Report

Housing Impact Fee Nexus Analysis

Prepared for:
City of San Diego

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INTRODUCTION

The following report summarizes an analysis of the impacts of non-residential development on the demand for affordable housing in the City of San Diego. The report has been prepared by Keyser Marston Associates, Inc. (KMA) for the City of San Diego, pursuant to a contract to prepare a nexus analysis and assist in updating the City's housing impact fee program.

Background

The City of San Diego adopted an ordinance in 1992 establishing a housing impact fee program. The fee program was supported by a nexus study prepared in 1989 that demonstrated the need for housing based on new jobs associated with commercial and industrial development. The fee program was incorporated in the City's Municipal Code in Chapter 9, Article 8, Division 6. The fees originally ranged from roughly $0.52 to $2.12 per square foot, depending on the building type. In 1996, the fees were reduced by half and have been unchanged since then.

In December 2002, the City of San Diego's City Manager initiated an Affordable Housing Task Force made up of 20 experts from a wide variety of fields. The Task Force was charged with examining the affordable housing crisis and making recommendations on what the City might do to address the crisis. The Task Force's final report, published in June 2003, included a recommendation for an increase in the Housing Impact Fee. In October 2003, the City Council's Land Use and Housing Committee directed the Housing Commission to update the nexus study in anticipation of considering updated fee amounts. This is the nexus study the Housing Commission contracted KMA to prepare.

Purpose

The purpose of a nexus analysis is to document the linkages among construction of new workplace buildings (such as office, retail and industrial), the employees that work in them, and the demand for affordable housing. Since jobs in all types of buildings cover a range of compensation levels, the worker households demand housing at all affordability levels. The analysis quantifies demand at each affordability level for each type of building.

Different types of buildings have different employee composition, both due to the density of jobs and different occupational composition, which is tied to income structure. This analysis examines seven types of buildings or land uses:

Office
Hotel
Retail/Entertainment
Hospital/Medical
Manufacturing/Industrial
Warehousing/Storage
Educational

The conclusion of the nexus analysis is the number of households, or housing units in demand, by affordability level, associated with each building type. The nexus cost is the cost to mitigate the demand for housing, or the affordability gap for worker households at each income level.

This analysis has been conducted to meet the requirements of AB 1600, as contained in the California Government Code Section 66000 and following. Such analyses are called linkage or nexus analyses, or AB 1600 reports.

Affordability Levels

San Diego has one of the most severe affordable housing problems in the United States. Affordable housing for new worker households is out of reach of the majority of new workers drawn to the city by new jobs. In order to afford the rent on a two-bedroom apartment in the city, families need to earn more than $22 per hour, yet many types of jobs pay under $10 per hour. To purchase the median price home requires an income of at least $90,000 per year, yet the median income for a family of four is only $63,400. New households at all but the very upper income tiers are affected by the housing crisis and the housing problem continues to worsen each year.

Because San Diego's housing affordability crisis extends well beyond low-income households, this nexus analysis has been designed to include households in the middle income ranges as well. Specifically, per the direction of the Housing Commission, the following income categories are addressed:

Very Low Income (under 50% median)
Low Income (50% to 80% median)
Moderate Income (80% to 120% median)
Workforce Income (120% to 150% median)

City policy makers may adopt a fee program covering the four categories and expend fee revenues to assist the four categories, or policy makers may choose to pursue a program covering fewer income/affordability categories.

Process

In the course of preparing this analysis, City staff met with several community groups and affected parties, such as the local chapters of the Building Industry Association, the National Association of Industrial and Office Properties, and the Chamber of Commerce. The analysis presented in Sections I through IV of the report was presented to these organizations for their comment on major assumptions and methodology.

Report Organization

The report is organized into five sections as follows:

- Section I – presents a summary of the linkage concept and some of the key issues surrounding nexus analyses for jobs and housing.
- Section II – provides an overview of the economic climate in San Diego and some of the key conditions affecting the nexus analysis.
- Section III – presents an analysis of the jobs and housing relationships associated with individual prototype buildings. It is a "micro economic" analysis that concludes with a quantification of the number of households at each income level associated with each building type.
- Section IV - summarizes the cost of delivering housing units affordable to households at the various income levels, allocated to each square foot of the various building types.
- Section V – provides information to assist policy makers in evaluating fee levels and other program features for the update to the San Diego program.
- Appendices – provide additional support information and more documentation on data sources and analysis assumptions.

Data Sources and Qualifications

The analyses in this report have been prepared using the best and most recent data available. Local data was used wherever possible. The major sources were the U.S. Census 2000 and the California Employment Development Department. While we believe all sources utilized are sufficiently accurate for the purposes of the analysis, we cannot guarantee their accuracy. Keyser Marston Associates, Inc. assumes no liability for information from these and other sources.

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SECTION I – THE NEXUS CONCEPT AND MAJOR ISSUES

Introduction

This section outlines the nexus concept and some of the key issues surrounding linking new non-residential development to the demand for new residential units in the City of San Diego.

The nexus analysis and discussion focus on the relationships among development, growth, employment, income of workers and demand for housing. The analysis yields a connection between new construction of types of buildings in which there are workers and the need for additional affordable housing, a connection that is quantified both in terms of number of units and in terms of subsidy assistance needs to make units affordable.

The Legal Basis and Context

The first housing linkage programs were adopted in the cities of San Francisco and Boston in the mid-1980's. To support the linkage, the City of San Francisco commissioned a short analysis to show the relationships, or what might now be characterized as an early version of a nexus analysis. Since that time there have been several court cases and California statutes that affect what local jurisdictions must demonstrate when imposing impact fees on development projects. The most important U.S. Supreme Court cases are *Nollan v. California Coastal Commission* and *Dolan v. City of Tigard* (Oregon). The rulings on these cases, and others, help clarify what governments must find in the way of the nature of the relationship between the problem to be mitigated and the action contributing to the problem. Here, the problem is the lack of affordable housing and the action contributing to the problem is building workspaces that mean more jobs and worker households needing more affordable housing.

Following the *Nollan* decision in 1987, the California legislature enacted AB 1600 which requires local agencies proposing an impact fee on a development project to identify the purpose of the fee, the use of the fee, and to determine that there is a reasonable relationship between the fee's use and the development project on which the fee is imposed. The local agency must also demonstrate that there is a reasonable relationship between the fee amount and the cost of mitigating the problem that the fee addresses. Studies by local governments designed to fulfill the requirements of AB 1600 are often referred to as AB 1600 or "nexus" studies.

One court case that involved housing linkage fees was *Commercial Builders of Northern California v. City of Sacramento*. The commercial builders of Sacramento sued the City following the City's adoption of a housing linkage fee. Both the U.S. District Court and the Ninth Circuit Court of Appeals upheld the City of Sacramento and rejected the builders' petition. The U.S. Supreme Court denied a petition to hear the case, letting stand the lower court's opinion. The authors of this nexus study were the authors of the Sacramento study.

The Nexus Methodology

An overview of the basic nexus concept and methodology is helpful to understanding the discussion and concepts presented in this section. This overview consists of a quick "walk through" of the major steps of the analysis. The nexus analysis links new commercial buildings (or other workplaces) with new workers in the City; these workers demand additional housing in proximity to the jobs, a portion of which needs to be affordable to the workers in lower and middle income households.

The methodology utilized in this analysis is "micro" analysis that examines individual buildings. The micro nexus readily lends itself to quantification that serves as a basis for quantifying the nexus cost, or basis for the fee amount.

To illustrate the micro nexus, very simply, we can walk through the major calculations of a building. We begin by assuming a prototypical 100,000 sq. ft. building and then make the calculations as follows:

- We estimate the total number of employees working in the building based on average employment density experience.
- We use occupation and income information for typical job types in the building to calculate how many of those jobs pay compensation at the levels addressed in the analysis.
- We know from the Census that most employees are members of households where more than one person is employed; we use various factors to calculate the number of households represented in each income category.
- Then, we conclude how many of the households (divided into several subsets by income level) are associated with the building and divide by 100,000 square feet to arrive at coefficients of housing units per square foot of building area.
- In the last step, we multiply the number of households per square foot by the costs of delivering housing units affordable to these income groups.

The factors and relationships utilized in the analysis reflect long-term average conditions. Short-term conditions, such as a recession or a vigorous boom period, are not an appropriate basis for estimating impacts over the life of the building.

The Relationship Between Job Growth and Population Growth

The social issue driving this analysis is growth in middle to lower income households. New population growth in most U.S. regions occurs primarily as a result of job growth. Over the long term, the vast majority of growth in the State of California and its sub-regions is job driven. The arrival of new population creates "secondary" demand for jobs in retail outlets and services that

follow. Growth in the greater San Diego region is predominantly job driven. Most people coming to the region would not come if they could not expect to find a job. People born in the local area would not stay without jobs. This is the long-term pattern. In the short-term, economic cycles and other factors can result in population growth without jobs to support the growth. If an economic region in the U.S. does not maintain job growth, there is an out-migration to regions where job growth is occurring. Many cities in the Midwest during the 70's and 80's are examples.

The Relationship Between Construction and Job Growth

If population growth, especially lower income population, is predominantly job driven in the greater San Diego area, the question arises as to the source or "cause" of employment growth itself.

Simplistically we can say that employment growth does not have "one cause". Many factors underlie the reasons for growth in employment in a given region; these factors are complex, interrelated, and often associated with forces at the national or even international level. One of the factors is the delivery of new workspace buildings. The nexus argument does not make the case that the construction of new buildings is solely responsible for growth. However, especially in the San Diego area, new construction is uniquely important, first, as one of a number of parallel factors contributing to growth, and second, as a unique and essential condition precedent to growth.

As to the first, construction itself encourages growth. When the state economy is growing, the most rapidly growing areas in the state are those where new construction is vigorous as a vital industry. In regions such as the San Diego area where multiple forces of growth exist, the political and regulatory environment join forces with the development industry to attract growth by providing new work spaces, particularly those of a speculative nature. The development industry frequently serves as a proactive force inducing growth to occur or be attracted to specific geographic areas or locations.

Second, workplace buildings bear a special relationship to growth, different from other parallel causes, in that buildings are a *condition precedent* to growth. Job growth does not occur in modern service economies without buildings to house new workers. Unlike other factors that are responsible for growth, buildings play the additional unique role that growth cannot occur without them. Conversely, it is well established that the inability to construct new workplace buildings will constrain or even halt job growth.

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

The Housing Element of the City of San Diego, the Affordable Housing Task Force Report, and other materials clearly document that the housing needs of the existing lower and middle income households are not being met. This existing housing shortage, especially at the lowest income levels, is manifested in numerous ways such as payment of far more than 30% of income for rent as set forth in federal and state guidelines, overcrowding and other factors which are extensively documented by the Census and City reports.

This nexus study does not address the housing needs of the existing population. Rather, the study focuses exclusively on documenting and quantifying the housing needs of new households where an employee works in a new workplace building, such as an office building.

The Affordable Housing Task Force and other analyses have found that new housing affordable to lower and middle income households is not being added to the supply in sufficient quantity to meet the needs of new employee households. If this were not the case and significant numbers of units were being added to the supply to accommodate the low to middle income groups, or if residential units in San Diego were experiencing significant vacancy levels, particularly in affordable units, then the need for new units would be questionable.

Substitution Factor

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

Indirect Employment and Multipliers

The Micro Economic Nexus Analysis, which examines prototype buildings, addresses direct "inside" employment only. In the case of the office building, for example, direct employment covers the various managerial, professional and clerical people that work in the building; it does not include the janitorial workers, the window washers, the security guards, the delivery services, the landscape maintenance workers, and many others that are associated with the normal functioning of an office building. These indirect employees tend to be the many service workers at the lower end of the pay scale. No good data sources were located that deal with indirect employees in various type buildings. If one thinks about who the lowest income workers are, one can observe that lower income workers include a whole host of service workers who do not work in any type of building as regular employees but whose jobs are associated with such structures. In other words, any analysis that ties lower income housing to the number of workers inside buildings will continue to understate the demand. Thus, confining the analysis to the direct employees does not address all the low to middle income workers associated with each type of building and significantly understates the impacts.

If the concept of indirect employees were introduced into the analysis, one might ask about multipliers. Multipliers refer to the concept that the income generated by certain types of jobs recycles through the economy resulting in additional jobs. This study omits such multiplier effects and thus conservatively counts only direct impacts.

Special Adjustments in San Diego Analysis

There are several special adjustments in the analysis specific to San Diego and the time at which the analysis has been prepared.

Changes in Labor Force Participation

In the 1960's through the 1980's there were significant increases in labor force participation, primarily among women. As a result, some of the new workers were reentering the labor force and already had local housing, thus reducing demand for housing associated with job growth. Since the 1990's, however, labor force participation rates have slowed to the point they are nearly stabilized. As such, an adjustment for increase in labor force participation is no longer warranted in a nexus analysis.

Discount for Changing Industries

It is general practice in the preparation of a nexus analysis to examine the major sectors of the local economy and determine if there are long term trends in employment suggesting either decline or restructuring. In the case of long-term decline of one or more industries or sectors, it is appropriate to recognize that all new jobs may not be net new jobs. In some regions, for example, there were periods when aerospace and defense spending was in decline. In San Francisco, by way of another example, there has been major long-term economic decline in the industrial land use activity sectors, as evidenced by the decline of the Port and its related activities. During the 1980's in that city, for every job gained in an office building, there was more than half a job lost in the industrial sector. Short-term upheavals such as the closing of a military base or single large manufacturing plant may also warrant an adjustment in the analysis.

San Diego during the 1990's experienced decreasing levels of employment in the defense and transportation manufacturing sector. Starting from a base of a little under 40,000 jobs, over 20,000 jobs were lost. In addition, there were losses in the few agricultural and mining sector jobs that remained. As a result, some of the jobs gained in the growing sectors of the economy offset losses in the declining categories. In other words, some workers in new buildings are not net new and already have housing. Looking ahead, job losses in the defense sector are no longer anticipated.

If an underlying premise of a jobs housing nexus is labor force mobility — i.e., workers are attracted to areas where jobs are made available, in part through the delivery of work spaces, then it must also be recognized that loss of jobs means workers either leave the area or become employed in another activity. A discount adjustment is used to recognize these changes within the local economy.

Other San Diego Affordable Housing Programs

The City of San Diego is committed to creating new opportunities for affordable housing as well as preserving the existing affordable housing stock.

The City has a comprehensive and multi-faceted program that tackles the affordable housing shortage from many approaches. The recently adopted inclusionary program makes all residential construction contribute funds to help fund the construction of more affordable units. The job housing linkage program is but one of many programs in the City of San Diego that raises funds to increase the supply of affordable housing.

SECTION II – ECONOMIC CLIMATE AND ANALYSIS INPUTS

This section summarizes the economic climate in San Diego and provides background on some of the key relationships in San Diego that underlie the jobs housing linkage. In particular, employment growth, and affordable housing production are reviewed. The history of housing production, particularly affordable housing production, compared with the demand generated by new workers is summarized.

In addition to historical data, this section contains a projection of jobs and dwelling units, as prepared by local and statewide planning agencies, such as the San Diego Association of Governments (SANDAG). It must be emphasized, however, that the nexus relationships as established in this analysis are not contingent upon a specific projected level of employment growth being realized. The relationships linking construction, employment, and affordable housing are critical to the nexus, but the specific projected levels of growth are not. If employment growth occurs more slowly than projected, commercial and industrial construction and housing demand will also be less than projected. In this analysis linkages are established on a per square foot basis (Section III).

Employment History and Trends

SANDAG regularly publishes regional employment inventory and other related data. SANDAG is the most widely used data source by local planning agencies in the San Diego Area. SANDAG presents data according to a city's current boundaries (Jurisdictional Boundary). According to SANDAG, employment growth in the San Diego jurisdictional boundary during the 1990's decade registered a net increase of 103,878 total jobs, an increase of 15%. Between 1990 and 2000, SANDAG's estimates for job growth in San Diego are:

Year	Jurisdiction Boundary Jobs
1990[1]	673,722
2000[2]	777,600
Growth	103,878

[1] SANDAG Regional Employment Inventory, 1994
[2] SANDAG Estimates for 2000

In addition to total job growth, it is also useful to examine job growth by industry, as total employment figures sometimes obscure the dynamics and shifts that have occurred within individual sectors of an economy. SANDAG data for 1990 and 2000 was used to examine general employment change across industries in San Diego.

Major Industry	Jobs		
	1990	2000	Change
Agriculture and Mining	3,371	1,368	-63%
Manufacturing	87,933	73,166	-17%
Retail	100,633	110,046	9%
Service	196,972	256,370	30%
Other Jobs[3]	284,453	336,650	18%
Total	673,722	777,600	15%

Employees in these industries are occupants of the building types subject to this analysis — retail, office, hotel, medical, manufacturing, warehousing, and educational. Retail buildings basically add jobs in the retail category, hotels in the service category, manufacturing in the manufacturing category. Office buildings house workers in service and other subcategories. Warehousing adds jobs in the other and retail[4] subcategories. Medical and educational buildings add employment in the service sector.

According to SANDAG, jobs in the service industry within the San Diego jurisdictional boundaries grew by 59,398 jobs, or 30% during the 1990's decade. Following the service industry, the "other" subcategory registered a growth of 18%. During the same period, manufacturing jobs declined substantially with a loss of 17%. Agricultural jobs lost 63% of employment, although this sector is not a significant component of total employment. This information is presented in Table II-1 found at the end of this section.

The decline in manufacturing employment during the 1990's may be largely explained by a reduction in national defense spending. In a separate data set for the San Diego region[5], SANDAG reports that the defense and transportation manufacturing sector lost over 20,000 jobs from a base of 39,000 jobs during the period from 1990 to 1998, or over 50%. During this same period, other types of manufacturing gained in regional employment, but not to the extent of the losses in the defense related sector. At the city level, the decline in total manufacturing employment most likely is attributable to the defense sector. Given the current phase of

[3] Other jobs include construction, transportation. communications, utilities; finance, insurance, real estate; self-employed and domestic, national security and government.

[4] The warehouse building type was defined as inclusive of wholesalers.

[5] SANDAG. 2001. INFO: San Diego Regional Employment Clusters, Engines of the Modern Economy.

escalating national defense spending, this decline has presumably been halted and could even be reversed in the 2000's decade.

The declining industries adjustment in the analysis in Section III is included to address job losses and adjustments in some sectors and recognize that all new building construction may not be completely equivalent to net new employment growth.

Characteristics of San Diego Employees and Their Households

This section examines several key characteristics of San Diego employees and their households, particularly those that are relevant to the jobs affordable housing linkage. These characteristics include:

- The number of workers per worker household on average;
- Income characteristics; and
- Commute patterns.

Each of these factors impacts how many new workers in San Diego buildings will seek housing within the City. These characteristics become key inputs in the micro economic analysis of the linkage between workspace buildings and affordable housing demand.

Workers per Worker Household

The workers per household characteristic provides the link between the number of employees and the number of households associated with the employees, recognizing that most households today have more than one worker. The number of workers per household in a given geographic area is a function of household size, labor force participation rate and employment availability.

Historically, the national labor force participation rate rose steadily for three decades since the early 1960's as more and more women entered the labor force. The rate appears to have leveled off in the 1990's. Nexus studies prepared in the late 1980's and early 1990's often made an adjustment for increases in labor force participation to recognize that some employment growth already was living locally and had housing. We no longer make such an adjustment.

For the nexus analysis, the characteristic of most direct interest is the number of workers per worker household. Worker households are defined as those households with a wage or salary income, as reported in the 2000 U.S. Census. In other words, worker households are distinguished from total households in that the universe of worker households does not include elderly or other households in which members are retired or do not work for other reasons.

Student households and unemployed households on public assistance are also excluded from worker households.

According to the 2000 U.S. Census, the number of workers per worker household in the City of San Diego was 1.61. In San Diego County, the Census reports a ratio of 1.66. Since workers in the City of San Diego are likely to live all over San Diego County, the County average is more reflective of workers in San Diego.

Wages and Salaries of San Diego Workers and Household Income

The average wage or salary of San Diego workers and the income of households formed by the 1.66 workers determines the household's ability to afford housing. Each year, the California Employment Development Department (EDD) reports information on average wages and salaries paid to San Diego County workers, by occupation type.

A summary of the occupations associated with each building was developed from the 2002 National Industry-Specific Occupational Employment Estimates, produced by the U.S. Bureau of Labor Statistics, which cross references occupations by industry. Appendix Tables 1, 3, 5, 7, 9, 11, and 13 present summaries for each building type.

The following is a summary table of average salary levels for major occupation groups by building type. A detailed summary of wages and salaries for occupations in each building type is provided in Appendix Tables 2, 4, 6, 8, 10, 12, and 14.

Compensation by Occupation for the Building Type
(San Diego County)

Building Type	Major Occupation Groups	% of Employment	Average Annual Income
Office			
	Office and Administrative Support	36%	$30,100
	Business and Financial Operations	10%	$55,600
	Management	9%	$95,800
Hotel			
	Building and Grounds (incl. Housekeeping)	30%	$19,900
	Food Preparation & Serving	29%	$18,400
	Office and Administrative Support	17%	$25,700
Retail/Entertainment			
	Sales	28%	$26,600
	Food Preparation & Serving	24%	$18,300
	Office and Administrative Support	14%	$28,000

Building Type	Major Occupation Groups	% of Employment	Average Annual Income
Hospital/Medical			
	Healthcare Practitioner & Technical	44%	$57,300
	Healthcare Support	19%	$23,300
	Office and Administrative Support	13%	$29,500
Manufacturing/Industrial			
	Production	39%	$28,200
	Office and Administrative Support	11%	$30,900
	Management	8%	$98,300
Warehousing/Storage			
	Office and Administrative Support	25%	$28,300
	Transportation and Material Moving	23%	$24,700
	Sales (Wholesale and Retail)	22%	$50,600
Educational			
	Education, Training, and Library	59%	$43,900
	Office and Administrative Support	11%	$30,600
	Building and Grounds	5%	$22,200

Source: California Employment Development Department, 2002 Occupational Employment Statistics Survey, Wages 3rd Quarter 2003, San Diego County

The occupations with the largest share of jobs in the lowest compensation levels are in the retail and hotel industries, or the industries related to San Diego's huge tourism sector.

Household Income

When workers in these occupations form households, their income, either alone or in combination with other workers, produces the household income. In addition, of course, there may be children and/or other household members who are not employed. According to HUD, the annual median income of a four-person household in San Diego County for the year 2003 is $59,900 (the most recent available information at the time of the analysis preparation). This analysis focuses on four classifications of household income:

- Very Low-Income – less than 50% of Median Income
- Low-Income – 51% to 80% of Median Income
- Moderate-Income – 81% to 120% of Median Income
- "Workforce" – 121% to 150% of Median Income

The income classifications for two, three and four person households in San Diego County for 2003 appear in the table below.

Two Person HH

50% of Median Income	$25,500
80% of Median Income	$40,850
Median Income	$47,900
120% of Median Income	$57,500
150% of Median Income	$71,900

Three Person HH

50% of Median Income	$28,700
80% of Median Income	$45,950
Median Income	$53,900
120% of Median Income	$64,700
150% of Median Income	$80,900

Four Person HH

50% of Median Income	$31,900
80% of Median Income	$51,050
Median Income	$59,900
120% of Median Income	$71,900
150% of Median Income	$89,900

Source: San Diego Housing Commission, U S. Dept of Housing and Urban Development

The above income levels are the levels set and utilized by HUD and the State for most housing programs.

Commute Relationships and Trends

This section provides a brief summary of commute trends and relationships. The major relationship of interest in a nexus analysis is the share of San Diego jobs held by San Diego residents. The major source of information regarding commute relationships is the U.S. Census.

In 2000 there were 450,898 San Diego residents who also worked in San Diego. For the same year, SANDAG reports there were a total of 777,679 jobs. It can then be concluded that San Diego residents held 58% of the total jobs in San Diego.

It is important to recognize that the above relationship does not necessarily represent the demand for housing in San Diego. Taken to the extreme, one can hypothesize a city with very few workers living in it because there is very little housing (for example, City of Industry in the Los Angeles region, or until recent years, Emeryville in the San Francisco area), or because the housing is very expensive.

It should also be noted that even if housing were available and affordable, it is unlikely that 100% of people would live and work in the same city. The choice of where one lives depends on many additional factors (schools, style of housing, types of amenities, and local services, etc.) as well as where one works.

Housing

At the beginning of this section, we examined employment and determined from SANDAG historical data that there were 103,878 jobs gained over the decade. This section provides a brief summary of selected characteristics of the housing market that affect the ability of worker families to find housing in San Diego. This section also examines growth in housing units in San Diego to meet the demand of new worker households.

Housing Production

SANDAG data indicates that from 1990 through 2001, 47,414 net new units were added to the City over the 12-year period. As shown in Table II-2 annual building activity varied over the decade. The high year was 1990 when 6,921 new units were added and the low year was 1995 when only 2,233 new units were added. On average, 3,951 units were constructed annually during the period

As noted earlier, during this same time frame, SANDAG estimates that 103,878 new jobs were created in San Diego. With approximately 1.66 workers per worker household, 103,878 new jobs can be equated to 62,577 households demanding housing somewhere within commuting distance to a job in San Diego. Since San Diego added 41,015 net new units over the same ten-year period, we can say that of the total new units in demand, the City production was deficient by more than 20,000 units to accommodate all of the new worker households. Other ways of expressing the relationship are indicated below.

1990-1999	
Increase in Jobs (from Table II-1)	103,878
Increase in Worker Households (New Units in Demand) @ 1.66	62,577
New Residential Units Built in San Diego (from Table II-2)	41,015
Relationship of New Housing Units to New Worker Households	0.66:1
Deficit for 1:1 ratio	(21,562)

In an evaluation such as the one above, it is important to note that housing demand generated by new employment is not equivalent to total housing demand. Each community experiences demand for its housing by people who work in other jurisdictions as well.

Finally, there is a share of total demand attributable to non-working households. There is some retirement and second home demand in San Diego, attributable to people who previously lived

elsewhere. However, local demographic dynamics are more important. Every time a worker in a household leaves the labor market, such as upon retirement, if the household remains in the same housing unit, the unit is removed from the pool of units for working households, thus resulting in demand for a new unit even though there is no employment growth. As the city's population ages, this is not an insignificant phenomenon.

Housing Production by Affordability Level

The discussion of housing demand by worker households and housing production thus far has been without consideration of affordability.

SANDAG and the City of San Diego provided information on total residential units added to the inventory over the past 12 years. Data on affordable units produced by the City of San Diego is available for the period between 1999-2004. This data estimates that 1,869 deed-restricted affordable units have been or will be constructed over the 5-year period, or roughly 9% of the housing production in San Diego. (Table II-2)

The above analysis and discussion demonstrates that despite the notable accomplishments of the City of San Diego in the production of affordable housing, production of deed restricted affordable units still represents a narrow percentage of total units. Since households at 150% of median income still cannot afford to purchase the minimal price new units that are being produced in the market, affordable housing production has not come close to keeping pace with affordable unit demand.

Future Projections

The jobs housing nexus relationship in support of requiring new workspaces to contribute to new housing is based on the assumption that current trends and relationships in San Diego will continue. In this context, projections of jobs, and new workers households and housing production are reviewed. The methodology for calculating the impact does not, however, rely on any specific set of projections for employment and housing growth. (See Section III.)

Employment Projections - SANDAG

SANDAG provides projection series of employment for the entire San Diego region. The most recent available is *SANDAG 2030 Cities/County Forecast* issued in February 2004. Employment projections for the San Diego jurisdictional boundary are estimated as follows:

Year	Total Jobs
2000	777,600
2010	866,059
Total Increase	88,459

The SANDAG projection for the 2000 to 2010 time period envisions job growth at a slower pace than occurred during the 1990's decade (11% growth over the current decade vs. 15% growth over the previous decade). To a large extent this is due to the city becoming built out with greater development opportunities located outside the city limits.

Jobs and Housing Projection Relationships

The SANDAG projections for residential construction in San Diego hold that 50,307 new units will be added. This may be compared to the job growth and new housing demand associated with job growth at 1.66 workers per worker household, which would be 53,289 new units (88,489 jobs divided by 1.66). At this rate San Diego would produce 0.94 new housing units for each new worker household. Again, these figures are without consideration to affordability.

TABLE II-1
JOB GROWTH, 1990 - 2000
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO

Total Jobs
City of San Diego

	1990[1]	2000[2]	Job Growth	% Change
Agriculture & Mining	3,731	1,368	(2,363)	-63%
Manufacturing Jobs	87,933	73,166	(14,767)	-17%
Retail Jobs	100,633	110,046	9,413	9%
Service Jobs	196,972	256,370	59,398	30%
Other Jobs[3]	284,453	336,650	52,197	18%
Total	673,722	777,600	103,878	15%

1 SANDAG Regional Employment Inventory 1994

2 SANDAG Employment Estimates for 2000

3 Includes construction; transportation, communications, utilities; self employed and domestic; office (finance, insurance, real estate; and government), including national security

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TABLE II-2
AFFORDABLE UNIT PRODUCTION
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO

NET INCREASE IN HOUSING UNITS 1990-2001[1]

Year	Total
1990	6,921
1991	4,860
1992	4,570
1993	3,213
1994	2,912
1995	2,233
1996	2,394
1997	3,362
1998	5,646
1999	4,904
2000	2,447
2001	3,952
Total	**47,414**
Annual Avg (12 years)	**3,951**

TOTAL UNITS BY AFFORDABILITY LEVEL, 1999-2004[2]

Affordability Level	Total Affordable	
	Units	% Share
Very Low: < 50% Median Income	853	46%
Low: 50 - 80% Median Income	830	44%
Moderate: 80 - 120% Median Income	186	10%
Total Affordable Units Constructed	**1,869**	**100%**
Annual Average	**374**	

Affordable Units as Share of Average Housing Unit Production Rate[3]	**9%**

[1] Source: SANDAG 2003, Self-Certification Report to the Legislature, local building Departments, California Department of Finance. Shows construction of housing units net of demolitions (net increase) Data for 2000 and 2001 from San Diego Housing Commission.

[2] Affordable unit count is based on completed and pipeline units included in the Manager's report dated July 31, 2002 regarding the status of the City's Comprehensive Affordable Housing Strategy. Unit count includes only those completed by Affordable Housing Working group agencies including the Redevelopment Agency, the Centre City Development Corporation, the Southeastern Economic Development Corporation, and the San Diego Housing Commission. Does not include market rate units which may be affordable

[3] Based on annual average affordable units constructed 1999-2004 and annual average net increase in housing units 1990-2001.

TABLE II-3
HISTORICAL RELATIONSHIP: EMPLOYMENT GROWTH, RESIDENTIAL UNIT DEMAND
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO

SANDAG HISTORICAL DATA	Jobs
Job Growth - Per SANDAG [1]	
1990	673,722
2000	777,600
Increase	103,878
Worker Households @ 1.66	62,577
Growth in Households/Housing Units - Per SANDAG [2]	
New Units 1990 - 2000	41,015
Relationship Housing Units to New Worker Households	0.66 :1
Deficit for 1:1 Ratio	(21,562)

[1] SANDAG 2030 Cities/County Forecast, 1994 Regional Employment Inventory

[2] See Table II-2

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TABLE II-4
PROJECTION: EMPLOYMENT GROWTH, RESIDENTIAL UNIT DEMAND
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO

SANDAG PROJECTIONS

Projected Job Growth - Per SANDAG [1]		
2000	777,600	
2010	866,059	
Increase	88,459	Jobs
Worker Households @ 1.66	53,289	Worker Households
Projected Households/Housing Units - Per SANDAG [1]		
2000	469,689	
2010	519,996	
Increase	50,307	Housing Units
Relationship Housing Units to New Worker Households	0.94:1	
Deficit for 1:1 Ratio	(2,982)	

[1] SANDAG 2030 Cities/County Forecast

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SECTION III – MICRO ECONOMIC JOBS HOUSING ANALYSIS

This section presents a summary of the analysis of the linkage between seven types of workplace buildings and the estimated number of worker households in the income categories that will, on average, be employed within those buildings. This section should not be read or reproduced without the narrative and analysis presented in the previous sections.

Analysis Approach and Framework

The micro analysis establishes the jobs housing linkages for individual building types or land use activities. This section quantifies the connection, drawing from the relationships described in Section II, between employment growth in San Diego and affordable housing demand.

The analysis approach is to examine the employment associated with the development of 100,000 square foot building modules. Then, through a series of linkage steps, the number of employees is converted to households and housing units by affordability level. The findings are expressed in terms of numbers of households related to building area. In the final step, we convert the numbers of households for 100,000 square foot buildings back to the per square foot level.

The building types or land use activities addressed in the analysis are:

- Office
- Hotel
- Retail/Entertainment
- Hospital/Medical
- Manufacturing/Industrial
- Warehousing/Storage
- Educational

Section II presented information on the income categories addressed in this analysis. For a four person household, these income levels are:

- Median Income - $59,900
- Very Low Income – Under 50% of Median (Up to $31,900)
- Low Income – 50% to 80% of Median (Up to $51,050)
- Moderate Income – 80% to 120% of Median (Up to $71,900)
- "Workforce" – 120% to 150% of Median (Up to $89,900)

The analysis is conducted using a computerized model that KMA has developed for application in many other jurisdictions for which the firm has conducted similar analyses. The model inputs are all local data to the extent possible, and are fully documented.

Analysis Steps

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

Step 1 – Estimate of Total New Employees

The first step in Table III-1 identifies the total number of direct employees who will work at or in the building type being analyzed. Employment density factors are used to make the conversion. The density factors used in this analysis are based on KMA experience and researched sources.

- *Office* – 250 square feet per employee. As previously indicated, average office density is usually found in the range of 200 to 300 square feet per employee depending on the character of the office activity (corporate headquarters vs. back office to illustrate extremes). The average is based on gross building area and takes into account the lobby, corridors, restrooms, etc.

- *Hotel* – At one employee per room and 500 square feet per hotel room, or 500 square feet per employee. This rate covers a cross section of hotel types from lower service hotels where rooms may be smaller than 500 sq. ft. to higher service convention hotels where average room size (inclusive of the meeting space, etc.) is larger but the number of employees per room is higher. Also covers restaurant, bar and other food service space.

- *Retail/Entertainment* – 350 square feet per employee. This category covers a broad range of experience from high service restaurants where densities are far greater to some retail uses, such as furniture stores, where densities are far lower.

- *Hospital/Medical* – 300 square feet per employee. This building type includes a range of facilities from specialized care facilities where densities are lower to outpatient care centers where hospital beds and living quarters are not present, and employment densities are higher.

- *Manufacturing/Industrial* – 500 square feet per employee. Manufacturing employment densities are variable and depend on the nature of the manufacturing activity. This classification uses an aggregate density scaled to industries and uses that are appropriate for the San Diego economy including industrial parks, general light industrial

uses, research and development, biotech manufacturing, machinery, electrical equipment, defense manufacturing, and transportation equipment.

- *Warehousing/Storage* – 2,000 square feet per employee. This category covers a broad range of facility types incorporating higher employment density facilities engaged in wholesale trade to transportation and storage facilities that tend to have lower employment densities.

- *Educational* – 700 square feet per employee. This figure covers a range of facilities from colleges to elementary schools to training facilities. This average includes all the various components of an educational facility such as classrooms, front office, gymnasiums, etc.

All density factors are averages and individual uses can be expected to be fairly divergent from the average from time to time. (An ordinance variance provision usually addresses the possibility of a building that is so divergent from the average so as to need special treatment.)

For ease of analysis and understanding, KMA conducted the analysis on prototype buildings at 100,000 square feet. We have used this size building in order to count jobs and housing units in whole numbers that can be readily communicated and understood. At the conclusion of the analysis, the findings are divided by building size to express the linkages per square foot, which are very small fractions of housing units.

Based on the density factors outlined above, the number of employees in our hypothetical 100,000 square foot buildings follows: the office will house 400 employees; the hotel 200 employees, the retail 286 employees; hospital/medical 333 employees; manufacturing / industrial 200 employees; warehousing/storage 50 employees; and educational uses 143 employees.

Step 2 – Adjustment for Changing Industries

This step is an adjustment to take into account any declines, changes and shifts within all sectors of the local economy and to recognize that new space is not always 100% equivalent to net new employees. As discussed in Section II, San Diego, in the 1990's, decade experienced expanding employment across all industry sectors with the exception of manufacturing. The defense and transportation manufacturing sector suffered heavy job losses in connection with defense spending cuts during the 1990's. As a result, some new jobs in office buildings, for example, were taken by workers who lost their jobs in manufacturing and thus already had local housing. However, this trend is not expected to continue into the foreseeable future given the expansion in defense spending. For this analysis, a 5% adjustment is utilized to recognize the possibility of future minor declines and other internal economic adjustments.

Step 3 – Adjustment from Employees to Employee Households

This step (Table III-1) converts the number of employees to the number of employee households that will work at or in the building type being analyzed. This step recognizes that there is, on average, more than one worker per household, and thus the number of housing units in demand for new workers must be reduced. As noted in Section II, the workers per worker household ratio has eliminated from the equation all non-working households, such as retired persons, students, and those on public assistance. The San Diego County average of 1.66 workers per worker households is used in the analysis.

Step 4 – Occupational Distribution of Employees

The occupational breakdown of employees is the first step to arriving at income level. Using the 2002 National Industry-Specific Occupational Estimates, a cross matrix of "industries" and occupations, produced by the Bureau of Labor Statistics (BLS), we are able to estimate the occupational composition of employees in the seven types of buildings. The industrial mix for each building type is designed to be consistent with use categories described in Section 131.0112 of the City of San Diego Zoning Code. The occupations that reflect the expected mix of activities in the new buildings are presented in Appendix Tables 1, 3, 5, 7, 9, 11, and 13.

- Office buildings "industrial" mix has to be tailored to reflect the types of activities attracted to office space in San Diego. These industries represent a broad mix of professional service activities including business and financial operations, insurance, architecture and engineering, computer and mathematical, legal, management, healthcare, and sales. Office and administrative support occupations (i.e., clerical) comprise 35% of all office related employment.

- Hotels employ workers primarily from three main occupation categories: building and grounds cleaning and maintenance (maid service, etc.), food preparation and serving related, and office and administrative support, which together make up 77% of hotel workers. Other hotel occupations include personal care, management, sales, maintenance and repair, production, and transportation.

- Retail employment is dominated by three main occupation groups: sales (28%), food preparation and serving (24%), and office and administrative support (14%). These three occupations together account for 66% of retail workers. The remaining 34% of retail workers are in occupations that include transportation, maintenance, management, and production.

- Hospital/Medical employment is concentrated in healthcare practitioner, technical occupations, and healthcare support occupations, which account for 63% of employment. Office and administrative support occupations represent an additional 13%

of employment. Management, social services, food service, maintenance, and other health care occupations together make up the remaining 24% of the total.

- Manufacturing/Industrial buildings "industrial" mix was tailored to the types of firms active in the San Diego region. A subset of manufacturing is the research and development activities related to manufactured products. Employment in these industries is a mix of professional occupations (34%), production occupations (40%), and other occupations that support the activities at the manufacturing facility (26%) including office and administrative, maintenance and repair, and related industrial occupations.

- Warehousing/Storage buildings "industrial" mix was tailored to represent both wholesalers and pure transportation and storage facilities. Primary occupations include office and administrative support (25%), sales and related occupations (22%), and transportation and material moving occupations (23%). The remaining 30% of employment is a mix of management, maintenance, production, business and financial, and other related occupations.

- Educational employment is concentrated in education, training, and library occupations (59%). The other 40% of employees are a mix of management, office and administrative, food service, maintenance, and other education related occupations.

The numbers in Step #4 (Table III-1) indicate both the percentage of total employee households and the number of employee households in our hypothetical 100,000 square foot buildings.

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

In this step, occupation is translated to income based on recent San Diego County wage and salary information for the occupations associated with each building type. The wage and salary information indicated in Appendix Tables 2, 4, 6, 8, 10, 12, and 14 provided the income inputs to the model. Service workers in office buildings, for example, were assigned different income levels than service workers in hotels. This step in the analysis calculates the number of employee households that fall into each income category for each size household.

Individual *employee* income data was used to calculate the number of *households* that fall into these income categories by assuming that multiple earner households are, on average, formed of individuals with similar incomes. Employee households not falling into one of the major occupation categories per Appendix Tables 2, 4, 6, 8, 10, 12, and 14 were assumed to have the same income distribution as the major occupation categories.

See Appendix B for more information on Steps #5, #6, and #7.

Step 6 - Estimate of Household Size Distribution

In this step, household size distribution is input into the model in order to estimate the income and household size combinations that meet the income definitions established by HUD, as used by the State and the City. The household size distribution utilized in the analysis is that of San Diego County since the workers are more representative of the larger universe (the County) than the City of San Diego.

Step 7 - Estimate of Households that meet HUD Size and Income Criteria

For this step we had to build a matrix of household size and income to establish probability factors for the two criteria in combination. For each occupational group a probability factor was calculated for each of HUD's income and household size levels. This step is performed for each occupational category and multiplied by the number of households.

Table III-1A shows the result after completing Steps #5, #6, and #7. The calculated numbers of households that meet HUD size and income criteria shown in Table III-1A are for the Very Low Income or under 50% of Median Income Category. The methodology is repeated for each income tier (See Table III-2). At the end of these steps, for the under 50% of Median Income category we have counted office, hotel, retail, hospital, manufacturing, warehousing, and educational workers in our buildings of 100,000 square feet.

Summary by Income Level

Table III-2 indicates the results of the analysis for the other three additional income categories for the seven prototypical 100,000 square foot buildings. The table presents the number of households in each affordability category and the total number up to 150% of median.

The table below summarizes the percentage of total new worker households that fall into each income category. As indicated, nearly all retail and hotel worker households are below the 150% of median income level. Office worker households have the highest incomes with only 3% of worker households below 50% of median and 41% earning greater than 150% of median. Hospital, manufacturing, warehouse, and educational worker households are in between these extremes with few workers in the very low-income category, but with a large share of employees in the low, moderate, and "workforce" income categories.

	Percent of Worker Households by Income Category				
	Under 50%	50% to 80%	80% to 120%	120% to 150%	Total
Office	3%	20%	22%	15%	60%
Hotel	28%	51%	10%	4%	93%
Retail / Entertainment	26%	44%	17%	6%	93%
Hospital / Medical	6%	26%	20%	12%	64%
Manufacturing / Industrial	8%	26%	20%	12%	66%
Warehousing / Storage	10%	30%	25%	13%	78%
Educational	5%	22%	19%	15%	61%

Adjustment for Commute Relationship

Table III-3 indicates the results of the analysis both before and after an adjustment for commute relationship. As discussed in Section II, residents of San Diego hold 58% of the jobs in San Diego. If the existing commute relationship were to hold for new employee households, 58% would be expected to reside in San Diego. The estimates of households for each income category in a prototypical 100,000 square foot building are adjusted downwards by this commute factor.

Summary by Square Foot Building Area

The analysis thus far has worked with prototypical buildings of 100,000 square feet. In this step, the conclusions are translated to the per square foot level and expressed as coefficients. These coefficients state the portion of a household, or housing unit, by affordability level for which each square foot of building area is associated. (See Table III-4).

This is the summary of the housing nexus analysis, or the linkage from buildings to employees, to housing demand by income level. We believe that it is a conservative approximation (understates at the low end) of the households by income/affordability level associated with these building types.

TABLE III-1
NET NEW HOUSEHOLDS AND OCCUPATION DISTRIBUTION BY BUILDING TYPE
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

Prototypical 100,000 Sq.Ft. Buildings

	OFFICE	HOTEL	RETAIL / ENTRTNMNT	HOSPITAL / MEDICAL	MANUFACTURING / INDUSTRIAL	WAREHOUSING / STORAGE	EDUCATIONAL
Step 1 - Estimate of Employees per 100,000 Sq.Ft.							
Employee Density (Sq.ft. per employee)	250	500 *	350	300	500	2000	700
Number of Employees	400	200	286	333	200	50	143
Step 2 - Adjustment for Changing Industries Replacement Factor (5%)	380	190	271	317	190	48	136
Step 3 - Adjustment for Number of Households (1.66)	229	115	164	191	115	29	82
Step 4 - Occupation Distribution[1]							
Management Occupations	9.0%	5.0%	3.5%	3.7%	7.9%	6.7%	4.7%
Business and Financial Operations	10.4%	1.2%	1.0%	1.4%	5.0%	3.0%	1.5%
Computer and Mathematical	8.0%	0.1%	0.5%	0.7%	5.2%	2.6%	1.2%
Architecture and Engineering	4.2%	0.0%	0.3%	0.1%	11.7%	1.3%	0.2%
Life, Physical, and Social Science	1.2%	0.0%	0.1%	0.6%	4.6%	0.3%	1.2%
Community and Social Services	0.3%	0.0%	0.0%	3.2%	0.1%	0.0%	2.1%
Legal	3.2%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
Education, Training, and Library	0.2%	0.0%	0.1%	0.5%	0.2%	0.0%	58.6%
Arts, Design, Entertainment, Sports, and Media	1.8%	0.4%	1.2%	0.2%	0.7%	0.8%	0.9%
Healthcare Practitioners and Technical	7.7%	0.0%	1.2%	43.6%	0.5%	0.3%	2.0%
Healthcare Support	3.9%	0.2%	0.5%	18.9%	0.1%	0.0%	0.3%
Protective Service	0.3%	2.0%	0.5%	0.7%	0.3%	0.1%	1.0%
Food Preparation and Serving Related	0.3%	29.1%	23.7%	4.8%	0.1%	0.3%	4.2%
Building and Grounds Cleaning and Maint.	1.6%	30.2%	5.0%	4.6%	0.6%	0.6%	4.8%
Personal Care and Service	0.4%	4.1%	1.8%	1.1%	0.0%	0.0%	1.5%
Sales and Related	6.4%	2.4%	27.6%	0.2%	2.6%	21.8%	0.3%
Office and Administrative Support	35.5%	17.2%	13.8%	13.2%	11.4%	24.7%	10.8%
Farming, Fishing, and Forestry	0.0%	0.0%	0.2%	0.0%	0.1%	0.6%	0.1%
Construction and Extraction	0.5%	0.2%	0.8%	0.2%	1.2%	0.5%	0.5%
Installation, Maintenance, and Repair	3.0%	4.0%	4.5%	1.0%	3.9%	7.0%	1.3%
Production	1.0%	2.3%	4.4%	0.9%	39.5%	6.7%	0.2%
Transportation and Material Moving	0.7%	1.6%	9.1%	0.4%	4.2%	22.6%	2.8%
Totals	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Management Occupations	20.6	5.7	5.8	7.2	9.0	1.9	3.8
Business and Financial Operations	23.8	1.4	1.7	2.7	5.7	0.9	1.2
Computer and Mathematical	18.4	0.2	0.9	1.3	5.9	0.8	1.0
Architecture and Engineering	9.7	0.0	0.5	0.1	13.4	0.4	0.2
Life, Physical, and Social Science	2.7	0.0	0.2	1.1	5.3	0.1	1.0
Community and Social Services	0.8	0.0	0.0	6.0	0.1	0.0	1.7
Legal	7.4	0.0	0.1	0.0	0.1	0.0	0.0
Education, Training, and Library	0.5	0.0	0.2	0.9	0.2	0.0	48.0
Arts, Design, Entertainment, Sports, and Media	4.1	0.4	2.0	0.3	0.8	0.2	0.7
Healthcare Practitioners and Technical	17.7	0.0	2.0	83.4	0.5	0.1	1.6
Healthcare Support	9.0	0.2	0.8	36.2	0.2	0.0	0.3
Protective Service	0.8	2.3	0.8	1.3	0.3	0.0	0.8
Food Preparation and Serving Related	0.7	33.3	38.8	9.2	0.1	0.1	3.4
Building and Grounds Cleaning and Maint.	3.6	34.6	8.2	8.8	0.7	0.2	3.9
Personal Care and Service	1.0	4.7	3.0	2.1	0.0	0.0	1.2
Sales and Related	14.8	2.8	45.2	0.4	3.0	6.2	0.2
Office and Administrative Support	81.6	19.7	22.6	25.3	13.1	7.1	8.8
Farming, Fishing, and Forestry	0.1	0.0	0.2	0.0	0.1	0.2	0.0
Construction and Extraction	1.2	0.2	1.4	0.5	1.4	0.1	0.4
Installation, Maintenance, and Repair	7.0	4.6	7.4	2.0	4.5	2.0	1.1
Production	2.3	2.6	7.2	1.8	45.3	1.9	0.2
Transportation and Material Moving	1.7	1.8	15.0	0.7	4.9	6.5	2.3
Totals	**229**	**115**	**164**	**191**	**115**	**29**	**82**

* 1 employee per room @ 500 sq ft./room

[1] See Appendix Tables 1 through 14 for additional information from which the percentage distributions were derived.

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Filename: 19035.005\SD-Main Model; III-1 Households; 12/2/2004; dd

TABLE III-1A
ESTIMATE OF QUALIFYING HOUSEHOLDS BY INCOME LEVEL
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

Prototypical 100,000 Sq.Ft. Buildings
Analysis for Households Earning Less than 50% Median

	OFFICE	HOTEL	RETAIL / ENTRTNMNT	HOSPITAL / MEDICAL	MANUFACTURING / INDUSTRIAL	WAREHOUSING / STORAGE	EDUCATIONAL
Step 5, 6, & 7 - Households in Major Occupation Categories Earning Less than 50% Median [1]							
Management	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Business and Financial Operations	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Architecture and Engineering	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Life, Physical and Social Science	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Community and Social Services	0.00	0.00	0.00	0.27	0.00	0.00	0.00
Legal	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Education Training and Library	0.00	0.00	0.00	0.00	0.00	0.00	1.08
Arts, Design, Entertainment, Sports, and Media	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Healthcare Support	0.46	0.00	0.00	3.83	0.00	0.00	0.00
Protective Service	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Food Preparation and Serving Related	0.00	14.95	17.86	3.19	0.00	0.00	0.98
Building Grounds and Maintenance	0.00	10.77	2.11	2.69	0.00	0.00	0.94
Personal Care and Service	0.00	1.39	0.00	0.00	0.00	0.00	0.00
Sales and Related	1.49	0.00	10.95	0.00	0.00	0.28	0.00
Office and Admin	4.09	1.59	2.11	1.52	0.70	0.61	0.37
Farm, Fishing, and Forestry	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Construction and Extraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Installation Maintenance and Repair	0.11	0.15	0.11	0.00	0.06	0.01	0.00
Production	0.00	0.00	1.55	0.00	6.27	0.31	0.00
Transportation and Material Moving	0.00	0.00	4.13	0.00	1.18	1.33	0.00
Total HH earning less than 50% Median - Major Occupations	6.18	28.86	38.82	11.49	8.21	2.54	3.37
HH earning less than 50% Median - "all other" occupations	0.57	3.39	3.56	0.99	0.58	0.20	0.69
Total Households Earning Less than 50% of Median	**6.8**	**32.3**	**42.4**	**12.5**	**8.8**	**2.7**	**4.1**

[1] See Appendix Tables 1 through 14 for additional information on Major Occupation Categories

Prepared by: Keyser Marston Associates, Inc.
Filename: 19035.008\SD-Main Model; III-1A Households; 12/3/2004; dd

TABLE III-2
WORKER HOUSEHOLDS BY AFFORDABILITY LEVEL
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

Analysis for Households Before Commute Adjustment

Household Income Level	OFFICE	HOTEL	RETAIL / ENTRTNMNT	HOSPITAL / MEDICAL	MANUFACTURING / INDUSTRIAL	WAREHOUSING / STORAGE	EDUCATIONAL
Under 50% Median Income	6.76	32.25	42.38	12.48	8.79	2.75	4.07
50% to 80% Median Income	45.08	58.77	72.54	49.33	30.24	8.60	18.26
80% to 120% Median Income	50.51	12.04	28.04	37.57	23.30	7.09	15.61
120% to 150% Median Income	33.85	4.83	10.00	22.75	14.20	3.72	12.32
Total	**136.19**	**107.89**	**152.97**	**122.13**	**76.53**	**22.16**	**50.27**
Total New Worker Households	229	115	164	191	115	29	82
Under 50% Median Income	2.9%	28.1%	25.9%	6.5%	7.7%	9.6%	5.0%
50% to 80% Median Income	19.6%	51.2%	44.3%	25.8%	26.4%	30.0%	22.3%
80% to 120% Median Income	22.0%	10.5%	17.1%	19.6%	20.3%	24.7%	19.1%
120% to 150% Median Income	14.8%	4.2%	6.1%	11.9%	12.4%	13.0%	15.0%
Total	**59%**	**94%**	**93%**	**64%**	**67%**	**77%**	**61%**

Notes:
[1] Per 100,000 sq. ft. of building area. Before commute adjustment.

Prepared by: Keyser Marston Associates, Inc.
Filename: 19035.008\SD-Main Model; III-2 Affordability; 12/2/2004; dd

TABLE III-3
WORKER HOUSEHOLDS BY AFFORDABILITY LEVEL WITH COMMUTE
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

PROTOTYPICAL 100,000 SQ. FT. BUILDING
BEFORE COMMUTE ADJUSTMENT

INCOME CATEGORY	Number of Households[1]						
Household Income Level	OFFICE	HOTEL	RETAIL / ENTRTNMNT	HOSPITAL / MEDICAL	MANUFACTURING / INDUSTRIAL	WAREHOUSING / STORAGE	EDUCATIONAL
Under 50% Median Income	6.76	32.25	42.38	12.48	8.79	2.75	4.07
50% to 80% Median Income	45.08	58.77	72.54	49.33	30.24	8.60	18.26
80% to 120% Median Income	50.51	12.04	28.04	37.57	23.30	7.09	15.61
120% to 150% Median Income	33.85	4.83	10.00	22.75	14.20	3.72	12.32
Total	**136.19**	**107.89**	**152.97**	**122.13**	**76.53**	**22.16**	**50.27**

AFTER 58.00% Commute Adjustment

INCOME CATEGORY	Number of Households[1]						
	OFFICE	HOTEL	RETAIL / ENTRTNMNT	HOSPITAL / MEDICAL	MANUFACTURING / INDUSTRIAL	WAREHOUSING / STORAGE	EDUCATIONAL
Under 50% Median Income	3.92	18.70	24.57	7.24	5.10	1.59	2.36
50% to 80% Median Income	26.14	34.08	42.06	28.60	17.53	4.99	10.59
80% to 120% Median Income	29.28	6.98	16.26	21.78	13.51	4.11	9.05
120% to 150% Median Income	19.62	2.80	5.80	13.19	8.23	2.16	7.15
Total	**78.96**	**62.56**	**88.69**	**70.81**	**44.37**	**12.85**	**29.15**

[1] Per 100,000 sq. ft. of building area

Prepared by: Keyser Marston Associates, Inc.
Filename: 19035.008\SD-Main Model; III-3 Model Summary; 12/2/2004; dd

TABLE III-4
HOUSING DEMAND NEXUS FACTORS PER SQ.FT. OF BUILDING AREA
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

WITH COMMUTE ADJUSTMENT AT 58.00%

	Number of Housing Units per Sq.Ft. of Building Area[1]						
	OFFICE	HOTEL	RETAIL / ENTRTNMNT	HOSPITAL / MEDICAL	MANUFACTURING / INDUSTRIAL	WAREHOUSING / STORAGE	EDUCATIONAL
Under 50% Median Income	0.00003917	0.00018699	0.00024572	0.00007237	0.00005095	0.00001593	0.00002358
50% to 80% Median Income	0.00026136	0.00034075	0.00042060	0.00028600	0.00017531	0.00004988	0.00010589
80% to 120% Median Income	0.00029284	0.00006983	0.00016258	0.00021781	0.00013512	0.00004110	0.00009053
120% to 150% Median Income	0.00019624	0.00002799	0.00005799	0.00013192	0.00008234	0.00002159	0.00007146
Total	**0.00078961**	**0.00062556**	**0.00088689**	**0.00070810**	**0.00044372**	**0.00012849**	**0.00029146**

[1]Calculated by dividing number of household in bottom left portion of Table III-3 by 100,000 to convert households per 100,000 sq. ft. building to households per 1 sq. ft. of building.

SECTION IV - TOTAL HOUSING NEXUS COSTS

This section merges the conclusions of the previous section on the number of households in the various affordability categories associated with each building type with the cost of assistance to make housing units affordable to the households. The previous section quantified the number of households by affordability level associated with the seven building types in San Diego. This section puts a cost on each unit at each affordability level to produce the "total nexus cost."

A key component of the analysis is the size of the gap between what households can afford and the cost of producing additional housing in San Diego. The analysis uses a standard methodology to determine what households can afford and compares that to the cost of developing housing.

The analysis is conducted for the four affordability levels addressed in this assignment: Very Low Income (below 50% median) Low Income (50% to 80% median), Moderate Income (80% to 120% median) and Workforce Income (120% to 150% median). The assumption is that the two lower categories would be housed in rental apartment units and the two more middle income categories would be housed in ownership units.

Income and Household Size Assumptions

Income definitions for housing programs are established by HUD and issued by the State Department of Housing and Community Development (HCD), for each county (Area Median Income or AMI) for varying household sizes, as presented in Section II, and summarized in Table IV-1. In order to determine the affordability gap, there is a need to match a household at each income level with and unit type and size according to governmental regulations and policies. The prototypical project for both rental and ownership units represent the lower end of the average range for what the private sector is currently developing in San Diego at this time. The average three person household is assumed to be accommodated in a two bedroom unit.

The unit type for the two lower income categories is a garden style apartment project, wood frame construction, built at a density of about 25 units per acre. The two-bedroom unit is 950 square feet. Surface parking is at 2.3 spaces per unit.

The ownership product is a stacked flat developed at 40 units per acre. The construction is wood frame over podium parking, at 2.0 spaces per unit. Consistent with market averages, this two-bedroom unit is 1,200 square feet.

The income level at the top end of the income category is used in the analysis. This is a conservative assumption which produces a lower affordability gap average than reality since not all households have income at the top end of the range. For example, in the moderate income

category which is 80% to 120% of median, the analysis is run at 120% when clearly most household in the category have incomes of less than 120% of Area Median Income.

Development Costs

The cost of developing new residential units in San Diego was assembled from a number of sources. KMA, in its services to the Housing Commission Inclusionary Program, identified a range of residential development prototypes and prepared full development cost schedules for each. The least expensive prototype for rental and ownership projects were updated and modified for the purposes of this analysis. In addition, KMA reviewed current data on rent levels of new projects and sales activity of attached ownership projects (condominiums, flats, townhomes, etc.).

Both products represent the lower end of the current experience range in the City of San Diego, with the exception of the South Bay area, which has different economic conditions from the rest of San Diego.

Total development costs include direct construction costs, a host of indirect costs (such as permits and fees, design and engineering, marketing and leasing or sales costs), financing costs and land costs. Detailed information is provided at the end of this section.

Total development costs per unit for the Garden Apartment prototype are as follows:

Land	$35,000
Direct Construction	$75,540
Indirects	28,140
Financing	9,200
Total (rounded)	$148,000

For purposes of the Very Low Income (under 50% median) category, the assumption is that the Federal Low Income Housing Tax Credit program, coupled with special financing, would be available. These two programs substantially reduce the affordability gap by providing an equity source from the tax credits (nearly $50,000 per unit) and lower cost financing. Use of these programs would, however, mandate that the construction conform to Prevailing Wage requirements, thus adding cost. In addition there are some added indirect costs such as tax credit syndication costs. With these additions, total development costs per unit are approximately $173,000. See Table IV-3 for more information on cost items.

Total development costs per ownership unit for the stacked flat prototype are as follows:

Land	$60,000
Direct Construction	162,000
Indirects and Financing	73,000
Developer Profit	35,000
Total	$330,000

See Tables IV-4 and IV-5 for more information.

Affordable Rents, Unit Values, and Sales Prices

The next step to determining the affordability gap is to identify the maximum rent level or sales price affordable to each of the four income categories. This step is basically done via formula per federal and state standards and local policies. The key elements of the analysis are:

- A three person household in a two bedroom unit (therefore using the income definition for a three person household).
- For rental units, 30% of monthly income is assumed available for rent and utilities. The monthly utility allowance is established by the local Housing Commission.
- For ownership units, 35% of monthly income (local policy) is assumed available for mortgage, utilities, property taxes, insurance and homeowners association.
- For ownership units, the mortgage assumption is 5% down payment, and 6.5% mortgage rate, on a 30-year fixed mortgage.

Rental Units

The affordable rent calculations for the very low and low income households are provided in Table IV-6. The three person household at very low income can afford $684 per month rent and the same size household at low income, $1,115 per month rent.

Rental income must be converted to a value supported per unit for affordability gap purposes. The first step is to establish net operating income per unit, or income after other miscellaneous income (laundry, etc.) and adjustment for normal vacancy and operating expenses. In the very low income unit, the income stream covers the operating costs with $3,730 remaining. In the low income unit, the net operating income is $8,640 per unit.

In Table IV-7 the analysis to establish value supported for each unit is provided. The very low income unit is assumed within a project that qualifies for the federal low income tax credit

program and also low interest financing. As a result, the total investment supported, including the tax credit value of $49,000 per unit, is $99,000 per unit.

The low income unit does not qualify for the federal tax credit program. As a result, it cannot have the advantage of the tax credit equity. Total value supported is only slightly higher than the very low income unit, at $102,000 per unit.

The affordability gap is the difference between the value supported and the cost of development. The calculations for the two income levels are as follows:

Income Category	Development Cost	Affordable Unit Value/Price	Affordability Gap
Very Low Income (50% AMI)	$173,000	$99,000	$74,000
Low Income (80% AMI)	148,000	102,000	46,000

Ownership Units

A parallel analysis is conducted for ownership units. The value supported, or sales price affordable, is based on a 35% share of income and assumptions with respect to the financing available. The assumptions used in this analysis are 5% down payment, 6.5% interest on a 30-year fixed rate mortgage. In addition, annual homeowners association dues, insurance and utilities as well as property taxes are deducted before the supportable mortgage amount is computed. Table IV-8 summarizes the analysis.

The moderate income household (120% median income) can afford a unit that costs $225,000 and the workforce income household (150% median income) can afford a unit that costs $291,000.

The affordability gaps are the differences between these sales prices afforded and the costs of development, as follows:

Income Category	Development Cost	Affordable Unit Value/Price	Affordability Gap
Moderate Income (120% AMI)	$330,000	$225,000	$105,000
Workforce Income (150% AMI)	330,000	291,000	39,000

For reference, the amount affordable at alternative income levels between 120% and 150% of median are provided in an appendix table.

Total Nexus Costs

The last step in the nexus analysis marries the findings on the numbers of household for each income category associated with each of the seven building types, per the end of Section III, with the affordability gaps.

Table IV-9 summarizes the analysis. The numbers of households associated with each building type by income category, indicated on the left side of the table assume 100,000 square foot buildings. The "Nexus Cost per Square Foot" is the result of the calculation: number of units times the affordability gap, divided by 100,000 sq. ft. to bring the conclusion back to the per square foot level.

Commute Adjustment

The total nexus costs are calculated for the total impact as indicated in the upper portion of the table, and after an adjustment for the fact that only a share of the worker households will seek housing in the City of San Diego. The 2000 Census found that 58% of those who work in the City of San Diego also live in the City of San Diego. With a 58% share, a far lower nexus cost is determined from the analysis, as shown in the lower portion of the table.

The use of the existing commute relationship is subject to discussion. The 58% finding is already a reflection of housing market conditions and affordability constraints. With no intervention or increase in the supply of housing affordable to workers, the percentage will likely decrease further. Some cities view the percentage share as a policy target that reflects the share of new demand that the city would like to accommodate locally. Absent a directive, the existing commute relationship has been utilized.

The total nexus costs for the seven building types, after the commute adjustment, are as follows:

Office	$53.32
Hotel	37.94
Retail/Entertainment	56.86
Hospital/Medical	46.53
Manufacturing/Industrial	29.23
Warehousing/Storage	8.63
Educational	18.91

With or without the commute relationship adjustment, the total nexus cost for each building type is far in excess of any reasonable fee amount likely to be considered.

Conservative Assumptions

The nexus costs are high due to a combination of factors, the principal ones being:

- The high cost of housing in San Diego relative to income levels
- The extent of income categories covered in the analysis, all the way up to 150% of median income and thus the majority of worker households

In establishing the total nexus cost many conservative assumptions were employed in the analysis that result in a total nexus cost that is probably understated. These conservative assumptions include:

- The commute adjustment, or target, assumes that 58% of all new employee households are targeted to be accommodated in San Diego. This is the existing condition already driven by affordability constraints. The City could readily adopt a policy to house more than 58% of its new worker households.

- All affordability gap calculations are made using the top end of the income range. For example, all very low income households are assumed to have incomes at 50% of median, when in fact, many have incomes below 50%. Using the average of mid point of the income range would produce significantly higher affordability gaps and total nexus cost conclusions.

- No Census or other hard data was available enabling a differentiation between the household size composition of office/high tech workers, hotel workers and retail sales people. Anecdotally one can observe that there are probably some significant differences.

- Only direct employees are counted in the analysis. Many indirect employees are also associated with each new workspace. Indirect employees in an office building, for example, include janitors, window washers, landscape maintenance people, delivery personnel, and a whole range of others. Hotels do have many of these workers on staff, but hotels also "contract out" a number of services that are not taken into account in the analysis. The analysis does not employ multipliers. Also construction workers are not included in the analysis.

In summary, many less conservative assumptions could be made that would result in higher linkage costs.

The total nexus cost represents the ceiling, supported by this analysis, for any requirement to be placed on new construction for affordable housing. They represent only maximums and, in no way, should be construed as recommended fee amounts.

Section V will provide materials to assist policy makers in identifying fee levels for San Diego.

TABLE IV-1
SUMMARY OF INCOME DEFINITIONS, 2003
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO

INCOME - UPPER END FOR EACH CATEGORY

Family Size	Very Low Income 50% AMI	Low Income 80% AMI	Moderate Income 120% AMI	Moderate Income 150% AMI
1 Person	$22,350	$35,750	$50,350	$62,900
2 Persons	$25,500	$40,850	$57,500	$71,900
3 Persons	$28,700	$45,950	$64,700	$80,900
4 Persons	$31,900	$51,050	$71,900	$89,900
5 Persons	$34,450	$55,100	$77,650	$97,100

Source: San Diego Housing Commission, based on HUD and HCD, effective April 11, 2003
Prepared by: Keyser Marston Associates, Inc.
Filename: 19035.008\Income Levels; 12/2/2004;lag

TABLE IV-2
RENTAL PROJECT DEVELOPMENT PROFILE
HOUSING IMPACT FEE NEXUS ANALYSIS
SAN DIEGO HOUSING COMMISSION

Product Type		Garden Apartments	
Construction Type		Type V - Wood-frame	
Tenure		Rental	
Site Area		174,000	SF
		4.0	Acres
Number of Stories		2 - 3	Stories
Unit Mix			
	# of Units	Unit Size	
Two Bedroom	100 Units	950	SF
Density		25.0	Units/Acre
Gross Building Area			
Residential Net Building Area		95,000	SF
Common Areas @	5.0%	5,000	SF
Total Gross Building Area (GBA)		100,000	SF
FAR		0.57	
Parking			
Type		Surface	
Number of Parking Spaces		229	Spaces
Parking Ratio (Space/Unit)		2.3	Spaces/Unit

TABLE IV-3
RENTAL PROJECT DEVELOPMENT COSTS
HOUSING IMPACT FEE NEXUS ANALYSIS
SAN DIEGO HOUSING COMMISSION

	BASE CASE (Market and 80% AMI)			LOW INCOME HOUSING TAX CREDITS (50% AMI)		
	Totals	Per Unit	Comments	Totals	Per Unit	Comments
Site Costs:	$3,500,000	$35,000	$20 Per SF of Site Area	$3,500,000	$35,000	$20 Per SF of Site Area
Direct Costs:						
Off-Site Improvements	$0	$0	$0 Per SF of Site Area	$0	$0	$0 Per SF of Site Area
On-Sites/Landscaping	$522,000	$5,220	$3 Per SF of Site Area	$522,000	$5,220	$3 Per SF of Site Area
Shell Construction	$6,500,000	$65,000	$65 Per SF GBA	$6,500,000	$65,000	$65 Per SF GBA
FF&E	$50,000	$550	Allowance	$50,000	$500	Allowance
Pool/Amenities	$122,000	$1,220	Allowance	$122,000	$1,220	Allowance
Parking	$0	$0	Included in On-Sites	$0	$0	Included in On-Sites
Contingency	$360,000	$3,600	5.0% of Above Directs	$360,000	$3,600	5.0% of Above Directs
Subtotal Direct Costs	$7,554,000	$75,540	$76 Per SF GBA	$7,554,000	$75,540	$76 Per SF GBA
Add: Prevailing Wage Impact	$0	$0		$1,501,000	$15,010	20% of Above Directs (excl FF&E)
Subtotal Direct Costs	$7,554,000	$75,540	$76 Per SF GBA	$9,055,000	$90,550	$91 Per SF GBA
Indirect Costs:						
Architecture & Engineering	$378,000	$3,780	5.0% of Directs	$378,000	$3,780	5.0% of Directs
Permits & Fees	$1,700,000	$17,000	$17,000 Per Unit	$1,700,000	$17,000	$17,000 Per Unit
Legal & Accounting	$151,000	$1,510	2.0% of Directs	$151,000	$1,510	2.0% of Directs
Taxes & Insurance	$151,000	$1,510	2.0% of Directs	$151,000	$1,510	2.0% of Directs
Developer Fee	$302,000	$3,020	4.0% of Directs	$1,200,000	$12,000	13.3% of Directs
Marketing/Lease-Up	$50,000	$500	Allowance	$45,000	$450	Allowance
Contingency	$82,000	$820	3.0% of Above Indirects	$109,000	$1,090	3.0% of Above Indirects
Subtotal Indirect Costs	$2,814,000	$28,140	37.3% of Directs	$3,734,000	$37,340	41.2% of Directs
Financing Costs:						
Loan Fees	$528,000	$5,280	7.0% of Directs	$499,000	$4,990	5.5% of Directs
Interest During Construction	$342,000	$3,420	4.5% of Directs	$374,000	$3,740	4.1% of Directs
TCAC/Syndication Costs	$0			$90,000	$900	1.0% of Directs
Operating Lease-Up/Reserves	$50,000	$500	0.7% of Directs	$50,000	$500	0.6% of Directs
Subtotal Financing Costs	$920,000	$9,200	12.2% of Directs	$1,013,000	$10,130	11.2% of Directs
Total Development Costs	**$14,788,000**	**$147,880**	**$148 Per SF GBA**	**$17,302,000**	**$173,020**	**$173 Per SF GBA**
Or Say (Rounded)	$14,788,000			$17,302,000		

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Filename: 19035.008\PROTOTYPE 1_Nexus 2004\12/2/2004;lag

TABLE IV-4
OWNERSHIP PROJECT DEVELOPMENT PROFILE
HOUSING IMPACT FEE NEXUS ANALYSIS
SAN DIEGO HOUSING COMMISSION

Product Type		Stacked Flat
Construction Type		Type V - Wood-frame over parking podium
Tenure		For-Sale
Site Area		43,560 SF
		1.0 Acres
Number of Stories		3 Stories over parking podium
Unit Mix	# of Units	Unit Size
Two Bedroom	45 Units	1,200 SF
Density		45.0 Units/Acre
Gross Building Area (GBA)		
Residential		54,000 SF
Common Areas @	10.0%	6,000 SF
Total Gross Building Area		60,000 SF
FAR		1.38
Parking		
Type		Structured
Parking Ratio - Residential		2.0 Spaces/Unit
Total Number of Spaces		90 Spaces

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TABLE IV-5
OWNERSHIP PROJECT: DEVELOPMENT COSTS
HOUSING IMPACT FEE NEXUS ANALYSIS
SAN DIEGO HOUSING COMMISSION

Project: 45 units
Stacked Flat
See Table IV-4

	Base Case		
	Totals	**Per Unit**	**Comments**
Site Costs	$2,700,000	$60,000	$62 Per SF of Site Area
Direct Costs	$7,300,000	$162,000	$122 Per SF GBA
Indirects and Financing Costs	$3,285,000	$73,000	45% of Directs
Subtotal	$13,285,000	$295,000	$221 Per SF GBA
Developer Profit (12%)	$1,594,000	$35,000	$27 Per SF GBA
Total	**$14,879,000**	**$330,000**	**$248 Per SF GBA**

(1) Direct costs before prevailing wage impact
Prepared by: Keyser Marston Associates, Inc
Filename: 19035.008\PROTOTYPE 5_Nexus 20043;12/2/2004;lag

TABLE IV-6
RENTAL PROJECT: AFFORDABLE RENTS AND UNIT VALUES
HOUSING IMPACT FEE NEXUS ANALYSIS
SAN DIEGO HOUSING COMMISSION

Per Unit Affordable Rent

	Very Low (50% of AMI)	Low (80% of AMI)
Family Size	3	3
Number of Bedrooms	2	2
Household Income	$28,700	$45,950
Income Allocation to Housing	30%	30%
Monthly Housing Cost	$718	$1,149
(Less) Utility Allowance [1]	($34)	($34)
Maximum Monthly Rent	**$684**	**$1,115**

Net Operating Income (NOI) - Project and Per Unit

	Very Low (50% of AMI)		Low (80% of AMI)	
	Total	Per Unit	Total	Per Unit
Units	100	1	100	1
Gross Scheduled Income (GSI)				
Monthly	$68,380	$684	$111,505	$1,115
Annual	$821,000	$8,210	$1,338,000	$13,380
Other Income @$15 / Unit / Mo.	$18,000	$180	$18,000	$180
(Less) Vacancy @ 5%	($41,000)	($410)	($67,000)	($670)
Effective Gross Income (EGI)	$798,000	$7,980	$1,289,000	$12,890
(Less) Operating Expenses	($425,000)	($4,250)	($425,000)	($4,250)
Net Operating Income (NOI)	**$373,000**	**$3,730**	**$864,000**	**$8,640**

[1] Assumes San Diego Housing Commission (SDHC) 2003 utility allowances at $34/month

TABLE IV-7
AFFORDABILITY GAP FOR RENTAL UNITS
HOUSING IMPACT FEE NEXUS ANALYSIS
SAN DIEGO HOUSING COMMISSION

	Very Low Income (50% AMI)		Low Income (80% AMI)	
	Total	Per Unit	Total	Per Unit
Net Operating Income (NOI)	$373,000	$3,730	$864,000	$8,640
Target Return on Investment (Low)	N/A	N/A	8.5%	8.5%
Sources of Funds (Very Low)				
Supportable Debt	$4,760,000	$48,000	N/A	N/A
Market Value of Tax Credits	$4,854,000	$49,000	N/A	N/A
Deferred Developer Fee	$240,000	$2,000	N/A	N/A
Warranted Investment	$9,854,000	$99,000	$10,165,000	$102,000
(Less) Total Development Costs	($17,302,000)	($173,000)	($14,788,000)	($148,000)
Affordability Gap	**($7,448,000)**	**($74,000)**	**($4,623,000)**	**($46,000)**

Prepared by: Keyser Marston Associates, Inc
Filename: 19035.008\PROTOTYPE 1_Nexus 2004\12/2/2004;lag

TABLE IV-8
AFFORDABLE PURCHASE PRICE
HOUSING IMPACT FEE NEXUS ANALYSIS
SAN DIEGO HOUSING COMMISSION

	Moderate (120% of AMI)	Workforce (150% of AMI)
Family Size	3	3
Number of Bedrooms [1]	2	2
Household Income (Rounded)	$64,700	$80,900
Income Allocation to Housing	35.0%	35.0%
Amount Available for Housing	$22,645	$28,315
Annual HOA/Insurance/Utilities [1]	$3,500	$3,500
Tax Rate	1.12%	1.12%
Annual Taxes [2]	$2,520	$3,259
Available for Mortgage	$16,625	$21,556
Interest Rate	6.5%	6.5%
Down Payment	5.0%	5.0%
Closing Costs	2.5%	2.5%
Supportable Mortgage	$219,188	$284,197
Add: Down Payment	$11,250	$14,550
(Less) Closing Costs	($5,625)	($7,275)
Maximum Unit Price (Rounded)	**$225,000**	**$291,000**
Total Development Cost	($330,000)	($330,000)
Affordability Gap	**($105,000)**	**($39,000)**

[1] Gross estimate

[2] Based on affordable unit price Property tax assessment may be based on market value of actual home.

TABLE IV-9
TOTAL HOUSING NEXUS COST
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

BEFORE COMMUTE ADJUSTMENT

INCOME CATEGORY

Household Income Level	Affordability Gap[1]	Nexus Cost Per Sq. Ft. OFFICE	HOTEL	RETAIL / ENTRTNMNT	HOSPITAL / MEDICAL	MANUFACTURING / INDUSTRIAL	WAREHOUSING / STORAGE	EDUCATIONAL
Under 50% Median Income [2]	$74,000	$5.00	$23.87	$31.36	$9.24	$6.50	$2.03	$3.01
50% to 80% Median Income [2]	$46,000	$20.74	$27.03	$33.37	$22.69	$13.91	$3.96	$8.40
80% to 120% Median Income [3]	$105,000	$53.03	$12.65	$29.44	$39.45	$24.47	$7.44	$16.40
120% to 150% Median Income [3]	$39,000	$13.20	$1.88	$3.90	$8.87	$5.54	$1.45	$4.81
Total		**$91.97**	**$65.43**	**$98.07**	**$80.25**	**$50.42**	**$14.88**	**$32.61**

AFTER 58.00% Commute Adjustment

INCOME CATEGORY

	Affordability Gap[1]	Nexus Cost Per Sq. Ft. OFFICE	HOTEL	RETAIL / ENTRTNMNT	HOSPITAL / MEDICAL	MANUFACTURING / INDUSTRIAL	WAREHOUSING / STORAGE	EDUCATIONAL
Under 50% Median Income [2]	$74,000	$2.90	$13.84	$18.18	$5.36	$3.77	$1.18	$1.74
50% to 80% Median Income [2]	$46,000	$12.02	$15.67	$19.35	$13.16	$8.06	$2.29	$4.87
80% to 120% Median Income [3]	$105,000	$30.75	$7.33	$17.07	$22.87	$14.19	$4.32	$9.51
120% to 150% Median Income [3]	$39,000	$7.65	$1.09	$2.26	$5.14	$3.21	$0.84	$2.79
Total		**$53.32**	**$37.94**	**$56.86**	**$46.53**	**$29.23**	**$8.63**	**$18.91**

[1] Assume two-bedroom unit.

[2] Assumes households are housed in rental units

[3] Assumes households are housed in ownership units.

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Filename: 19035.008\SD-Main Model; IV-2 Model Summary; 12/2/2004; dd

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SECTION V – MATERIALS TO ASSIST IN UPDATING THE FEE PROGRAM

The purpose of this section is to provide information to assist policy makers in updating the Jobs Housing Impact Fee program in San Diego. As indicated at the end of the previous section, the nexus analysis establishes maximum levels supported by the analysis. Recognizing a variety of City objectives, policymakers may set the fees or other obligations at any level below the maximum and may design other program features to meet local goals and objectives.

The materials in this section have nothing to do with establishing the nexus. Instead this section provides an assembly of materials that helps answer questions frequently asked when designing a fee program: How can a fee level be selected? How do we evaluate when a fee will slow development? What do other cities do in their programs?

Existing Fee Levels

Before presenting alternative approaches to fee revisions, it is useful to briefly review the fee levels since the original program was adopted. It is recalled that in 1996 the fees were reduced to half.

	Original Fee	Fee Since 1996
Office	$2.12	$1.06
Hotel	$1.28	$0.64
Retail/Entertainment	$1.28	$0.64
Hospital/Medical	$2.12	$1.06
Manufacturing/Industrial	$1.28	$0.64
Warehousing/Storage	$0.54	$0.27
Education	$1.60	$0.80

All building types are subject to the fee. The City's Department of Development Services determines the building type and fee applicable. A variance provision allows applicants who believe the jobs housing nexus as quantified in the analysis does not apply to their projects, to pursue a process with the City for a reduced fee or exemption.

How the City Wishes to Spend Revenue Dollars

The total nexus cost is comprised of four separate income tiers — very low income, low income, moderate income, and "workforce" income. The workforce tier, which is 120% to 150% of Area Median Income was included in the analysis per City staff direction, in the event that policy makers wish to include this tier in the program. If the tier is included in the analysis and

program, then the City may expend fee revenues to assist in making units affordable to workforce income households.

Total nexus costs up through low income, moderate income, and workforce income respectively are drawn from the information on the lower half of Table IV-9, and is shown on Table V-1.

The decision as to whether to include the workforce tier, or any tier, should be made to be consistent with how the City wishes to spend fee revenue dollars.

Fees as a Percent of the Nexus Amount

Policy makers may establish fees at any level below the maximum for the seven building types in the analysis — office, hotel, retail/entertainment, hospital/medical, manufacturing/industrial, warehousing/storage, educational — in the same proportion to the nexus or may independently select the fee for each building type, weighing policy considerations separately for each one. Most jurisdictions now use the latter approach.

When San Diego adopted Housing Impact Fees initially, fees were set at a 10% share of the calculated nexus cost which included only the very low and low income tiers, or up to 80% of median income. The current analysis goes up to 150% of median. In the event the City wishes to continue using this approach, the nexus amounts are summarized below, assuming the program reaches to alternative income and affordability levels.

Building Type	Nexus Cost	@10%
Office	$53.32	$5.32
Hotel	$37.94	$3.79
Retail/Entertainment	$56.86	$5.69
Hospital/Medical	$46.53	$4.66
Manufacturing/Industrial	$29.23	$2.92
Warehousing	$8.63	$0.86
Educational	$18.91	$1.89

Other income tiers and percentage calculations are provided in Table V-1.

The principal advantage of this approach lies in its simplicity and avoidance of addressing each fee independently. The disadvantage is that there could be a disproportionate burden on one building type. Alternatively, there could be a lost opportunity in not charging a higher fee on a building type that could clearly sustain a higher fee level. For example, hotels in San Diego could sustain a fee similar to office buildings despite a lower nexus cost, given that the hotel room rate structure (and development cost supported) in San Diego is so strong.

Fees as a Percent of Total Development Cost

This approach examines the total development cost associated with each building type and looks at fees in the context of the total cost. With this approach each building type can have the impact of a fee level understood in terms of how much it would add to cost, assuming for a moment that all other costs are fixed. This approach facilitates an evaluation of whether the amount is likely to affect development decisions. Most cities want more revenue for housing but not at the expense of driving desirable development activity outside the city limits.

In a city as large as San Diego, there is a broad range of conditions and development "products" that might be built for the various building types or land uses. For example, office buildings can range from minimal one story structures with surface parking, to multiple story buildings with decked parking, to high rises in the downtown with subterranean parking. To cover the range we have assembled prototypes for each of the major commercial and industrial building types.

When identifying prototypes for this purpose, a conscious effort has been made to include the least expensive prototype developed (in any meaningful quantity) within the jurisdiction. In the case of San Diego, some prototypes were selected to cover activity in lower land cost locations where less expensive buildings are constructed and where surface parking is the only economic option. In this context, the South Bay Enterprise Zone was excluded on the basis of this area having a land value structure so different from the rest of the city as to not provide a useful "lowest common denominator." With the exception of a few industrial building types, most of the prototypes used in this analysis are not being developed in the South Bay area, nor are they expected to be in the foreseeable future. Should development in South Bay be subject to housing impact fees, KMA recommends special consideration such as a reduced fee amount.

Tables V-2 at the end of this section provides summary project descriptions, density and floor area ratio (FAR) information, parking ratio and configuration for the following prototypes:

- Office
    - Garden office, 3 stories, surface parking.
    - Suburban mid-rise, 5 stories, deck parking.
    - Urban high-rise, 10 stories, subterranean parking.
- Retail
    - Strip retail center, 1 story, surface parking.
    - Community retail center, 1 story, surface parking.
    - Urban retail center, 1 story, deck parking.

- Hotel

  - Extended stay hotel, 3 stories, surface parking.
  - Full service, mid-rise hotel, 7 stories, structured parking.

- Industrial

  - Warehouse/storage, 2.5 parking spaces per 1,000 square feet.
  - Flex industrial, a story, 4.0 parking spaces per 1,000 square feet.
  - High tech industrial, 3 stories, 4.0 parking spaces per 1,000 square feet.

The emphasis has been on examining prototypes that have less expensive total development costs. Consistent with this approach KMA has not provided prototypes for medical and educational prototypes because costs are higher than standard commercial and industrial buildings of the same density and configuration and also because cost information is not readily available.

Total development cost information has been assembled and separately itemized as follows:

- Land cost – per square foot land and building area
- Site work and amenities
- Parking construction
- Shell construction
- Tenant improvements and related
- Indirects and financing costs
- Total permits and fees

Total development cost per square foot of building area is summarized below with fees possibilities evaluated at 1% and 3%, a range for consideration. Costs from Table V-2 have been rounded.

Building Types	Total Development Cost Range Per Square Foot	Fee Levels PSF @ 1%	@ 3%
Office prototypes	$200-$290	$2.00-$2.90	$6.00-$8.70
Hotel prototypes	$180-$250	$1.80-$2.50	$5.40-$7.50
Retail prototypes	$200-$310	$2.00-$3.10	$6.00-$9.30
Warehouse/Storage	$150	$1.50	$4.50
Industrial/Flex/Mfg.	$200-$290	$2.00-$2.90	$6.00-$8.70

In summary, other than warehousing and storage type uses, total development costs, for the most part, start at $200 per square foot. The other prototypes, which primarily represent the middle portion of the cost range, frequently have costs around $300 per square foot. Needless to say, in the highest value locations within the city such as Downtown, University City and La Jolla, total development costs are higher than the upper end indicated here.

Other Ordinance or Program Features

A Housing Impact Fee Program often has other features to address other policy objectives or specific concerns. The most common ones are:

Minimum Size Threshold

A minimum size threshold sets a building size over which fees are in effect. Many programs have no such threshold as has been the case with the San Diego program. In general, the programs with the higher fees tend to have more significant thresholds. Programs with low fees often have no thresholds and all construction is subject to the fee.

Geographic Area Variations

Some cities with linkage fee programs exclude specific areas such as redevelopment areas and enterprise or empowerment zones. The San Diego program has exempted some major zones in the past.

It has been previously suggested in this analysis that the South Bay Enterprise Zone be treated differently from the rest of the city based on the very different land value and development cost structure in that part of the city.

City staff has assembled information on the enterprise zones and is putting forth options for consideration.

Specific Use Exemptions

A city, in its ordinance, may choose to exempt specific uses. The most common exemption is for child care centers due to public policy objectives.

Other Jurisdiction Housing Linkage Programs

It is always of interest to policy makers to know what other cities and counties have in place in the way of similar programs. As a generality, compared to inclusionary programs, linkage programs are far fewer in number and are far less complex.

Table V-3 is a three-page chart summarizing the programs in California jurisdictions. The organization of the chart is by fee amount. The top tier is cities with fees of $10 per square foot or more — San Francisco, Palo Alto, and Menlo Park, all cities with very powerful market conditions, the current recession notwithstanding.

The second tier is jurisdictions that have programs in the $4 to $9 per square foot range. Several Silicon Valley cities are in this category. A number of jurisdictions have update programs underway and will likely move into this tier.

The third tier is the lower fee jurisdictions, of which the San Diego program is currently one.

The chart provides information on a number of program features in addition to the fee amount.

Summary

This section of the report has provided materials to assist in deliberating an adjustment to the San Diego program fee levels. All fee levels likely to be considered are far below the "total nexus cost," the only legal constraint to setting the fees. Fees should be established based on the nexus and any combination of policy considerations that the City wishes to bring to bear.

In San Diego, some of the choices could be:

- Increase past fees by a consistent amount across the board, such as doubling or tripling them;
- Apply a percentage to the total nexus cost;
- Apply a percentage to the total development costs estimates; and
- Select fee levels independently based on policy considerations, using no formula.

All approaches have validity; there is no one correct way to select fees, beyond a careful consideration of local policies and goals. As can be seen from the chart on other jurisdictions, cities go about their fees in different ways. Some combine similar nexus amounts on building types to a single fee – such as all commercial at $4.00 per square foot.

TABLE V-1
TOTAL NEXUS COSTS AND POTENTIAL FEE LEVELS BY INCOME CATEGORIES
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

AFTER 58.00% Commute Adjustment

INCOME CATEGORY	Nexus Cost/Fees Per Sq. Ft.						
	OFFICE	HOTEL	RETAIL / ENTRTNMNT	HOSPITAL / MEDICAL	MANUFACTURING / INDUSTRIAL	WAREHOUSING / STORAGE	EDUCATIONAL
Up to 80% Median Income							
Full Nexus Cost	**$14.92**	**$29.51**	**$37.53**	**$18.51**	**$11.83**	**$3.47**	**$6.62**
Fee @ 10%	$1.49	$2.95	$3.75	$1.85	$1.18	$0.35	$0.66
Fee @ 20%	$2.98	$5.90	$7.51	$3.70	$2.37	$0.69	$1.32
Fee @ 30%	$4.48	$8.85	$11.26	$5.55	$3.55	$1.04	$1.98
Up to 120% Median Income							
Full Nexus Cost	**$45.67**	**$36.84**	**$54.60**	**$41.38**	**$26.02**	**$7.79**	**$16.12**
Fee @ 10%	$4.57	$3.68	$5.46	$4.14	$2.60	$0.78	$1.61
Fee @ 20%	$9.13	$7.37	$10.92	$8.28	$5.20	$1.56	$3.22
Up to 150% Median Income							
Full Nexus Cost	**$53.32**	**$37.94**	**$56.86**	**$46.53**	**$29.23**	**$8.63**	**$18.91**
Fee @ 5%	$2.67	$1.90	$2.84	$2.33	$1.46	$0.43	$0.95
Fee @ 10%	$5.33	$3.79	$5.69	$4.65	$2.92	$0.86	$1.89
Fee @ 20%	$10.66	$7.59	$11.37	$9.31	$5.85	$1.73	$3.78

Prepared by: Keyser Marston Associates, Inc.
Filename: 19035.008\SD-Main Model; V-1 Percent of Total; 12/2/2004; dd

TABLE V-2
DEVELOPMENT PROTOTYPES
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

	Prototype 6 Strip Retail Center		Prototype 7 Community Retail Center		Prototype 8 "Urban" Retail Center	
Project Description						
Site Size (Acres)		2.50		10.00		4.00
Floor Area Ratio (FAR)		0.30		0.25		0.50
Gross Building Area (GBA)		33,000		109,000		87,000
Density		N/A		N/A		N/A
Number of Stories		1		1		1
Number of Rooms		N/A		N/A		N/A
Parking Spaces		170		550		440
Parking Ratio (per 1,000 SF)		5.0		5.0		5.0
Type		Surface		Surface		Deck/Structured
Development Costs						
Land	$20 /SF	$2,178,000	$20 /SF	$8,712,000	$40 /SF	$6,970,000
Sitework / Amenities	$5 /SF	$545,000	$5 /SF	$2,178,000	$8 /SF	$1,394,000
Parking	$1,500 /Space	$255,000	$1,500 /Space	$825,000	$10,000 /Space	$4,400,000
Shell Construction	$60 /SF GBA	$1,980,000	$65 /SF GBA	$7,085,000	$75 /SF GBA	$6,525,000
Tenant Improvements/FF&E	$15 /SF GBA	$495,000	$25 /SF GBA	$2,725,000	$30 /SF GBA	$2,610,000
Subtotal, Direct Costs	$99 /SF GBA	$3,275,000	$118 /SF GBA	$12,813,000	$172 /SF GBA	$14,929,000
Add: Indirects/Financing (1)	30% of Directs	$983,000	30% of Directs	$3,844,000	30% of Directs	$4,479,000
Add: Permits and Fees	$7 /SF GBA	$231,000	$7 /SF GBA	$763,000	$7 /SF GBA	$609,000
Total Development Costs	$202 /SF GBA	$6,667,000	$240 /SF GBA	$26,132,000	$310 /SF GBA	$26,987,000

(1) Excludes permits and fees.
(2) Per Building Industry Association 2002-2003 Fee Survey for City of San Diego.

Prepared by: Keyser Marston Associates, Inc.
Filename: 19035.008\SD Prototypes Table V-2; Table 1; 12/2/2004

TABLE V-2
DEVELOPMENT PROTOTYPES
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

	Prototype 1 Garden Office			Prototype 2 Suburban Mid-Rise Office			Prototype 6 Urban High-Rise Office		
Project Description									
Site Size (Acres)			3.50			2.00			1.00
Floor Area Ratio (FAR)			0.40			1.50			4.00
Gross Building Area (GBA)			61,000			131,000			174,000
Density			N/A			N/A			N/A
Number of Stories			3			5			10
Number of Rooms			N/A			N/A			N/A
Parking Spaces			240			520			440
Parking Ratio (per 1,000 SF)			4.0			4.0			2.5
Type			Surface			Deck/Structured			Subterranean
Development Costs									
Land	$20	/SF	$3,049,000	$50	/SF	$4,356,000	$200	/SF	$8,712,000
Sitework / Amenities	$5	/SF	$762,000	$5	/SF	$436,000	$10	/SF	$436,000
Parking	$1,500	/Space	$360,000	$10,000	/Space	$5,200,000	$18,000	/Space	$7,920,000
Shell Construction	$70	/SF GBA	$4,270,000	$85	/SF GBA	$11,135,000	$100	/SF GBA	$17,400,000
Tenant Improvements/FF&E	$25	/SF GBA	$1,525,000	$35	/SF GBA	$4,585,000	$35	/SF GBA	$6,090,000
Subtotal, Direct Costs	$113	/SF GBA	$6,917,000	$163	/SF GBA	$21,356,000	$183	/SF GBA	$31,846,000
Add: Indirects/Financing (1)	30%	of Directs	$2,075,000	30%	of Directs	$6,407,000	30%	of Directs	$9,554,000
Add: Permits and Fees	$6	/SF GBA	$366,000	$6	/SF GBA	$786,000	$6	/SF GBA	$1,044,000
Total Development Costs	$203	/SF GBA	$12,407,000	$251	/SF GBA	$32,905,000	$294	/SF GBA	$51,156,000

(1) Excludes permits and fees.
(2) Per Building Industry Association 2002-2003 Fee Survey for City of San Diego.

Prepared by: Keyser Marston Associates, Inc.
Filename: 19035.008\SD Prototypes Table V-2; Table 1; 12/2/2004

TABLE V-2
DEVELOPMENT PROTOTYPES
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

	Prototype 11 Warehouse/Storage		Prototype 9 Flex Industrial		Prototype 10 High-Tech Industrial	
Project Description						
Site Size (Acres)		5.00		3.50		4.00
Floor Area Ratio (FAR)		0.35		0.35		0.35
Gross Building Area (GBA)		76,000		53,000		61,000
Density		N/A		N/A		N/A
Number of Stories		1		1 + Mezzanine		3
Number of Rooms		N/A		N/A		N/A
Parking Spaces		190		210		240
Parking Ratio (per 1,000 SF)		2.5		4.0		4.0
Type		Surface		Surface		Surface
Development Costs						
Land	$15 /SF	$3,267,000	$20 /SF	$3,049,000	$30 /SF	$5,227,000
Sitework / Amenities	$5 /SF	$1,089,000	$5 /SF	$762,000	$5 /SF	$871,000
Parking	$1,500 /Space	$285,000	$1,500 /Space	$315,000	$1,500 /Space	$360,000
Shell Construction	$50 /SF GBA	$3,800,000	$60 /SF GBA	$3,180,000	$90 /SF GBA	$5,490,000
Tenant Improvements/FF&E	$10 /SF GBA	$760,000	$25 /SF GBA	$1,325,000	$40 /SF GBA	$2,440,000
Subtotal, Direct Costs	$78 /SF GBA	$5,934,000	$105 /SF GBA	$5,582,000	$150 /SF GBA	$9,161,000
Add: Indirects/Financing (1)	30% of Directs	$1,780,000	30% of Directs	$1,675,000	30% of Directs	$2,748,000
Add: Permits and Fees	$5 /SF GBA	$380,000	$6 /SF GBA	$318,000	$6 /SF GBA	$366,000
Total Development Costs	$149 /SF GBA	$11,361,000	$200 /SF GBA	$10,624,000	$287 /SF GBA	$17,502,000

(1) Excludes permits and fees.
(2) Per Building Industry Association 2002-2003 Fee Survey for City of San Diego.

Prepared by: Keyser Marston Associates, Inc.
Filename: 19035.008\SD Prototypes Table V-2; Table 1; 12/2/2004

TABLE V-2
DEVELOPMENT PROTOTYPES
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

	Prototype 4 Extended-Stay Hotel		Prototype 5 Full-Service Mid-Rise Hotel	
Project Description				
Site Size (Acres)		3.00		2.00
Floor Area Ratio (FAR)		0.80		2.50
Gross Building Area (GBA)		105,000		218,000
Density		N/A		N/A
Number of Stories		3		7
Number of Rooms		150		250
Parking Spaces		180		250
Parking Ratio (per 1,000 SF)	Spaces Per Room	1.2	Spaces Per Room	1.0
Type		Surface		Structured
Development Costs				
Land	$30 /SF	$3,920,000	$50 /SF	$4,356,000
Sitework / Amenities	$8 /SF	$1,045,000	$8 /SF	$697,000
Parking	$1,500 /Space	$270,000	$15,000 /Space	$3,750,000
Shell Construction	$80 /SF GBA	$8,400,000	$120 /SF GBA	$26,160,000
Tenant Improvements/FF&E	$10,000 Per Room	$1,500,000	$25,000 Per Room	$6,250,000
Subtotal, Direct Costs	$107 /SF GBA	$11,215,000	$169 /SF GBA	$36,857,000
Add: Indirects/Financing (1)	30% of Directs	$3,365,000	30% of Directs	$11,057,000
Add: Permits and Fees	$7 /SF GBA	$735,000	$7 /SF GBA	$1,526,000
Total Development Costs	$183 /SF GBA	$19,235,000	$247 /SF GBA	$53,796,000

(1) Excludes permits and fees.
(2) Per Building Industry Association 2002-2003 Fee Survey for City of San Diego.

Prepared by: Keyser Marston Associates, Inc.
Filename: 19035.008\SD Prototypes Table V-2; Table 1; 12/2/2004

TABLE V-3
OTHER JOBS HOUSING LINKAGE PROGRAMS
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO

HIGH FEE CITIES

Jurisdiction	Yr. Adopted /Updated	Current Fee Levels per SF	Thresholds & Exemptions	Build Option/ Other	Market Strength	Comments
City of Palo Alto	1984 Updated in March 2002	• Commercial & Industrial $15.58	No Minimum Threshold Churches; colleges and universities; comm'l recreation; hospitals, convalescent facilities; private clubs, lodges, fraternal org 's; private educational facilities; and public facilities are exempt.	Yes	Very Substantial	Fee is adjusted annually based on CPI.
City and County of San Francisco	1981 Updated fees in 2002.	• Office $14.96 • Hotel $11.21 • Retail $13.95	25,000 gross SF threshold. Excludes: redevelopment areas and Port.	Yes, may contribute land for housing.	Very Substantial	$40 million raised
City of Menlo Park	1998	• Commercial & Industrial $10.00. • Warehousing, printing, assembly $5.45	10,000 gross SF Threshold. Churches, private clubs, lodges, fraternal orgs and public facilities are exempt.	Yes, may provide housing on- or off-site.	Very Substantial	Fee is adjusted annually based on CPI.

MEDIUM FEE CITIES

Jurisdiction	Yr. Adopted /Updated	Current Fee Levels per SF	Thresholds & Exemptions	Build Option/ Other	Market Strength	Comments
City of Mountain View	2001	• Office/Industrial $6.00 • Hotel $2.00 • Retail $2.00	Fee is 50% less if building meets thresholds: Office <10,000 sf Hotel <25,000 sf Retail <25,000 sf	Yes	Very Substantial	
County of Marin	2003	• Office/R&D $7.19 • Retail/Rest. $5.40 • Warehouse $1.95 • Hotel/Motel $1,746/room • Manufacturing $3.74	No minimum threshold.	Yes, preferred	Substantial	
City of St. Helena	2004	• Office $3.40 * • Comm./Retail $4.30 * • Hotel $3.14 * • Winery/Industrial $1.05 * (See comments).	Small childcare facilities, churches, non-profits, vineyards, and public facilities are exempt	Yes, subject to City Council approval.	Substantial	* Fee will be phased-in over 3 time periods. Fees listed are full fees, starting in October 2005
City of Oakland	2002	• Office/ Warehouse $4.00	25,000 sf exemption	Yes - Can build units equal to total eligible sf times .0004	Moderate	Fee will be effective July 1, 2005 Fee due in 3 installments. Fee will be adjusted with an annual escalator tied to residential construction cost increases.
Town of Corte Madera	2001	• Office $4.79 • R&D lab $3.20 • Light Industrial $2.79 • Warehouse $0.40 • Retail $8.38 • Com Services $1.20 • Restaurant $4.39 • Hotel $1.20	No Minimum Threshold.	NA	Substantial	

TABLE V-3 (cont'd)
OTHER JOBS HOUSING LINKAGE PROGRAMS
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO

City of Berkeley	1993	• All Commercial $4.00 • Industrial $2.00	7,500 SF threshold	Yes	Substantial	Fee has not changed since 1993; may negotiate fee downward based on hardship or reduced impact.
City of Sunnyvale	1984 Updated in 2003	• Industrial & Office $8	Applies only to the portion of the project that is in excess of allowable FAR (typically 0.35:1)	NA	Very Substantial	Fee had not changed since the 1980's. until fee was recently raised from $7.19.
City of Santa Monica	1984 Updated fees in 2002.	• Office only • $3.87 per square foot for first 15,000 sf • $8.61 per square foot in excess of 15,000 sf.	15,000 sf exemption for new construction. 10,000 sf exemption for additions.	N/A	Very Substantial	
City of Walnut Creek	2005	• Office, retail, hotel and medical $5.00	First 500 sq ft No fee applied.	Yes	Very Substantial	Recommendation of Planning Commission going to Council January 2005.

LOW FEE CITIES

Jurisdiction	Yr. Adopted /Updated	Current Fee Levels per SF	Thresholds & Exemptions	Build Option/ Other	Market Strength	Comments
City of Alameda	1989	• Office $3.63 • Retail $1.84 • Warehouse $0.63 • Hotel/Motel $931 per room	No Minimum Threshold	Yes. Program specifies number of units per 100,000 square feet.	Moderate	Fee may be adjusted by CPI
City of Petaluma	2003	• Commercial $2.08 * • Industrial $2.15 * • Retail $3.59 * (See Comments)	Fee is 50% less if located in redevelopment project area	NA	Moderate/ Substantial	* Fee will be phased-in over 3 years beginning 2005. Fees listed are full fees, starting in 2007.
City of San Diego	1990 Fees reduced in mid 90s; have not been readjusted	• Office $1.06 • Hotel $0.64 • R&D $0.80 • Retail $0.64 • Manufacturing $0.64 • Warehouse $0.27	No Minimum Threshold. No exempted uses. Does exclude some geographic areas.	Can dedicate land or air rights in lieu of fee.	Substantial	Since 1990, $33 million raised. Update in process.
County of Napa (Also City of Napa)	County – Updated 2004 City 1999	• Office $2.00 • Hotel $3.00 • Retail $2.00 • Industrial $1.00 • Warehouse $0.80	No Minimum Threshold Non-profits are exempt.	Units or land dedication; on a case by case basis.	Moderate/ Substantial	There is a companion fee of 1% of construction costs on all residential construction. Napa City rates not updated to these levels yet.
City and County of Sacramento	1989	• Office $0.99 • Hotel $0.94 • R&D $0.84 • Commercial $0.79 • Manufacturing $0.62 • Warehouse/Office $0.36 • Warehouse $0.27	No Minimum Threshold. Service uses operated by non-profits are exempt.	Pay 20% fee plus build at reduced nexus (Not meaningful given amount of fee).	Moderate	Applies to all non-residential construction; alternate fees for North Natomas area. Since 1989, raised more than $11 million. Update in process.
City of Livermore	1999	• Retail $0.81 • Service Retail $0.61 • Office $0.52 • Hotel $397 per room • Manufacturing $0.25 • Warehouse $0.07	No Minimum Threshold Church; private or public schools.	Yes; negotiated on a case-by-case basis.	Moderate	

TABLE V-3 (cont'd)
OTHER JOBS HOUSING LINKAGE PROGRAMS
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO

		• Business Park $0 52 • Heavy Industrial $0 26 • Light Industrial $0 16				
City of Pleasanton		• Commercial, Office & Industrial $2.31 sq. ft.	No Minimum Threshold	NA	Moderate	Fee increased in 2003.
City of Cupertino	1993	• Office & Industrial $2 25	No Minimum Threshold	NA	Very Substantial	Fee is adjusted annually based on CPI. Update in process.

Programs Pending: San Mateo
San Rafael

Appendices

APPENDIX TABLE 1
2002 NATIONAL OFFICE WORKER DISTRIBUTION BY OCCUPATION
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

Major Occupations (3% or more)	2002 National Office Industry Occupation Distribution	
Management Occupations	1,719,290	9.0%
Business and Financial Operations Occupations	1,981,360	10.4%
Computer and Mathematical Science Occupations	1,529,750	8.0%
Architecture and Engineering Occupations	806,100	4.2%
Legal Occupations	616,570	3.2%
Healthcare Practitioner and Technical Occupations	1,478,010	7.7%
Healthcare Support Occupations	751,610	3.9%
Sales and Related Occupations	1,231,970	6.4%
Office and Administrative Support Occupations	6,792,620	35.5%
Installation, Maintenance, and Repair Occupations	579,000	3.0%
All Other Office Related Occupations	1,621,130	8.5%
INDUSTRY TOTAL	19,107,410	100.0%

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc
Filename: 19035 008\SD-Office; Major Occupations Matrix; 12/3/2004; dd

APPENDIX TABLE 2
AVERAGE ANNUAL COMPENSATION, 2003
OFFICE WORKER OCCUPATIONS
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

Occupation [3]	2003 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total Office Workers
Management Occupations			
Chief Executives	$153,000	7.7%	0.7%
General and Operations Managers	$106,100	23.2%	2.1%
Marketing Managers	$102,300	4.7%	0.4%
Sales Managers	$97,100	4.8%	0.4%
Administrative Services Managers	$67,300	4.8%	0.4%
Computer and Information Systems Managers	$94,100	7.8%	0.7%
Financial Managers	$91,400	14.0%	1.3%
Property, Real Estate, and Community Association Managers	$55,900	7.4%	0.7%
All Other Management Occupations	$87,600	25.6%	2.3%
Weighted Mean Annual Wage	***$95,800***	100.0%	9.0%
Business and Financial Operations Occupations			
Claims Adjusters, Examiners, and Investigators	$41,700	9.4%	1.0%
Management Analysts	$62,800	11.0%	1.1%
Accountants and Auditors	$54,100	21.1%	2.2%
Financial Analysts	$75,500	4.9%	0.5%
Insurance Underwriters	$50,100	4.6%	0.5%
Loan Officers	$57,900	9.2%	1.0%
All Other Business and Financial Operations Occupations (avg all categories)	$55,400	39.7%	4.1%
Weighted Mean Annual Wage	***$55,600***	100.0%	10.4%
Computer and Mathematical Science Occupations			
Computer Programmers	$69,400	17.4%	1.4%
Computer Software Engineers, Applications	$78,100	15.8%	1.3%
Computer Software Engineers, Systems Software	$77,900	10.0%	0.8%
Computer Support Specialists	$43,500	15.0%	1.2%
Computer Systems Analysts	$67,900	15.8%	1.3%
Network and Computer Systems Administrators	$61,200	8.0%	0.6%
Network Systems and Data Communications Analysts	$65,200	5.0%	0.4%
All Other Computer and Mathematical Occupations (avg all categories)	$67,700	12.9%	1.0%
Weighted Mean Annual Wage	***$66,400***	100.0%	8.0%
Architecture and Engineering Occupations			
Architects, Except Landscape and Naval	$66,200	9.4%	0.4%
Surveyors	$54,500	5.2%	0.2%
Civil Engineers	$70,700	13.3%	0.6%
Electrical Engineers	$79,800	5.5%	0.2%
Electronics Engineers, Except Computer	$81,200	4.1%	0.2%
Mechanical Engineers	$69,800	5.2%	0.2%
Architectural and Civil Drafters	$42,800	9.4%	0.4%
Civil Engineering Technicians	$49,800	4.7%	0.2%
Electrical and Electronic Engineering Technicians	$46,900	4.8%	0.2%
Surveying and Mapping Technicians	$41,600	4.8%	0.2%
All Other Architecture and Engineering Occupations (avg all categories)	$64,200	33.5%	1.4%
Weighted Mean Annual Wage	***$62,000***	100.0%	4.2%
Legal Occupations			
Lawyers	$110,800	61.0%	2.0%
Paralegals and Legal Assistants	$48,000	25.8%	0.8%
Title Examiners, Abstractors, and Searchers	$47,100	6.9%	0.2%
All Other Legal and Related Occupations	$48,300	6.3%	0.2%
Weighted Mean Annual Wage	***$86,300***	100.0%	3.2%

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc
Filename: 19035 008\SD-Office; Compensation; 12/3/2004; dd

Occupation [3]	2003 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total Office Workers
Healthcare Practitioner and Technical Occupations			
Dentists	$84,400	5 8%	0 5%
Family and General Practitioners	$131,300	5 0%	0 4%
Registered Nurses	$59,000	16 7%	1 3%
Dental Hygienists	$81,600	9 7%	0 8%
Radiologic Technologists and Technicians	$46,400	4 1%	0 3%
Licensed Practical and Licensed Vocational Nurses	$36,900	6 7%	0 5%
All Other Healthcare Practitioners and Technical Occupations (avg all categories)	$61,800	51.9%	4.0%
Weighted Mean Annual Wage	***$65,800***	100.0%	7.7%
Healthcare Support Occupations			
Dental Assistants	$33,200	34 0%	1 3%
Medical Assistants	$26,900	34 6%	1.4%
Medical Transcriptionists	$32,700	5.4%	0 2%
Veterinary Assistants and Laboratory Animal Caretakers	$19,200	7 3%	0 3%
All Other Health Care Support Occupations (avg all categories)	$25,500	18.6%	0.7%
Weighted Mean Annual Wage	***$28,500***	100 0%	3 9%
Sales and Related Occupations			
First-Line Supervisors/Managers of Non-Retail Sales Workers	$62,000	5 0%	0 3%
Retail Salespersons	$25,100	5 1%	0 3%
Insurance Sales Agents	$50,600	21 8%	1 4%
Securities. Commodities. and Financial Services Sales Agents	$76,300	4 4%	0 3%
Sales Representatives. Wholesale and Manufacturing. Technical and Scientific Products	$67,400	4 3%	0 3%
Sales Representatives. Wholesale and Manufacturing. Except Technical and Scientific Produc	$53,800	7 2%	0 5%
Real Estate Sales Agents	$53,200	8 1%	0 5%
Telemarketers	$23,600	7 1%	0 5%
All Other Sales and Related Occupations (avg all categories)	$33,900	37.1%	2.4%
Weighted Mean Annual Wage	***$44,000***	100 0%	6 4%
Office and Administrative Support Occupations			
First-Line Supervisors/Managers of Office and Administrative Support Workers	$44,400	7 3%	2 6%
Bookkeeping. Accounting. and Auditing Clerks	$32,000	7 1%	2 5%
Tellers	$22,500	7 3%	2 6%
Customer Service Representatives	$29,800	11 0%	3 9%
Receptionists and Information Clerks	$23,700	6 9%	2 4%
Executive Secretaries and Administrative Assistants	$38,700	6 6%	2 3%
Secretaries. Except Legal. Medical. and Executive	$30,000	6 7%	2 4%
Office Clerks. General	$24,600	10 7%	3 8%
All Other Office and Admin Support Occupations (avg all categories)	$29,700	36.6%	13.0%
Weighted Mean Annual Wage	***$30,100***	100 0%	35.5%
Installation. Maintenance. and Repair Occupations			
First-Line Supervisors/Managers of Mechanics. Installers. and Repairers	$55,800	7 6%	0 2%
Telecommunications Equipment Installers and Repairers. Except Line Installers	$46,900	19 7%	0 6%
Maintenance and Repair Workers. General	$31,300	40 4%	1 2%
Telecommunications Line Installers and Repairers	$43,200	10 9%	0 3%
All Other Installation. Maintenance. and Repair Occupations (avg all categories)	$39,100	21.3%	0.6%
Weighted Mean Annual Wage	***$39,200***	100.0%	3.0%
			91 5%

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

[2] Occupation percentages are based on the 2002 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics Wages have been updated to 3rd Quarter 2003. OES 2002 - San Diego MSA (San Diego County).

3 Including Occupations representing 4% or more of the major occupation group

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc
Filename: 19035.008\SD-Office; Compensation; 12/3/2004; dd

APPENDIX TABLE 3
2002 NATIONAL HOTEL WORKER DISTRIBUTION BY OCCUPATION
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

Major Occupations (3% or more)	2002 National Hotel Industry Occupation Distribution	
Management Occupations	81,980	5.0%
Food Preparation and Serving Related Occupations	475,690	*29.1%*
Building and Grounds Cleaning and Maintenance Occupations	493,760	*30.2%*
Personal Care and Service Occupations	66,600	*4.1%*
Office and Administrative Support Occupations	281,830	*17.2%*
Installation, Maintenance, and Repair Occupations	65,080	*4.0%*
All Other Hotel Related Occupations	172,290	*10.5%*
INDUSTRY TOTAL	1,637,230	100.0%

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc
Filename: 19035.008\SD-Hotel; Major Occupations Matrix; 12/3/2004; dd

APPENDIX TABLE 4
AVERAGE ANNUAL COMPENSATION, 2003
HOTEL WORKER OCCUPATIONS
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

Occupation [3]	2003 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total Hotel Workers
Management Occupations			
General and Operations Managers	$106,100	18.8%	0.9%
Sales Managers	$97,100	10.8%	0.5%
Financial Managers	$91,400	5.4%	0.3%
Food Service Managers	$43,900	14.7%	0.7%
Lodging Managers	$64,100	31.5%	1.6%
All Other Management Occupations	$87,600	18.8%	0.9%
Weighted Mean Annual Wage	***$78,500***	100.0%	5.0%
Food Preparation and Serving Related Occupations			
First-Line Supervisors/Managers of Food Preparation and Serving Workers	$27,100	4.2%	1.2%
Cooks, Restaurant	$20,200	11.5%	3.3%
Food Preparation Workers	$18,400	4.1%	1.2%
Bartenders	$16,900	8.2%	2.4%
Waiters and Waitresses	$18,000	29.3%	8.5%
Food Servers, Nonrestaurant	$16,700	8.5%	2.5%
Dining Room and Cafeteria Attendants and Bartender Helpers	$17,000	9.4%	2.7%
Dishwashers	$16,500	8.3%	2.4%
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	$17,300	4.6%	1.3%
Food Preparation and Serving Related Workers, All Other	$19,600	11.9%	3.5%
Weighted Mean Annual Wage	***$18,400***	100.0%	29.1%
Building and Grounds Cleaning and Maintenance Occupations			
First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	$32,400	6.5%	2.0%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	$21,300	9.9%	3.0%
Maids and Housekeeping Cleaners	$18,200	78.7%	23.7%
All Other Building and Grounds Cleaning and Maintenance Workers	$27,700	4.9%	1.5%
Weighted Mean Annual Wage	***$19,900***	100.0%	30.2%
Personal Care and Service Occupations			
First-Line Supervisors/Managers of Personal Service Workers	$34,700	5.0%	0.2%
Amusement and Recreation Attendants	$17,500	12.6%	0.5%
Baggage Porters and Bellhops	$18,500	36.1%	1.5%
Concierges	$28,700	10.6%	0.4%
Fitness Trainers and Aerobics Instructors	$34,200	4.4%	0.2%
Recreation Workers	$21,500	4.8%	0.2%
Personal Care and Service Workers, All Other	$27,000	26.5%	1.1%
Weighted Mean Annual Wage	***$23,400***	100.0%	4.1%

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc
Filename: 19035 008\SD-Hotel; Compensation; 12/3/2004; dd

Occupation [3]	2003 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total Hotel Workers
Office and Administrative Support Occupations			
First-Line Supervisors/Managers of Office and Administrative Support Workers	$44,400	6 5%	1 1%
Switchboard Operators. Including Answering Service	$22,500	4 1%	0 7%
Bookkeeping, Accounting. and Auditing Clerks	$32,000	7 6%	1 3%
Hotel. Motel. and Resort Desk Clerks	$21,300	58 1%	10 0%
Reservation and Transportation Ticket Agents and Travel Clerks	$30,400	4 4%	0 8%
All Other Office and Admin Support Occupations (avg all categories)	$29,700	19.2%	3.3%
Weighted Mean Annual Wage	***$25,700***	100.0%	17.2%
Installation. Maintenance, and Repair Occupations			
First-Line Supervisors/Managers of Mechanics. Installers. and Repairers	$55,800	6 8%	0 3%
Maintenance and Repair Workers, General	$31,300	82.3%	3 3%
Installation. Maintenance, and Repair Workers, All Other	$36,700	10.9%	0.4%
Weighted Mean Annual Wage	***$33,500***	100.0%	4.0%
			89 5%

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

[2] Occupation percentages are based on the 2002 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics Wages have been updated to 3rd Quarter 2003 OES 2002 - San Diego MSA (San Diego County)

3 including Occupations representing 4% or more of the major occupation group

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates. Inc
Filename: 19035 008\SD-Hotel; Compensation; 12/3/2004; dd

APPENDIX TABLE 5
2002 NATIONAL RETAIL WORKER DISTRIBUTION BY OCCUPATION
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

Major Occupations (3% or more)	2002 National Retail Industry Occupation Distribution	
Management Occupations	1,177,680	3.5%
Food Preparation and Serving Related Occupations	7,911,860	23.7%
Building and Grounds Cleaning and Maintenance Occupations	1,665,580	5.0%
Sales and Related Occupations	9,206,490	27.6%
Office and Administrative Support Occupations	4,610,860	13.8%
Installation, Maintenance, and Repair Occupations	1,512,290	4.5%
Production Occupations	1,465,640	4.4%
Transportation and Material Moving Occupations	3,053,480	9.1%
All Other Retail Related Occupations	2,804,390	8.4%
INDUSTRY TOTAL	33,408,270	100.0%

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc
Filename: 19035 008\SD-Retail; Major Occupations Matrix; 12/3/2004; dd

APPENDIX TABLE 6
AVERAGE ANNUAL COMPENSATION. 2003
RETAIL WORKER OCCUPATIONS
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

Occupation [3]	2003 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total Retail Workers
Management Occupations			
Chief Executives	$153,000	5 9%	0 2%
General and Operations Managers	$106,100	47 4%	1 7%
Sales Managers	$97,100	7 2%	0 3%
Food Service Managers	$43,900	16 5%	0 6%
All Other Management Occupations	$87,600	22.9%	0.8%
Weighted Mean Annual Wage	***$93,700***	100.0%	3.5%
Food Preparation and Serving Related Occupations			
First-Line Supervisors/Managers of Food Preparation and Serving Workers	$27,100	6 5%	1 5%
Cooks. Fast Food	$16,300	7 2%	1 7%
Cooks. Restaurant	$20,200	7 9%	1 9%
Food Preparation Workers	$18,400	6 7%	1 6%
Bartenders	$16,900	4 2%	1 0%
Combined Food Preparation and Serving Workers. Including Fast Food	$16,200	22 9%	5.4%
Counter Attendants. Cafeteria. Food Concession. and Coffee Shop	$17,400	4 5%	1 1%
Waiters and Waitresses	$18,000	22 6%	5.4%
Dishwashers	$16,500	4 9%	1 2%
All Other Food Preparation and Serving Related Occupations	$19,600	12.7%	3.0%
Weighted Mean Annual Wage	***$18,300***	100.0%	23.7%
Building and Grounds Cleaning and Maintenance Occupations			
Janitors and Cleaners. Except Maids and Housekeeping Cleaners	$21,300	51 2%	2 6%
Maids and Housekeeping Cleaners	$18,200	8 7%	0 4%
Landscaping and Groundskeeping Workers	$21,700	24 9%	1 2%
All Other Building and Grounds Occupations (avg all categories)	$22,200	15.2%	0.8%
Weighted Mean Annual Wage	***$21,300***	100.0%	5.0%
Sales and Related Occupations			
First-Line Supervisors/Managers of Retail Sales Workers	$40,200	11 6%	3 2%
Cashiers	$20,400	33 5%	9 2%
Retail Salespersons	$25,100	39.4%	10 8%
All Other Sales and Related Occupations (avg all categories)	$33,900	15.5%	4.3%
Weighted Mean Annual Wage	***$26,600***	100.0%	27.6%
Office and Administrative Support Occupations			
First-Line Supervisors/Managers of Office and Administrative Support Workers	$44,400	4 7%	0 7%
Bookkeeping. Accounting. and Auditing Clerks	$32,000	7 8%	1 1%
Customer Service Representatives	$29,800	9 8%	1 4%
Receptionists and Information Clerks	$23,700	4 3%	0 6%
Shipping. Receiving. and Traffic Clerks	$25,300	4 9%	0 7%
Stock Clerks and Order Fillers	$23,100	23 5%	3 2%
Secretaries. Except Legal. Medical. and Executive	$30,000	4 7%	0 6%
Office Clerks. General	$24,600	12 1%	1 7%
All Other Office and Administrative Support Occupations (avg all categories)	$29,700	28.1%	3.9%
Weighted Mean Annual Wage	***$28,000***	100.0%	13.8%
Installation. Maintenance. and Repair Occupations			
First-Line Supervisors/Managers of Mechanics. Installers. and Repairers	$55,800	7 7%	0 3%
Automotive Body and Related Repairers	$41,700	10 7%	0 5%
Automotive Service Technicians and Mechanics	$36,000	37 8%	1 7%
Bus and Truck Mechanics and Diesel Engine Specialists	$43,800	4 1%	0 2%
Tire Repairers and Changers	$20,800	4 8%	0 2%
Maintenance and Repair Workers. General	$31,300	7 0%	0 3%
All Other Installation. Maintenance. and Repair Occupations (avg all categories)	$39,100	28.0%	1.3%
Weighted Mean Annual Wage	***$39,000***	100 0%	4 5%

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates Inc
Filename: 19035 008\SD-Retail; Compensation; 12/3/2004; dd

Occupation [3]	2003 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total Retail Workers
Production Occupations			
Team Assemblers	$21,900	6 0%	0 3%
Bakers	$23,600	6 8%	0 3%
Butchers and Meat Cutters	$31,300	7 3%	0 3%
Laundry and Dry-Cleaning Workers	$18,700	7 8%	0 3%
Pressers. Textile. Garment. and Related Materials	$17,400	4 8%	0 2%
Inspectors. Testers. Sorters. Samplers. and Weighers	$31,000	4 0%	0 2%
Packaging and Filling Machine Operators and Tenders	$20,200	6 3%	0 3%
Helpers--Production Workers	$18,300	8 5%	0 4%
All Other Production Occupations (avg all categories)	$26,700	46.5%	2.1%
Weighted Mean Annual Wage	***$24,500***	100 0%	4 4%
Transportation and Material Moving Occupations			
Driver/Sales Workers	$24,400	6 3%	0.6%
Truck Drivers. Heavy and Tractor-Trailer	$35,000	4 8%	0.4%
Truck Drivers. Light Or Delivery Services	$25,400	16.2%	1 5%
Cleaners of Vehicles and Equipment	$18,800	7 9%	0 7%
Laborers and Freight. Stock. and Material Movers. Hand	$20,300	30 5%	2.8%
Packers and Packagers. Hand	$17,700	15 5%	1.4%
All Other Transportation and Material Moving Occupations	$29,100	18.8%	1.7%
Weighted Mean Annual Wage	***$23,200***	100 0%	9 1%
			91 6%

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

[2] Occupation percentages are based on the 2002 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics Wages have been updated to 3rd Quarter 2003. OES 2002 - San Diego MSA (San Diego County)

3 Including Occupations representing 4% or more of the major occupation group

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates. Inc
Filename: 19035 008\SD-Retail; Compensation; 12/3/2004; dd

APPENDIX TABLE 7
2002 NATIONAL MEDICAL WORKER DISTRIBUTION BY OCCUPATION
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

Major Occupations (3% or more)	2002 National Medical Industry Occupation Distribution	
Management Occupations	266,060	3.7%
Community and Social Services Occupations	224,250	3.2%
Healthcare Practitioner and Technical Occupations	3,098,000	43.6%
Healthcare Support Occupations	1,344,220	18.9%
Food Preparation and Serving Related Occupations	340,610	4.8%
Building and Grounds Cleaning and Maintenance Occupations	327,960	4.6%
Office and Administrative Support Occupations	938,770	13.2%
All Other Medical Related Occupations	562,530	7.9%
INDUSTRY TOTAL	7,102,400	100.0%

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc
Filename: 19035 008\SD-Medical; Major Occupations Matrix; 12/3/2004; dd

APPENDIX TABLE 8
AVERAGE ANNUAL COMPENSATION, 2003
MEDICAL WORKER OCCUPATIONS
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

Occupation [3]	2003 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total Medical Workers
Management Occupations			
Chief Executives	$153,000	4 4%	0 2%
General and Operations Managers	$106,100	11 6%	0.4%
Administrative Services Managers	$67,300	6 7%	0 3%
Financial Managers	$91,400	5 0%	0 2%
Medical and Health Services Managers	$88,700	43 5%	1 6%
Social and Community Service Managers	$57,300	4 3%	0 2%
All Other Management Occupations	$87,600	24.6%	0.9%
Weighted Mean Annual Wage	***$90,600***	100.0%	3.7%
Community and Social Services Occupations			
Substance Abuse and Behavioral Disorder Counselors	$24,500	8 2%	0 3%
Mental Health Counselors	$38,200	12 1%	0 4%
Rehabilitation Counselors	$30,400	5 0%	0 2%
Child, Family, and School Social Workers	$37,200	5 9%	0 2%
Medical and Public Health Social Workers	$44,700	22 0%	0 7%
Mental Health and Substance Abuse Social Workers	$32,600	14.4%	0 5%
Health Educators	$42,500	5 2%	0 2%
Social and Human Service Assistants	$25,200	14 0%	0 4%
All Other Community and Social Service Occupations (avg all categories)	$37,200	13.4%	0.4%
Weighted Mean Annual Wage	***$35,500***	100 0%	3 2%
Healthcare Practitioner and Technical Occupations			
Registered Nurses	$59,000	49 2%	21 5%
Licensed Practical and Licensed Vocational Nurses	$36,900	12 7%	5 5%
All Other Healthcare Practitioner and Technical Occupations (avg all categories)	$61,800	38.1%	16.6%
Weighted Mean Annual Wage	***$57,300***	100.0%	43 6%
Healthcare Support Occupations			
Home Health Aides	$20,400	4 0%	0 8%
Nursing Aides, Orderlies, and Attendants	$22,600	71 5%	13 5%
Medical Assistants	$26,900	5 3%	1 0%
All Other Healthcare Support Occupations (avg all categories)	$25,500	19.2%	3.6%
Weighted Mean Annual Wage	***$23,300***	100 0%	18 9%
Food Preparation and Serving Related Occupations			
First-Line Supervisors/Managers of Food Preparation and Serving Workers	$27,100	6 6%	0 3%
Cooks, Institution and Cafeteria	$23,700	24 0%	1 2%
Food Preparation Workers	$18,400	28 5%	1 4%
Combined Food Preparation and Serving Workers, Including Fast Food	$16,200	4 7%	0 2%
Food Servers, Nonrestaurant	$16,700	17 9%	0 9%
Dining Room and Cafeteria Attendants and Bartender Helpers	$17,000	4 6%	0 2%
Dishwashers	$16,500	5 4%	0 3%
All Other Food Preparation and Serving Related Occupations (avg all categories)	$18,000	8.3%	0.4%
Weighted Mean Annual Wage	***$19,600***	100.0%	4.8%

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc
Filename: 19035.008\SD-Medical; Compensation; 12/3/2004; dd

Occupation [3]	2003 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total Medical Workers
Building and Grounds Cleaning and Maintenance Occupations			
First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	$32,400	6 6%	0 3%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	$21,300	25 0%	1 2%
Maids and Housekeeping Cleaners	$18,200	63 9%	3.0%
All Other Building and Grounds Occupations (avg all categories)	$22,200	4.4%	0.2%
Weighted Mean Annual Wage	***$20,100***	**100.0%**	**4 6%**
Office and Administrative Support Occupations			
First-Line Supervisors/Managers of Office and Administrative Support Workers	$44,400	6 2%	0 8%
Billing and Posting Clerks and Machine Operators	$29,000	5 2%	0 7%
Bookkeeping, Accounting, and Auditing Clerks	$32,000	4 6%	0 6%
Interviewers, Except Eligibility and Loan	$25,100	7 7%	1 0%
Receptionists and Information Clerks	$23,700	7 4%	1 0%
Executive Secretaries and Administrative Assistants	$38,700	5 7%	0 7%
Medical Secretaries	$28,500	9 6%	1 3%
Secretaries, Except Legal, Medical, and Executive	$30,000	9 5%	1 3%
Office Clerks, General	$24,600	15 0%	2 0%
All Other Office and Admin Support Occupations (avg all categories)	$29,700	29.3%	3.9%
Weighted Mean Annual Wage	***$29,500***	**100.0%**	**13.2%**
			92 1%

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

[2] Occupation percentages are based on the 2002 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages have been updated to 3rd Quarter 2003. OES 2002 - San Diego MSA (San Diego County)

3 Including Occupations representing 4% or more of the major occupation group

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates Inc
Filename: 19035 008\SD-Medical; Compensation; 12/3/2004; dd

APPENDIX TABLE 9
2002 NATIONAL INDUSTRIAL / MANUFACTURING WORKER DISTRIBUTION BY OCCUPATION
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

Major Occupations (3% or more)	2002 National Industrial / Manufact. Industry Occupation Distribution	
Management Occupations	402,830	7.9%
Business and Financial Operations Occupations	255,090	5.0%
Computer and Mathematical Science Occupations	264,960	5.2%
Architecture and Engineering Occupations	597,410	11.7%
Life, Physical, and Social Science Occupations	235,800	4.6%
Office and Administrative Support Occupations	583,240	11.4%
Installation, Maintenance, and Repair Occupations	199,730	3.9%
Production Occupations	2,021,140	39.5%
Transportation and Material Moving Occupations	217,150	4.2%
All Other Industrial / Manufacturing Related Occupations	337,020	6.6%
INDUSTRY TOTAL	5,114,370	100.0%

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc
Filename: 19035 008\SD-Manufacturing; Major Occupations Matrix; 12/3/2004; dd

APPENDIX TABLE 10
AVERAGE ANNUAL COMPENSATION, 2003
INDUSTRIAL / MANUFACTURING WORKER OCCUPATIONS
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

Occupation [4]	2003 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total Industrial Workers
Management Occupations			
Chief Executives	$153,000	5.7%	0.4%
General and Operations Managers	$106,100	20.4%	1.6%
Marketing Managers	$102,300	6.3%	0.5%
Sales Managers	$97,100	5.9%	0.5%
Computer and Information Systems Managers	$94,100	6.5%	0.5%
Financial Managers	$91,400	7.2%	0.6%
Human Resources Managers	$75,300	4.3%	0.3%
Industrial Production Managers	$79,100	12.9%	1.0%
Engineering Managers	$106,700	13.9%	1.1%
All Other Management Occupations	$87,600	17.0%	1.3%
Weighted Mean Annual Wage	***$98,300***	100.0%	7.9%
Business and Financial Operations Occupations			
Purchasing Agents, Except Wholesale, Retail, and Farm Products	$53,700	18.7%	0.9%
Cost Estimators	$56,800	4.3%	0.2%
Training and Development Specialists	$50,700	4.0%	0.2%
Management Analysts	$62,800	9.8%	0.5%
Accountants and Auditors	$54,100	15.1%	0.8%
Financial Analysts	$75,500	4.8%	0.2%
All Other Business and Financial Operations Occupations (avg all categories)	$55,400	43.2%	2.2%
Weighted Mean Annual Wage	***$56,400***	100.0%	5.0%
Computer and Mathematical Science Occupations			
Computer Programmers	$69,400	8.3%	0.4%
Computer Software Engineers, Applications	$78,100	17.8%	0.9%
Computer Software Engineers, Systems Software	$77,900	15.6%	0.8%
Computer Support Specialists	$43,500	10.7%	0.6%
Computer Systems Analysts	$67,900	9.6%	0.5%
Network and Computer Systems Administrators	$61,200	5.4%	0.3%
All Other Computer and Mathematical Occupations (avg all categories)	$67,700	32.6%	1.7%
Weighted Mean Annual Wage	***$68,400***	100.0%	5.2%
Architecture and Engineering Occupations			
Aerospace Engineers	$69,800 [3]	8.2%	1.0%
Computer Hardware Engineers	$83,600	4.9%	0.6%
Electrical Engineers	$79,800	8.4%	1.0%
Electronics Engineers, Except Computer	$81,200	7.6%	0.9%
Industrial Engineers	$65,800	9.2%	1.1%
Mechanical Engineers	$69,800	10.1%	1.2%
Electrical and Electronic Engineering Technicians	$46,900	12.0%	1.4%
Industrial Engineering Technicians	$52,700	4.3%	0.5%
All Other Architecture and Engineering Occupations (avg all categories)	$64,200	35.4%	4.1%
Weighted Mean Annual Wage	***$66,400***	100.0%	11.7%
Life, Physical, and Social Science Occupations			
Biochemists and Biophysicists	$63,900	5.7%	0.3%
Medical Scientists, Except Epidemiologists	$74,800	14.7%	0.7%
Chemists	$56,800	18.5%	0.9%
Market Research Analysts	$62,700	6.5%	0.3%
Biological Technicians	$38,200	11.8%	0.5%
Chemical Technicians	$39,900	9.5%	0.4%
All Other Life Science Occupations	$56,300	33.3%	1.5%
Weighted Mean Annual Wage	***$56,300***	100.0%	4.6%

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc
Filename: 19035.008\SD-Manufacturing; Compensation; 12/3/2004; dd

Occupation [4]	2003 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total Industrial Workers
Office and Administrative Support Occupations			
First-Line Supervisors/Managers of Office and Administrative Support Workers	$44,400	5 8%	0 7%
Bookkeeping. Accounting. and Auditing Clerks	$32.000	8 3%	0 9%
Customer Service Representatives	$29.800	6 9%	0 8%
Production. Planning. and Expediting Clerks	$36.000	8 9%	1 0%
Shipping. Receiving. and Traffic Clerks	$25.300	11 8%	1 3%
Stock Clerks and Order Fillers	$23.100	6 8%	0 8%
Executive Secretaries and Administrative Assistants	$38.700	11 5%	1 3%
Secretaries. Except Legal. Medical. and Executive	$30.000	8 1%	0 9%
Office Clerks. General	$24.600	10 6%	1 2%
All Other Office and Admin Support Occupations (avg all categories)	$29,700	21.3%	2.4%
Weighted Mean Annual Wage	***$30,900***	100.0%	11.4%
Installation. Maintenance. and Repair Occupations			
First-Line Supervisors/Managers of Mechanics. Installers. and Repairers	$55.800	7 0%	0 3%
Electrical and Electronics Repairers. Commercial and Industrial Equipment	$42.400	7 1%	0 3%
Aircraft Mechanics and Service Technicians	$43.800	7 1%	0 3%
Industrial Machinery Mechanics	$41.900	10 8%	0.4%
Maintenance and Repair Workers. General	$31.300	32 7%	1 3%
Maintenance Workers. Machinery	$36.000	6 3%	0 2%
All Other Installation. Maintenance. and Repair Occupations	$36,700	29.0%	1.1%
Weighted Mean Annual Wage	***$37,700***	100.0%	3.9%
Production Occupations			
First-Line Supervisors/Managers of Production and Operating Workers	$48.700	7 1%	2 8%
Electrical and Electronic Equipment Assemblers	$22.800	9 8%	3 9%
Team Assemblers	$21.900	11 5%	4 6%
Machinists	$34.200	8 4%	3 3%
Inspectors. Testers. Sorters. Samplers. and Weighers	$31.000	6 2%	2 5%
All Other Production Occupations (avg all categories)	$26,700	57.0%	22.5%
Weighted Mean Annual Wage	***$28,200***	100.0%	39.5%
Transportation and Material Moving Occupations			
Driver/Sales Workers	$24.400	4 4%	0 2%
Truck Drivers. Heavy and Tractor-Trailer	$35.000	7 4%	0 3%
Truck Drivers. Light Or Delivery Services	$25.400	8 9%	0 4%
Industrial Truck and Tractor Operators	$28.400	13 1%	0 6%
Laborers and Freight. Stock. and Material Movers. Hand	$20.300	30 2%	1 3%
Machine Feeders and Offbearers	$19.100	6 9%	0 3%
Packers and Packagers. Hand	$17.700	15 9%	0 7%
All Transportation and Material Moving Occupations (avg all categories)	$26,000	13.3%	0.6%
Weighted Mean Annual Wage	***$23,300***	100.0%	4.2%
			93 4%

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

[2] Occupation percentages are based on the 2002 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics Wages have been updated to 3rd Quarter 2003 OES 2002 - San Diego MSA (San Diego County)

[3] Wage data for aerospace engineers was unavailable. data for mechanical engineers was substituted

4 including Occupations representing 4% or more of the major occupation group

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates. Inc
Filename: 19035.008\SD-Manufacturing; Compensation; 12/3/2004; dd

APPENDIX TABLE 11
2002 NATIONAL WAREHOUSING AND STORAGE WORKER DISTRIBUTION BY OCCUPATION
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

Major Occupations (3% or more)	2002 National Warehousing & Storage Industry Occupation Distribution	
Management Occupations	337,680	6.7%
Business and Financial Operations Occupations	153,690	3.0%
Sales and Related Occupations	1,097,850	21.8%
Office and Administrative Support Occupations	1,247,380	24.7%
Installation, Maintenance, and Repair Occupations	351,650	7.0%
Production Occupations	337,920	6.7%
Transportation and Material Moving Occupations	1,142,020	22.6%
All Other Warehousing & Storage Related Occupations	374,670	7.4%
INDUSTRY TOTAL	5,042,860	100.0%

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates. Inc
Filename: 19035 008\SD-Warehousing and Storage; Major Occupations Matrix; 12/3/2004; dd

APPENDIX TABLE 12
AVERAGE ANNUAL COMPENSATION, 2003
WAREHOUSING AND STORAGE WORKER OCCUPATIONS
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

Occupation [3]	2003 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total Warehouse / Storage Workers
Management Occupations			
Chief Executives	$153,000	6.6%	0.4%
General and Operations Managers	$106,100	41.4%	2.8%
Sales Managers	$97,100	12.5%	0.8%
Computer and Information Systems Managers	$94,100	4.4%	0.3%
Financial Managers	$91,400	8.6%	0.6%
Purchasing Managers	$79,100	4.8%	0.3%
Transportation, Storage, and Distribution Managers	$65,100	4.5%	0.3%
All Other Management Occupations	$87,600	17.2%	1.2%
Weighted Mean Annual Wage	***$100,000***	100.0%	6.7%
Business and Financial Operations Occupations			
Wholesale and Retail Buyers, Except Farm Products	$46,000	29.7%	0.9%
Purchasing Agents, Except Wholesale, Retail, and Farm Products	$53,700	6.1%	0.2%
Accountants and Auditors	$54,100	23.3%	0.7%
All Other Business and Financial Operations Occupations (avg all categories)	$55,400	40.8%	1.2%
Weighted Mean Annual Wage	***$52,200***	100.0%	3.0%
Sales and Related Occupations			
First-Line Supervisors/Managers of Non-Retail Sales Workers	$62,000	7.7%	1.7%
Parts Salespersons	$31,500	5.1%	1.1%
Retail Salespersons	$25,100	6.0%	1.3%
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	$67,400	13.8%	3.0%
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	$53,800	52.9%	11.5%
All Other Sales and Related Occupations (avg all categories)	$33,900	14.4%	3.1%
Weighted Mean Annual Wage	***$50,600***	100.0%	21.8%
Office and Administrative Support Occupations			
First-Line Supervisors/Managers of Office and Administrative Support Workers	$44,400	6.1%	1.5%
Bookkeeping, Accounting, and Auditing Clerks	$32,000	9.2%	2.3%
Customer Service Representatives	$29,800	7.9%	2.0%
Order Clerks	$28,300	6.3%	1.6%
Shipping, Receiving, and Traffic Clerks	$25,300	14.5%	3.6%
Stock Clerks and Order Fillers	$23,100	18.3%	4.5%
Secretaries, Except Legal, Medical, and Executive	$30,000	4.4%	1.1%
Office Clerks, General	$24,600	10.6%	2.6%
All Other Office and Administrative Support Occupations (avg all categories)	$29,700	22.7%	5.6%
Weighted Mean Annual Wage	***$28,300***	100.0%	24.7%
Installation, Maintenance, and Repair Occupations			
First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	$55,800	8.3%	0.6%
Computer, Automated Teller, and Office Machine Repairers	$38,400	13.7%	1.0%
Automotive Service Technicians and Mechanics	$38,000	4.5%	0.3%
Bus and Truck Mechanics and Diesel Engine Specialists	$43,800	9.8%	0.7%
Farm Equipment Mechanics	$35,900	6.6%	0.5%
Mobile Heavy Equipment Mechanics, Except Engines	$46,300	10.5%	0.7%
Maintenance and Repair Workers, General	$31,300	14.4%	1.0%
All Other Installation, Maintenance, and Repair Occupations (avg all categories)	$39,100	32.2%	2.2%
Weighted Mean Annual Wage	***$40,200***	100.0%	7.0%

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc.
Filename: 19035 008\SD-Warehousing and Storage; Compensation; 12/3/2004; dd

Occupation [3]	2003 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total Warehouse / Storage Workers
Production Occupations			
First-Line Supervisors/Managers of Production and Operating Workers	$48,700	7 9%	0 5%
Team Assemblers	$21,900	24 4%	1 6%
Machinists	$34,200	5 3%	0 4%
Welders. Cutters. Solderers. and Brazers	$32,000	5 0%	0 3%
Inspectors. Testers. Sorters. Samplers. and Weighers	$31,000	7 9%	0 5%
Packaging and Filling Machine Operators and Tenders	$20,200	8 5%	0 6%
All Other Production Occupations (avg all categories)	$26,700	40.9%	2.7%
Weighted Mean Annual Wage	***$27,700***	**100.0%**	**6 7%**
Transportation and Material Moving Occupations			
Driver/Sales Workers	$24,400	8 2%	1 8%
Truck Drivers. Heavy and Tractor-Trailer	$35,000	13 7%	3 1%
Truck Drivers. Light Or Delivery Services	$25,400	14 1%	3 2%
Industrial Truck and Tractor Operators	$28,400	12 8%	2 9%
Laborers and Freight. Stock. and Material Movers. Hand	$20,300	33 2%	7 5%
Packers and Packagers. Hand	$17,700	8 4%	1 9%
All Other Transportation and Material Moving Occupations (avg all categories)	$26,000	9.6%	2.2%
Weighted Mean Annual Wage	***$24,700***	**100 0%**	**22.6%**
			92 6%

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

[2] Occupation percentages are based on the 2002 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics Wages have been updated to 3rd Quarter 2003. OES 2002 - San Diego MSA (San Diego County)

3 Including Occupations representing 4% or more of the major occupation group

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc.
Filename: 19035.008\SD-Warehousing and Storage; Compensation; 12/3/2004; dd

APPENDIX TABLE 13
2002 NATIONAL EDUCATION WORKER DISTRIBUTION BY OCCUPATION
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

Major Occupations (3% or more)	2002 National Education Industry Occupation Distribution	
Management Occupations	537,100	4.7%
Education, Training, and Library Occupations	6,741,190	58.6%
Food Preparation and Serving Related Occupations	478,480	4.2%
Building and Grounds Cleaning and Maintenance Occupations	553,580	4.8%
Office and Administrative Support Occupations	1,237,620	10.8%
All Other Education Related Occupations	1,957,820	17.0%
INDUSTRY TOTAL	11,505,790	100.0%

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc
Filename: 19035.008\SD-Educational; Major Occupations Matrix; 12/3/2004; dd

APPENDIX TABLE 14
AVERAGE ANNUAL COMPENSATION, 2003
EDUCATION WORKER OCCUPATIONS
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

Occupation [3]	2003 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total Education Workers
Management Occupations			
Chief Executives	$153,000	4.3%	0.2%
General and Operations Managers	$106,100	9.8%	0.5%
Administrative Services Managers	$67,300	5.0%	0.2%
Financial Managers	$91,400	4.0%	0.2%
Education Administrators, Elementary and Secondary School	$91,500 [4]	37.4%	1.7%
Education Administrators, Postsecondary	$78,300	17.6%	0.8%
All Other Management Occupations	$87,600	21.8%	1.0%
Weighted Mean Annual Wage	***$91,200***	100.0%	4.7%
Education, Training, and Library Occupations			
Elementary School Teachers, Except Special Education	$49,500 [4]	21.1%	12.4%
Middle School Teachers, Except Special and Vocational Education	$48,700 [4]	8.6%	5.0%
Secondary School Teachers, Except Special and Vocational Education	$53,100 [4]	14.5%	8.5%
Teacher Assistants	$21,200 [4]	15.3%	9.0%
All Other Education, Training, and Library Occupations (avg all categories)	$45,200	40.4%	23.7%
Weighted Mean Annual Wage	***$43,900***	100.0%	58.6%
Food Preparation and Serving Related Occupations			
First-Line Supervisors/Managers of Food Preparation and Serving Workers	$27,100	10.0%	0.4%
Cooks, Institution and Cafeteria	$23,700	38.1%	1.6%
Food Preparation Workers	$18,400	17.9%	0.7%
Combined Food Preparation and Serving Workers, Including Fast Food	$16,200	12.6%	0.5%
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	$17,400	10.5%	0.4%
Dining Room and Cafeteria Attendants and Bartender Helpers	$17,000	5.4%	0.2%
All Other Food Preparation and Serving Occupations (avg all categories)	$18,000	5.5%	0.2%
Weighted Mean Annual Wage	***$20,800***	100.0%	4.2%
Building and Grounds Cleaning and Maintenance Occupations			
First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	$32,400	7.6%	0.4%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	$21,300	81.7%	3.9%
Landscaping and Groundskeeping Workers	$21,700	7.3%	0.4%
All Other Building and Grounds Occupations (avg all categories)	$22,200	3.3%	0.2%
Weighted Mean Annual Wage	***$22,200***	100.0%	4.8%
Office and Administrative Support Occupations			
First-Line Supervisors/Managers of Office and Administrative Support Workers	$44,400	4.4%	0.5%
Bookkeeping, Accounting, and Auditing Clerks	$32,000	6.1%	0.7%
Executive Secretaries and Administrative Assistants	$38,700	12.9%	1.4%
Secretaries, Except Legal, Medical, and Executive	$30,000	27.9%	3.0%
Office Clerks, General	$24,600	22.3%	2.4%
All Other Office and Admin Support Occupations (avg all categories)	$29,700	26.3%	2.8%
Weighted Mean Annual Wage	***$30,600***	100.0%	10.8%
			83.0%

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

[2] Occupation percentages are based on the 2002 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages have been updated to 3rd Quarter 2003. OES 2002 - San Diego MSA (San Diego County)

3 including Occupations representing 4% or more of the major occupation group

[4] Income distribution data was not available for these education related occupations. Income distribution was estimated assuming the 25th percentile income is 85% of the mean, and the 75th percentile income is 115% of the mean

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc
Filename: 19035.008\SD-Educational; Compensation; 12/3/2004; dd

APPENDIX TABLE 15
OCCUPATIONS INCLUDED IN ANALYSIS
HOUSING IMPACT FEE ANALYSIS
CITY OF SAN DIEGO, CA

The occupational breakdown of employment by land use is based on the 2002 National Industry-Specific Occupational Employment and Wage Estimates For these Industries/North American Industry Classification System (NAICS) codes:

Office

General Industry Categories:

Information

Finance and Insurance

Real Estate and Rental and Leasing

Professional, Scientific, and Technical Services

Management of Companies and Enterprises

Health Care and Social Assistance

Specific North American Industry Classification System (NAICS) codes:

511200 - Software Publishers
516100 - Internet Publishing and Broadcasting
517100 - Wired Telecommunications Carriers
517200 - Wireless Telecommunications Carriers (except Satellite)
517300 - Telecommunications Resellers
517900 - Other Telecommunications
518100 - Internet Service Providers and Web Search Portals
518200 - Data Processing, Hosting, and Related Services
519100 - Other Information Services

522100 - Depository Credit Intermediation
522200 - Nondepository Credit Intermediation
523900 - Other Financial Investment Activities
524100 - Insurance Carriers
524200 - Agencies, Brokerages, and Other Insurance Related Activities

531100 - Lessors of Real Estate
531200 - Offices of Real Estate Agents and Brokers
531300 - Activities related to Real Estate

541100 - Legal Services
541200 - Accounting, Tax Preparation, Bookkeeping, and Payroll Services
541300 - Architectural, Engineering, and Related Services
541400 - Specialized Design Services
541500 - Computer Systems Design and Related Services
541600 - Management, Scientific, and Technical Consulting Services
541800 - Advertising and Related Services
541900 - Other Professional, Scientific, and Technical Services

551100 - Management of Companies and Enterprises

621100 - Offices of Physicians
621200 - Offices of Dentists
621300 - Offices of Other Health Practitioners
621500 - Medical and Diagnostic Laboratories

Hotel

Specific North American Industry Classification System (NAICS) codes:

721100 - Traveler Accommodation
(gambling related occupations excluded)

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc.
Filename: 19035 008\SD-Main Model; App 15 NAICS; 12/3/2004; dd

Retail / Entertainment / Services

General Industry Categories:
- Retail Trade
- Transportation and Warehousing
- Information
- Real Estate and Rental and Leasing
- Adminstrative and Support and Waste Management and Remediation Services
- Arts Entertainment and Recreation
- Accommodation and Food Services
- Other Services

Specific North American Industry Classification System (NAICS) codes:
- 441100 - Automobile Dealers
- 441200 - Other Motor Vehicle Dealers
- 441300 - Automotive Parts, Accessories, and Tire Stores
- 442100 - Furniture Stores
- 442200 - Home Furnishings Stores
- 443100 - Electronics and Appliance Stores
- 444100 - Building Material and Supplies Dealers
- 444200 - Lawn and Garden Equipment and Supplies Stores
- 445100 - Grocery Stores
- 445200 - Specialty Food Stores
- 445300 - Beer, Wine, and Liquor Stores
- 446100 - Health and Personal Care Stores
- 447100 - Gasoline Stations
- 448100 - Clothing Stores
- 448200 - Shoe Stores
- 448300 - Jewelry, Luggage, and Leather Goods Stores
- 451100 - Sporting Goods, Hobby, and Musical Instrument Stores
- 451200 - Book, Periodical, and Music Stores
- 452100 - Department Stores
- 452900 - Other General Merchandise Stores
- 453100 - Florists
- 453200 - Office Supplies, Stationery, and Gift Stores
- 453300 - Used Merchandise Stores
- 453900 - Other Miscellaneous Store Retailers

- 492100 - Couriers
- 492200 - Local Messengers and Local Delivery

- 512100 - Motion Picture and Video Industries
- 512200 - Sound Recording Industries
- 515100 - Radio and Television Broadcasting

- 532100 - Automotive Equipment Rental and Leasing
- 532200 - Consumer Goods Rental
- 532300 - General Rental Centers
- 532400 - Commercial and Industrial Machinery and Equipment Rental and Leasing

- 561200 - Facilities Support Services
- 561300 - Employment Services
- 561400 - Business Support Services
- 561500 - Travel Arrangement and Reservation Services
- 561700 - Services to Buildings and Dwellings
- 561900 - Other Support Services

- 722100 - Full-Service Restaurants
- 722200 - Limited-Service Eating Places
- 722300 - Special Food Services
- 722400 - Drinking Places (Alcoholic Beverages)

- 811100 - Automotive Repair and Maintenance
- 811200 - Electronic and Precision Equipment Repair and Maintenance
- 811400 - Personal and Household Goods Repair and Maintenance
- 812100 - Personal Care Services
- 812200 - Death Care Services
- 812300 - Drycleaning and Laundry Services
- 812900 - Other Personal Services

Medical

General Industry Categories:
Health Care and Social Assistance

Specific North American Industry Classification System (NAICS) codes:
621400 - Outpatient Care Centers
622100 - General Medical and Surgical Hospitals
622200 - Psychiatric and Substance Abuse Hospitals
622300 - Specialty Hospitals
623100 - Nursing Care Facilities

Manufacturing / Industrial

General Industry Categories:
Manufacturing

Specific North American Industry Classification System (NAICS) codes:
312100 - Beverage Manufacturing
325400 - Pharmaceutical and Medicine Manufacturing *
331200 - Steel Product Manufacturing from Purchased Steel
332500 - Hardware Manufacturing
332700 - Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing
332800 - Coating, Engraving, Heat Treating, and Allied Activities
332900 - Other Fabricated Metal Product Manufacturing
333500 - Metalworking Machinery Manufacturing
333600 - Engine, Turbine, and Power Transmission Equipment Manufacturing
334100 - Computer and Peripheral Equipment Manufacturing
334200 - Communications Equipment Manufacturing
334300 - Audio and Visual Equipment Manufacturing
334400 - Semiconductor and Other Electronic Component Manufacturing
334500 - Navigational, Measuring, Electromedical, and Control Instruments Manufacturing
334600 - Manufacturing and Reproducing Magnetic and Optical Media
335300 - Electrical Equipment Manufacturing
335900 - Other Electrical Equipment and Component Manufacturing
336400 - Aerospace Product and Parts Manufacturing
336600 - Ship and Boat Building
336900 - Other Transportation Equipment Manufacturing
339100 - Medical Equipment and Supplies Manufacturing

541700 - Scientific Research and Development Services

Warehousing and Storage

General Industry Categories:
Wholesale Trade
Transportation and Warehousing

Specific North American Industry Classification System (NAICS) codes:
423100 - Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers
423200 - Furniture and Home Furnishing Merchant Wholesalers
423300 - Lumber and Other Construction Materials Merchant Wholesalers
423400 - Professional and Commercial Equipment and Supplies Merchant Wholesalers
423600 - Electrical and Electronic Goods Merchant Wholesalers
423700 - Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers
423800 - Machinery, Equipment, and Supplies Merchant Wholesalers
423900 - Miscellaneous Durable Goods Merchant Wholesalers
424100 - Paper and Paper Product Merchant Wholesalers
424200 - Drugs and Druggists' Sundries Merchant Wholesalers
424300 - Apparel, Piece Goods, and Notions Merchant Wholesalers
424400 - Grocery and Related Product Wholesalers
424800 - Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers
424900 - Miscellaneous Nondurable Goods Merchant Wholesalers

493100 - Warehousing and Storage

Educational

General Industry Categories:
Educational Services

Specific North American Industry Classification System (NAICS) codes:
611100 - Elementary and Secondary Schools
611200 - Junior Colleges
611300 - Colleges, Universities, and Professional Schools
611400 - Business Schools and Computer and Management Training
611500 - Technical and Trade Schools
611700 - Educational Support Services

* Pharmaceutical and Medicine Manufacturing employment was double weighted to account for the concentration of this industry in the San Diego region in comparison with its percentage of total nationwide employment for the selected manufacturing / industrial industries

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc.
Filename: 19035 008\SD-Main Model; App 15 NAICS; 12/3/2004; dd

APPENDIX TABLE 16
DENSITY ASSUMPTIONS SUPPORT INFORMATION
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

	Square Feet per Employee			
	HOSPITAL / MEDICAL	MANUFACTURING / INDUSTRIAL	WAREHOUSING / STORAGE	EDUCATIONAL
Square Feet per Employee	300	500	2000	700
Source (s)				
1. KMA Sacramento Nexus Analysis.	Range of 157 to 338, average of 207. Based on survey of 5 hospitals.		1,500 sq. ft. per employee. Based on information from the City of Sacramento.	333 sq. ft. per employee based on a survey of 20 area private schools.
2. Metro (Portland). 1999 Employment Density Study [1]	350 - health services (includes medical offices)	300 - machinery equipment; 400 - electrical machinery/equipment; 420 - primary & fabricated metals; 700 - transportation equipment	1,390 for wholesale trade. 3,290 for transportation and warehousing	740 - educational, social, membership services
3. Trip Generation - Institute for Transportation Engineers [2]	325 - hospitals; 250 - clinics	430 - general light industrial; 540 - manufacturing; 450 - industrial park	760 - warehousing	1080 - elementary school; 1650 - high school; 890 - k-12 private school; 570 - junior/community college
4. Other	KMA San Francisco Nexus Analysis. 300 sq. ft. based on UCSF medical center and Kaiser Permanente expansion EIRs.			Elementary School NOP, SD Unified School District. 920 Sq. Ft. per employee. (38,000 Sq. Ft. School, 35 employees)
				699 - mean density for training facilities / schools / child care. Employment and Parking in Suburban Business Parks - Gruen Gruen + Associates. 1986.

1 *The 1999 Employment + Density Study* prepared by the Growth Management Services Department estimated employment densities for a variety of geographic locations in the Greater Portand, OR area. For the businesses in each location, the analysis identified the number of employees per square foot by the SIC classification of the business. The study can ge found at the Metro website, www.metro-region .org.

2 The Institute for Transportation Engineers publishes a regular "Trip Generation" Study based on surveys conducted for a variety of land uses. The study is widely used by local governement planners and engineers across the county.

Source: Calculated by dividing average sq.ft. by average no. of employees.

APPENDIX TABLE 17
OWNERSHIP UNITS - AFFORDABLE PRICES AT VARYING INCOME LEVELS
HOUSING IMPACT FEE NEXUS ANALYSIS
CITY OF SAN DIEGO, CA

Percent of AMI	120.0%	130.0%	140.0%	150.0%
Family Size	3	3	3	3
Number of Bedrooms	2	2	2	2
Household Income (Rounded)	$64,700	$70,100	$75,500	$80,900
Income Allocation to Housing	35.0%	35.0%	35.0%	35.0%
Amount Available for Housing	$22,645	$24,535	$26,425	$28,315
Annual HOA/Insurance/Utilities (1)	$3,500	$3,500	$3,500	$3,500
Tax Rate	1.12%	1.12%	1.12%	1.12%
Annual Taxes (2)	$2,520	$2,766	$3,013	$3,259
Available for Mortgage	$16,625	$18,269	$19,912	$21,556
Interest Rate	6.5%	6.5%	6.5%	6.5%
Down Payment	5.0%	5.0%	5.0%	5.0%
Closing Costs	2.5%	2.5%	2.5%	2.5%
Supportable Mortgage	$219,188	$240,858	$262,527	$284,197
Add: Down Payment	$11,250	$12,350	$13,450	$14,550
(Less) Closing Costs	($5,625)	($6,175)	($6,725)	($7,275)
Maximum Unit Price (Rounded)	**$225,000**	**$247,000**	**$269,000**	**$291,000**

(1) Gross estimate.
(2) Based on affordable unit price. Property tax assessment may be based on market value of actual home.

Prepared by: Keyser Marston Associates, Inc.
19035.008\SD -active residential projects;12/3/2004jer