable rental housing projects under development in Oakland by the affordable rental housing development sector.

Hausrath Economics Group (HEG) reviewed development budgets submitted in response to the August 2019 Notice of Funding Availability (NOFA) for New Construction of Multifamily

Affordable Housing. All projects submitted were rental projects. We reviewed a total of seven development budgets for mid-rise projects ranging from 19 to 181 units. HEG included three projects using conventional construction and not targeted to senior households as the basis for our estimating factors.

All the projects responding to the 2019-2020 NOFA relied on multiple sources of subsidy to cover total development costs. The request for City funding ranged from 6% to 34% of total development cost, averaging 13% of costs. Non-city sources of funding included: Federal Community Development Block Grant, Federal Home Loan Bank of San Francisco Affordable Housing Program, and California Housing and Community Development funds from various programs (Multifamily Housing Program, Infill Infrastructure Grant, Affordable Housing and Sustainable Communities, No Place Like Home, Housing for a Health California). All projects also depended on equity investments tied to the Low-Income Housing Tax Credit.

The project development budgets provided factors for average unit size (square feet) by unit type (number of bedrooms and unit cost factors for multifamily affordable rental housing development). Based on evaluation of these projects, the average development cost is \$900 per net residential square foot (from a range \$805 to \$1,087 per net residential square foot). A more fine-grained analysis of residential development budgets would reveal that per-square-foot costs are not the same across unit sizes. They are generally higher for smaller units and lower for larger units. It is reasonable for the purposes of this analysis, however, to use a generalized cost factor representing an average across different unit sizes.

## **CALCULATING THE HOUSING AFFORDABILITY GAP**

The final step in the analysis is calculating the housing affordability gap. **Table B-4** shows the housing affordability gap calculations. For each unit type / household size within each income category, the gap is defined as the difference between the per-unit development cost and the supportable debt per unit.

**Table B-4  
Housing Affordability Gap Calculations**

<b>Income Level and Unit Type</b>	<b>Unit Size (net square feet)/a/</b>	<b>Maximum Monthly Rent/b/</b>	<b>Annual Rental Income</b>	<b>Net Operating Income/c/</b>	<b>Available for Debt Service/d/</b>	<b>Supportable Debt/e/</b>	<b>Development Costs/f/</b>	<b>Affordability Gap</b>
<b>Extremely Low-Income</b>								
Studio	500	\$539	\$6,468	(\$3,555)	\$0	\$0	\$450,000	\$450,000
1 Bedroom	640	\$612	\$7,344	(\$2,723)	\$0	\$0	\$576,000	\$576,000
2 Bedroom	870	\$661	\$7,932	(\$2,165)	\$0	\$0	\$783,000	\$783,000
3 Bedroom	1,140	\$712	\$8,544	(\$1,583)	\$0	\$0	\$1,026,000	\$1,026,000
<b>Weighted Average Affordability Gap /g/</b>								<b>\$695,430</b>
<b>Very Low-Income</b>								
Studio	500	\$956	\$11,472	\$1,198	\$959	\$15,534	\$450,000	\$434,466
1 Bedroom	640	\$1,089	\$13,068	\$2,715	\$2,172	\$35,188	\$576,000	\$540,812
2 Bedroom	870	\$1,197	\$14,364	\$3,946	\$3,157	\$51,147	\$783,000	\$731,853
3 Bedroom	1,140	\$1,308	\$15,696	\$5,211	\$4,169	\$67,550	\$1,026,000	\$958,450
<b>Weighted Average Affordability Gap /g/</b>								<b>\$654,043</b>
<b>Low-Income</b>								
Studio	500	\$1,165	\$13,980	\$3,581	\$2,865	\$46,418	\$450,000	\$403,582
1 Bedroom	640	\$1,327	\$15,924	\$5,428	\$4,342	\$70,357	\$576,000	\$505,643
2 Bedroom	870	\$1,466	\$17,592	\$7,012	\$5,610	\$90,898	\$783,000	\$692,102
3 Bedroom	1,140	\$1,606	\$19,272	\$8,608	\$6,887	\$111,586	\$1,026,000	\$914,414
<b>Weighted Average Affordability Gap /g/</b>								<b>\$616,868</b>
<b>Moderate-Income</b>								
Studio	500	\$2,208	\$26,496	\$15,471	\$12,377	\$200,544	\$450,000	\$249,456
1 Bedroom	640	\$2,519	\$30,228	\$19,017	\$15,213	\$246,501	\$576,000	\$329,499
2 Bedroom	870	\$2,807	\$33,684	\$22,300	\$17,840	\$289,059	\$783,000	\$493,941
3 Bedroom	1,140	\$3,096	\$37,152	\$25,594	\$20,476	\$331,765	\$1,026,000	\$694,235
<b>Weighted Average Affordability Gap /g/</b>								<b>\$431,081</b>

/a/ Unit sizes based on analysis of projects responding to the 2019-2020 Notice of Funding Availability for New Construction Multifamily Affordable Housing issued by the City of Oakland Housing and Community Development Department.

/b/ Net affordable rents based on 2020 income limits after deducting utility costs. See Table B-3.

/c/ Amount available for debt. Assumes 5% vacancy and collection loss and \$9,700 per unit for operating expenses and reserves (based on applications responses to City of Oakland 2019-2020 Notice of Funding Availability for New Construction Multifamily Affordable Housing).

/d/ Assumes 1.25 Debt Coverage Ratio.

/e/ Assumes 5.38%, 30-year loan. Calculations based on annual payments.

/f/ Cost per unit based on \$900 per net residential square foot to develop mid-rise multifamily affordable housing in Oakland. This assumption is based on analysis of development budgets for projects responding to the 2019-2020 Notice of Funding Availability (NOFA) for New Construction Multifamily Affordable Housing issued by the City of Oakland Housing and Community Development Department. The \$900 per net residential square foot average was applied uniformly across unit square footages and the above Development Costs do not reflect actual costs by unit type / number of bedrooms from the 2019-2020 New Construction NOFA.

/g/ Calculated as the weighted average across unit sizes. The weighted average is based on the distribution of Oakland worker households by household size (Table A-13).

Sources: Hausrath Economics Group based on Table B-3 and development budgets for projects responding to the 2019-2020 Notice of Funding Availability for New Construction Multifamily Affordable Housing issued by the City of Oakland Housing and Community Development Department.

Supportable debt is calculated based on the net operating income generated by an affordable monthly rent (from Table B-3), incorporating assumptions about operating expenses, reserves, vacancy and collection loss, and market-rate mortgage terms. For each income category, the weighted average affordability gap across units ranging from studios to three-bedroom units is based on the distribution of Oakland worker households by household size.