



MEMORANDUM

To: Edith Ramirez and John Lang, City of Morgan Hill
From: Sujata Srivastava and Heather Bromfield, Strategic Economics
Date: July 1, 2020
Subject: Economic and Fiscal Impact Analysis Memorandum Report

INTRODUCTION

Strategic Economics was retained by the City of Morgan Hill to conduct a market analysis of industrial and commercial land uses citywide, and to complete an economic and fiscal impact analysis of the proposed Morgan Hill Technology Park. The market analysis is summarized in a separate memorandum report. This memorandum report describes the results of the economic and fiscal impact analysis of the proposed Morgan Hill Technology Park project, as well as other potential development scenarios on the 60-acre site.

The proposed Morgan Hill Technology Park is located on a 60-acre site on the north side of Half Road, south side of Cochrane Road and west of the southerly extension of DePaul Drive. The proposed project would amend the General Plan Land Use Designation for a portion of the 60 acres from Commercial (30.08 acres) to Commercial/Industrial (26.6 acres) and Commercial (2.92 acres fronting Cochrane Road). According to the revised site plan submitted in December 2019, the proposed project includes 1,044,600 square feet of building area, the majority of which would be in the proposed light industrial zoning district. The Zoning designation would be amended from Planned Unit Development-CH (Highway Commercial), CO (Administrative Office), PUD-IL (Planned Unit Development-Light Industrial) to PD (Planned Development) Combining District with CH (Highway Commercial), and IL (Light Industrial).

Report Organization

This memo is divided into four sections:

1. **Fiscal Impact Analysis:** an analysis of the impact of development scenarios on the City's General Fund, which is the primary operating fund for the City
2. **Timing of Development:** a discussion of the likely timing of development given market conditions
3. **Economic Impact Analysis:** an analysis of the jobs and wages generated under each development scenario
4. **Technical Appendix:** methodology and assumptions for the fiscal and economic impact analysis

1. FISCAL IMPACT ANALYSIS

Approach and Methodology

The purpose of fiscal impact analysis is to measure the impact of development on the City's General Fund on an annual basis. The fiscal impact is calculated by estimating the increases in revenues and expenditures from new residents and employees. New residents and employees create demand for city services (such as public safety), but also provide increased sales tax, property taxes, other local taxes, and other revenues. The fiscal impact analysis calculates the net revenues (revenues minus costs) that the development is expected to generate.

For this analysis, Strategic Economics measured the ongoing operations and maintenance impacts of three development scenarios on the 60-acre site, including: 1) the proposed Morgan Hill Technology Park project, 2) a commercial/industrial scenario consistent with the existing General Plan and zoning designations, and 3) a "no-build" scenario in which the site remains vacant and undeveloped.

There are limitations to the fiscal impact analysis. It does not include estimates of one-time capital expenses such as infrastructure or facilities that may be needed to accommodate new development. The analysis also excludes impacts on special districts, enterprise funds and other agencies that are funded independently of the General Fund, such as utility districts.

Fiscal impact analyses require long-range estimates of future development under various assumptions of revenues and costs. They are a policy tool that is often used to compare the differences between alternatives. For this analysis, Strategic Economics used the best available data to generate reasonable assumptions of future revenues and expenses under different development scenarios. However, the exact timing of development is uncertain, and circumstances may change significantly in that time. The most effective use of fiscal impact analysis is to identify the elements of the development program that generate significant revenues and service costs to the City, and the magnitude of the difference between the various scenarios.

Strategic Economics updated its fiscal impact model for the City of Morgan Hill, which has been used in past analyses to measure the fiscal impacts of General Plan amendments. The fiscal impact model is "static," measuring fiscal impacts at build-out, rather than a dynamic model that shows revenues and costs for every year. The fiscal impact model is based on costs and revenues from Fiscal Year 2018-2019, which is the most recent audited budget for the City. The budget data was supplemented with information collected through interviews with City departments, and market data gathered from a variety of independent sources. All dollar estimates are presented in constant 2019 dollars.

The COVID-19 Pandemic is anticipated to have a significant impact on Morgan Hill's fiscal outlook, as is true for municipal governments across California and the U.S, but the exact revenue and cost impacts are not yet known. The data used for this analysis is based on budget actuals, rather than forecasts of future budget years. Where possible, Strategic Economics has included information from City staff on the likely effect of COVID-19 on their department budgets in the Appendix of this report.

Development Scenarios

Strategic Economics reviewed the options developed in the EIR in consultation with the City of Morgan Hill's staff to develop assumptions about potential development scenarios for the site. Figure 1 shows the development programs for the three scenarios.

- Scenario 1 represents the Morgan Hill Technology Park proposal as of February 2020. It includes 1,044,600 square feet of light industrial space within five to six separate buildings. For the purposes of this analysis, it is assumed that the light industrial space would be evenly divided into manufacturing/assembly and distribution uses. This assumption is consistent with recent development and leasing activity of light industrial space in Santa Clara County. This scenario also includes 50,000 square feet of highway commercial space, which this analysis assumes will be developed as retail.
- Scenario 2 represents an alternative development scenario that is consistent with the existing General Plan and zoning designations for the site. It includes 540,000 square feet of R&D/office space, 45,000 square feet of light industrial, 218,000 square feet of retail, and almost 306,000 square feet of administrative office.
- Scenario 3 represents a scenario in which the parcel remains vacant.

FIGURE 1: DEVELOPMENT SCENARIOS FOR FISCAL IMPACT ANALYSIS

	Total Parcel Size (Acres)	Total Parcel Size (SF)	Building SF
Site Information			
Gross Acreage	60.33		
Scenario 1: Proposed Project			
IL Industrial (Light Industrial) - R&D/Office	0	0	0
IL Industrial (Light Industrial) - Manufacturing, Assembly, Distribution	57.41	2,500,649	1,044,600
<i>Manufacturing/Assembly</i>			522,300
<i>Distribution</i>			522,300
Retail (CH - Highway Commercial)	2.92	127,195	50,000
CO Commercial (Administrative Office)	0.00	0	0
Scenario 1 Total			1,094,600
Scenario 2: No Project Existing GP/Zoning Designation Alternative			
IL Industrial (Light Industrial) - R&D/Office	28.57	1,244,509	540,000
IL Industrial (Light Industrial) - Manufacturing, Assembly, Distribution	2.18	95,004	45,000
<i>Manufacturing/Assembly</i>			22,500
<i>Distribution</i>			22,500
Retail (CH - Highway Commercial)	14.23	619,902	218,000
CO Commercial (Administrative Office)	15.35	668,428	305,965
Scenario 2 Total			1,108,965
Scenario 3: No Project/No Development			
IL Industrial (Light Industrial)	30.75	1,339,514	0
Retail (CH - Highway Commercial)	16.89	735,859	0
CO Commercial (Administrative Office)	12.68	552,471	0
Scenario 3 Total			0

Source: City of Morgan Hill, 2020; Strategic Economics, 2020.

Summary of Fiscal Impact Results

The costs, revenues, and net revenues for each of the three scenarios are presented in Figure 2 and summarized below.

- **All of the development scenarios analyzed generate a positive net fiscal impact to the City's General Fund.** In every development scenario, the revenues exceed the expenditures, creating a fiscally positive fiscal impact to the City's General Fund.
- **Strategic Economics estimates that the proposed Morgan Hill Technology Park development program (Scenario 1) generates about \$412,300 in net revenue to the City's General Fund on an annual basis.** The greatest source of revenue associated with the development proposal is sales tax (\$411,200), which is driven by anticipated business-to-business taxable sales revenues from manufacturing and assembly uses and by sales tax to be collected from new retail uses. The large number of new employees on the site would generate additional costs, especially for Police services.
- **Scenario 2 is estimated to result in a positive net fiscal impact of \$688,600 annually.** Because of the large amount of retail commercial uses and R&D uses under this scenario, Scenario 2 generates more revenue to the City on an annual basis than the other development scenarios. Scenario 2 also would have higher service costs due to the number of new employees on-site. The largest expenditures projected for this Scenario would be for the Police Department, which would require additional staffing to serve this area. However, the revenues generated are significantly higher than the expenditures. It is important to note that retail and R&D/Office buildings are consistent with the permitted uses under the current General Plan, but the amount of administrative office and retail development shown in Scenario 2 exceeds current market demand for these uses, as described in Section 2 of this report.
- **Scenario 3, which assumes that the site would remain undeveloped, generates approximately \$44,000 in net revenues annually.** The vacant site would generate about two thirds of its revenues from property taxes (including property transfer tax and property tax in-lieu of vehicle license fees). Leaving the parcel undeveloped results in no new service costs to the city.
- **The results of the analysis for Scenario 2 are sensitive to assumptions about sales tax revenues from new commercial retail.** Sales tax is the largest source of revenue for both Scenario 1 and Scenario 2. Because Scenario 2 assumes 218,000 square feet of highway commercial retail, it generates a greater amount of sales tax revenue than Scenario 1, which contains 50,000 square feet of commercial retail space. However, it is important to note that the retail industry is currently undergoing major transformations, which has been accelerated with the COVID-19 crisis. It may take time for a new retail center to be built, given the difficulty of attracting tenants in the current environment. In addition to retail store sales, both scenarios are also estimated to generate new sales tax revenues from business-to-business sales and from retail spending from new employees.
- **The major drivers of city expenses under Scenario 1 and 2 are police services, accounting for about half of new service costs.** According to the Police Department, new police officers would be needed in the area under Scenarios 1 and 2, resulting in significant new costs to the city. General government expenditures would be the second largest cost item under both scenarios and would account for roughly one third of new costs.

A detailed description of the methodology for the fiscal impact analyses can be found in the Technical Appendix A1.

FIGURE 2: COSTS AND REVENUES BY DEVELOPMENT SCENARIO

Development Program	Scenario 1	Scenario 2	Scenario 3
R&D/Office	0	540,000	0
Manufacturing/Assembly	522,300	22,500	0
Distribution	522,300	22,500	0
Retail	50,000	218,000	0
Administrative Office	0	305,965	0
Revenues			
Property Tax	\$236,500	\$297,800	\$30,000
Property Transfer Tax	\$8,600	\$10,800	\$1,100
Sales Tax	\$411,200	\$963,600	\$0
Property Tax in Lieu of VLF	\$101,100	\$127,300	\$12,800
Other Recurring Revenues	\$87,200	\$185,800	\$0
Subtotal, Revenues	\$844,700	\$1,585,300	\$43,900
Expenditures			
Police Cost	\$216,400	\$436,600	\$0
Recreation	\$21,100	\$45,000	\$0
Downtown Maint./Street Maint./Congest Mgmt.	\$21,300	\$45,400	\$0
Environmental Programs	\$3,400	\$7,100	\$0
Park Maintenance	\$14,800	\$31,500	\$0
General Government	\$155,400	\$331,100	\$0
Subtotal, Expenditures	\$432,300	\$896,700	\$0
Net Revenue	\$412,300	\$688,600	\$43,900
Net Revenue as % of Total Revenues	48.8%	43.4%	100.0%

Note: Figures may not add up due to rounding.

Source: Strategic Economics, 2020.

2. TIMING OF DEVELOPMENT

This section provides estimates on the probable timing for development for each of the development scenarios based on the results of Strategic Economics' Industrial and Commercial Market Analysis (presented in a separate memorandum report).

The horizons presented below represent the likely time frame of development given market conditions. It is assumed that Morgan Hill is unlikely to attract any new development within the next 12 to 18 months due to the severity of the COVID-19 crisis. For the purposes of this memo, "short term" is defined to mean within the next 2 to 5 years; "medium term" indicates development that could happen within the next 6 to 10 years, and "long term" is defined to indicate 10 years and more.

- **Currently, the greatest demand for space in Morgan Hill is for warehouse/distribution and manufacturing/assembly buildings, which are likely to be built in the near term.** Warehouse/distribution rents in Morgan Hill rose steadily over the last few years and brokers reported there is virtually no available building space for firms looking to expand or relocate in Morgan Hill. Additionally, speculative warehouse projects had been proposed as of Fall of 2019, indicating developer confidence that they would be able to secure tenants for new buildings. Morgan Hill is also a competitive location for manufacturing, machining, and assembly businesses. Brokers reported that vacancies for manufacturing/assembly buildings are low and rents are rising, indicating strong demand for this product, and the City is now beginning to see interest in speculative development of this building type.
- **The market demand for R&D is moderate, with development most likely to occur in the medium term.** According to knowledgeable local brokers, there is currently less demand for R&D space in Morgan Hill than for warehouse/distribution and manufacturing/assembly space.
- **New office development is likely to only occur in the medium to long term.** Morgan Hill is not currently a competitive location for traditional office uses, and rents are not sufficiently high to attract new development. Among the recently proposed development projects in Morgan Hill, there are no standalone office projects in the pipeline.
- **Morgan Hill may only see significant new retail development in the long term.** While the local retail market is stable according to recent data, the City is unlikely to see an increase in demand for additional shopping centers unless the population of residents and employees expands substantially. Additionally, the COVID-19 crisis is anticipated to have particularly profound effects for the retail sector as consumer expenditures decrease and as the transition to online sales accelerates.

3. OCCUPATION AND WAGE ANALYSIS

The development scenarios examined in the Fiscal Impact Analysis assume different building types suitable for specific industries, meaning that each development scenario would bring different types of jobs into Morgan Hill. This analysis estimates the average wages associated with job categories that are most closely associated with each building type. Strategic Economics created these estimates by examining the types of industries associated with each building type and which are likely to develop in Morgan Hill based on market factors. Strategic Economics then examined the employment groups and local wages and created an average wage that is weighted according to industry composition found in Santa Clara County. The results are presented in Figure 3, and the methodology is described in detail in Technical Appendix Section A2. Employment and Wage Analysis Methodology.

- **R&D buildings are associated with the highest average annual wages of all the building types in the development scenarios (\$104,700), followed by office uses (\$82,500).** The most likely tenants of these buildings include advanced manufacturing firms and businesses in the Professional, Scientific, and Technical industry. Wages tend to be higher for these industries because many of the jobs in these sectors require highly specialized knowledge and/or advanced degrees. In addition, adding additional R&D/Office jobs in Morgan Hill would serve to provide employment opportunities for City residents, 87 percent of whom commuted out of Morgan Hill for jobs in Silicon Valley and other communities as of 2017.¹ Providing residents with local employment opportunities would thus improve the jobs-housing balance of the city, a goal established in Morgan Hill's most recent General Plan.
- **Strategic Economics projects the average wages for jobs associated with manufacturing and assembly building to be about \$60,800.** The industry categories of businesses that would occupy manufacturing/assembly buildings include food, fabricated metal, and furniture manufacturers, along with other categories shown in Appendix Section A2. These types of firms generally offer more middle-income wages than the industry subsectors associated with advanced manufacturing, which are more closely associated with R&D buildings as described above. Similar to R&D/Office firms, manufacturing and assembly firms could provide job opportunities in engineering, management, and other occupations that match the qualifications and educational levels of many Morgan Hill residents, helping to achieve the jobs-housing balance goals set forth in Morgan Hill's General Plan.
- **Warehouse and distribution jobs are estimated to have average wages of \$66,900 on average.** Logistics firms require a wide variety of job types, including "pickers" who are responsible for retrieving and loading items in facilities and who earn relatively low wages, as well as managers and sales analysts whose earnings are significantly higher. As a result, there is a large income distribution for employment in logistics buildings, with the average wage being middle-income. (Figure 3). However, the majority of jobs in warehouse industries are in lower skilled occupations that are not closely matched to the skill levels of many Morgan Hill residents.
- **Jobs associated with retail buildings have a significantly lower wage than any other building type included in the development scenarios.** The average estimated wage for jobs associated with retail buildings, at about \$39,200, is heavily influenced by users of retail buildings in the food services and personal services industries, which include restaurants, bars, nail salons, haircutters, and laundromats.

¹ Data from the U.S. Census Bureau's Longitudinal Employer-Household Dynamics Survey.

FIGURE 3: AVERAGE WAGE FOR EMPLOYEES BY BUILDING TYPE

<u>Building Type</u>	<u>Weighted Average Wage</u>
R&D	\$104,700
Manufacturing/Assembly	\$60,800
Warehouse/Distribution	\$66,900
Retail	\$39,200
Office	\$82,500

Sources: Bureau of Labor Statistics, 2018; California Employment Development Department, 2018; Strategic Economics, 2020.

4. TECHNICAL APPENDIX: ASSUMPTIONS, DATA SOURCES, AND METHODOLOGY FOR FISCAL AND ECONOMIC IMPACT ANALYSES

This appendix describes the methodology used to conduct the fiscal impact analysis and economic impact analysis of three development scenarios for the 60-acre subject site.

A1. Fiscal Impact Analysis

Strategic Economics updated its fiscal impact model for the City of Morgan Hill, which has been used in past analyses to measure the fiscal impacts of General Plan amendments. The fiscal impact model is “static,” measuring fiscal impacts at build-out, rather than a dynamic model that shows revenues and costs for every year.

ASSUMPTIONS

GENERAL FUND IMPACT

This analysis estimated potential impacts to the City’s General Fund. There are some aspects of the City’s services that are provided outside of the General Fund; for example, Community Services receives its revenues through membership fees, and facility rentals.

The COVID-19 Pandemic is anticipated to have a significant impact on Morgan Hill’s fiscal outlook, as is true for municipal governments across California and the U.S, but the exact revenue and cost impacts are not yet known. The data used for this analysis is based on budget actuals, rather than forecasts of future budget years.

BUDGET YEAR

The analysis is based on Morgan Hill’s General Fund audited budget actuals for the 2018-2019 Fiscal Year. At the time that this analysis was conducted, this budget year was the most recent fiscal year for which budget actuals were available.

While future budget years are likely to be affected by declining revenues due to the COVID-19 crisis, this model is limited to available data from the 2018-2019 Fiscal Year, supplemented by data collected from City departments regarding the service costs related to new development.

EXISTING SERVICE POPULATION

To calculate certain costs and revenues on a per capita basis, an existing service population – or “daytime population” of residents and workers – must be established. Morgan Hill had an estimated residential population of 45,742 and 18,176 workers according to the California Department of Finance (January 1, 2019) and the Quarterly Census of Employment and Wages (2nd quarter of 2019), respectively.

In conformity with industry-standard practices the service population was developed using the existing residential and worker population in Morgan Hill. Each worker is counted as producing 0.50 of the impacts of a resident for analytical purposes, since workers generally spend less time in the city, and consume fewer services compared to residents (library, parks, recreation, etc.). This also falls within

industry-standard practices of counting employees as between 0.30 to 0.50 of a resident for service needs.

FIGURE 4: 2019 SERVICE POPULATION CALCULATIONS

Current Service Population	
Residents	45,742
Employees	18,176
Employee Factor	0.50
Total Service Population	54,830

Sources: California Department of Finance Table E-5, 2019; QCEW, 2019 Q2.

EMPLOYEE DENSITY BY BUILDING TYPE

Figure 5 shows the square feet per employee assumptions which were used to calculate the workers associated with R&D, manufacturing and assembly, warehouse and distribution, retail, and office buildings. Strategic Economics used industry-accepted standards and, where available, employee density data specific to the local market to develop these assumptions.

FIGURE 5: SQUARE FEET PER EMPLOYEE BY BUILDING TYPE

Building Type	Sq Ft per Employee
R&D/Office	300
Manufacturing/Assembly	500
Warehouse/Distribution	1,000
Retail	450
Office (Administrative)	250

Source: Strategic Economics, 2020.

SERVICE POPULATION FOR DEVELOPMENT SCENARIOS

Figure 6 shows the projected service populations associated with each land use, derived from the development program shown in Figure 1, the employment density assumptions shown in Figure 5, and the employee factor discussed above.

FIGURE 6: ESTIMATED EMPLOYEES AND SERVICE POPULATION BY BUILDING TYPE FOR DEVELOPMENT SCENARIOS

Land Use	Scenario 1	Scenario 2	Scenario 3
Light Industrial Employees			
R&D/Office	0	1,800	0
Manufacturing/Assembly	1,045	45	0
Warehouse/Distribution	522	23	0
Retail Employees	111	484	0
Commercial Office Employees	0	1,224	0
Total Employees	1,678	3,576	0
Employee Factor	0.50	0.50	0.50
Total Service Population	839	1,788	0

Source: Strategic Economics, 2020.

LAND USE ASSUMPTIONS

Value of Commercial Property: Property tax, property transfer tax, and property tax in lieu of Vehicle License Fees (VLF) are all determined by the assessed value of property. Strategic Economics estimated the assessed value of each commercial building type used in the development scenarios using the income capitalization approach. In this approach to property valuation, a building’s anticipated operating expenses are removed from anticipated operating revenues to derive net operating income; this net operating income is then divided by a “capitalization rate,” which is the ratio of net operating income to property sale value expected in the general real estate market. These calculations are shown in Figure 7.

FIGURE 7: VALUE ASSUMPTIONS BY BUILDING TYPE

	Unit	R&D/ Office	Manufacturing/ Assembly	Warehouse/ Distribution	Retail	Administrative Office
Monthly Rent [1]	Per SF	\$1.24	\$1.25	\$0.90	\$2.45	\$2.06
Vacancy	Percent	5.0%	5.0%	5.0%	5.0%	5.0%
Non-Reimbursable Expenses	Per Sf/ Percent [2]	\$0.16	\$0.16	\$0.16	10.0%	30.0%
Capitalization Rate	Percent	5.00%	5.00%	5.00%	7.00%	6.50%
Capitalized Value	Per SF	\$244.34	\$247.00	\$167.20	\$357.24	\$247.40

[1] Rents are reported on NNN for all building types except for Office, for which gross rents are reported.

[2] Non-reimbursable expenses are reported as monthly per sf values for R&D/Office, Manufacturing/Assembly, and Warehouse/Distribution; and on a percent basis for Retail and Administrative Office.

Sources: Building Owners and Managers Association, 2018-2020; CBRE North America Cap Rate Survey, H2 2019; CoStar, 2020; Strategic Economics, 2020.

Value of Vacant Property: For Scenario 3, Strategic Economics used the assessed value of the parcels on the proposed Morgan Hill Technology Park site as the total property value on which taxes would be assessed. The total assessed value was \$29,707,947 according to Morgan Hill city staff.

PROPERTY OCCUPANCY AND TURNOVER ASSUMPTIONS

Figure 8 shows land use assumptions including holding period (sales turnover), vacancy rates, and occupancy rates, all defined below. These figures were multiplied by the estimated property value per unit or square foot of anticipated new development.

Holding period and Turnover Rate: Turnover rates are used to estimate property transfer taxes that the City earns when a property sale occurs. Turnover rates are calculated using the holding period, which is the length of time between changes in ownership of property. Strategic Economics assumed a 15-year holding period for commercial properties, based on standard real estate industry assumptions, which is equivalent to an annual turnover rate of 7 percent.

Occupancy and Vacancy: Occupancy and vacancy rates are used to determine the actual revenues and costs generated by properties, given that buildings are not usually fully occupied. Unoccupied spaces would not generate workers, nor, on the revenue side, retail or business-to-business sales (where applicable). The analysis applied 5 percent vacancy rates for all types of commercial development, which are indicative of a healthy real estate market.

FIGURE 8: ASSESSED VALUE, OCCUPANCY, AND TURNOVER ASSUMPTIONS BY BUILDING TYPE

Land Use	Estimated Value Per Sq. Ft.	Holding Period (years)	Vacancy Rate	Occupancy Rate	Turnover Rate Per Year
R&D/Office	\$244	15	5%	95%	7%
Manufacturing and Assembly	\$247	15	5%	95%	7%
Warehouse/Distribution	\$167	15	5%	95%	7%
Retail	\$357	15	5%	95%	7%
Commercial Office	\$247	15	5%	95%	7%

Sources: City of Morgan Hill, 2020; Strategic Economics, 2020.

REVENUE ESTIMATES

This section summarizes assumptions for property tax, property transfer tax, property tax in lieu of vehicle license fees, and sales tax. Property tax revenues are calculated for secured property only (real estate); therefore, these estimates of revenue are conservative.

PROPERTY TAX, PROPERTY TRANSFER TAX, AND PROPERTY TAX IN LIEU OF VEHICLE LICENSE FEES (VLF)

Annual property tax revenue: Per California’s Proposition 13, the base property tax rate in Morgan Hill is one percent of assessed property value. The apportionment of the one percent revenue varies by jurisdiction and by tax rate areas in each jurisdiction, including for special districts; for the purposes of this analysis, Strategic Economics examined the overall share of Morgan Hill’s one percent that the city receives on average. Morgan Hill receives 10.1 percent of the one percent tax revenue (after accounting for shifts to the Educational Revenue Augmentation Fund), per data provided by the City’s Finance Department. The property tax rate was applied to estimated assessed values of new development on the site to determine property tax revenue, as shown in Figure 9.

FIGURE 9: ESTIMATED ANNUAL PROPERTY TAX REVENUE BY DEVELOPMENT SCENARIO

Land Use	Scenario 1	Scenario 2	Scenario 3
R&D/Office	\$0	\$133,263	\$0
Manufacturing and Assembly	\$130,298	\$5,613	\$0
Distribution	\$88,202	\$3,800	\$0
Retail	\$18,041	\$78,658	\$0
Administrative Office	\$0	\$76,453	\$0
Vacant	\$0	\$0	\$30,005
Total Property Tax Revenue	\$236,541	\$297,786	\$30,005

Source: Strategic Economics, 2020.

Property Transfer Tax: As a General Law city, Morgan Hill receives 0.055 percent of the assessed value of properties sold in the city. Annual property transfer tax revenue was calculated by multiplying the assessed value by the average turnover rate (to estimate the value of property sold annually), and then by the transfer tax rate (Figure 10).

FIGURE 10: ESTIMATED ANNUAL PROPERTY TRANSFER TAX REVENUE BY DEVELOPMENT SCENARIO

Land Use	Scenario 1	Scenario 2	Scenario 3
R&D/Office	\$0	\$4,838	\$0
Manufacturing and Assembly	\$4,730	\$204	\$0
Distribution	\$3,202	\$138	\$0
Retail	\$655	\$2,856	\$0
Administrative Office	\$0	\$2,776	\$0
Vacant	-	-	\$1,089
Total General Fund Transfer Tax Revenues	\$8,587	\$10,811	\$1,089

Source: Strategic Economics, 2020.

Property tax in-lieu of Vehicle License Fees (VLF): Since 2004, the State of California has swapped city and county vehicle license fee revenues for additional property tax revenues. The property tax payment provided in-lieu of the VLF grows proportionally to a city’s assessed value. Figure 11 shows the calculation of property tax in-lieu of VLF revenue per dollar of assessed value, based on Morgan Hill’s total estimated assessed value in FY 2018-2019 and the in-lieu payment from the State for the FY 2018-2019, and Figure 12 shows the estimated property tax in-lieu of VLF that is anticipated for each land use on the site.

FIGURE 11: PROPERTY TAX IN LIEU OF VEHICLE LICENSE FEE CALCULATIONS

Total Estimated Citywide Assessed Value (FY 2018-19)	\$9,069,849,305
Citywide VLF Property Tax In-lieu Revenue (FY 2018-19)	\$3,916,899
<u>VLF Property Tax In-lieu Per \$1 Assessed Value</u>	<u>\$0.000432</u>

Sources: City of Morgan Hill Fiscal Year 2018-2019 Audited Actuals; Morgan Hill Fiscal Year 2018-2019 Comprehensive Annual Financial Report; Strategic Economics, 2020.

FIGURE 12: ESTIMATED ANNUAL PROPERTY TAX IN LIEU OF VEHICLE LICENSE FEE REVENUE BY DEVELOPMENT SCENARIO

Land Use	Scenario 1	Scenario 2	Scenario 3
R&D/Office	\$0	\$56,981	\$0
Manufacturing and Assembly	\$55,713	\$2,400	\$0
Distribution	\$37,714	\$1,625	\$0
Retail	\$7,714	\$33,633	\$0
Administrative Office	\$0	\$32,690	\$0
Vacant	\$0	\$0	\$12,830
Total General Fund VLF Revenues	\$101,141	\$127,328	\$12,830

Source: Strategic Economics, 2020.

SALES TAX

Anticipated sales tax revenues reflect the revenues generated by taxable purchases that the new worker population is expected to make in Morgan Hill, purchases that will occur in new retail locations, and taxable sales that businesses will make as they sell products to other firms. These estimates were generated by using existing taxable sales data for the City available from the California Department of Tax and Fee Administration.

Taxable Sales Assumptions: Figure 13 shows the taxable sales assumptions used to estimate sales tax revenues for the development scenarios, which are described below.

- **Employee per capita sales:** Based on 2018 taxable retail sales revenues in Morgan Hill, Strategic Economics estimated the per capita taxable sales generated per resident. Based on a review of available data from the International Council of Shopping Centers, Strategic Economics estimated that worker spending would be approximately 25 percent of resident spending, or \$3,811 annually per worker.
- **Business-to-business sales:** Manufacturing, assembly, R&D, and office-based firms generate sales tax when they sell products to other businesses. In order to estimate business-to-business taxable sales, Strategic Economics divided the value of the City's Business-to-Business taxable sales by the number of square feet of R&D, office, and industrial inventory (excluding warehouse buildings) in 2018 to develop an estimate of approximately \$44 in taxable sales per building square foot.
- **Retail store sales:** According to the California Department of Tax and Fee Administration taxable sales data and CoStar estimates of retail space in the city, Morgan Hill stores had taxable sales of approximately \$297 per square feet of retail space.

Calculating sales tax revenue: Morgan Hill receives approximately one percent of taxable sales made in the city. The sales tax revenues generated by each scenario were calculated as follows:

- Employee per capita sales were calculated by multiplying the number of new retail square feet in each scenario by the per capita taxable sales value of \$3,811, and then by one percent.
- Business-to-business sales tax revenues were calculated by multiplying the square feet of R&D/Office and Manufacturing/Assembly in each development scenario by the business-to-business per-square-foot assumption, and then by one percent.
- Retail sales tax revenues were calculated by multiplying the square feet of new retail space in each development scenario by the retail per-square-foot, and then by one percent.

The results of these calculations are presented in Figure 14.

FIGURE 13: TAXABLE SALES ASSUMPTIONS

Assumption Type	Taxable Sales
Employees (Per Capita Sales)	\$3,811
Business-to-Business (Per Sq. Ft. of R&D/Office and Manufacturing/Assembly Space)	\$44
Retail Store (Sales Per Sq. Ft. of Retail Space)	\$297

Sources: California Department of Tax and Fee Administration, 2018; Costar, 2018; Strategic Economics, 2020.

FIGURE 14: ESTIMATED ANNUAL SALES TAX REVENUE BY DEVELOPMENT SCENARIO

General Fund Sales Tax Revenues	Scenario 1	Scenario 2	Scenario 3
Employee Spending	\$31,974	\$68,140	\$0
Business-to-Business Sales (For new R&D/Office and Manufacturing/Assembly Building Space Only)	\$230,867	\$248,637	\$0
Retail Store Sales	\$148,354	\$646,823	\$0
Total General Fund Sales Tax Revenues	\$411,195	\$963,599	\$0

Sources: California Department of Tax and Fee Administration, 2018; Costar, 2018; Strategic Economics, 2020.

OTHER RECURRING REVENUES

Calculating other revenue per capita: Strategic Economics worked with the City's Finance Department to determine which remaining General Fund revenues are variable (i.e., would increase on a per capita basis as new employees are added) as shown in Figure 15.

For the variable revenue sources, Strategic Economics applied a service population factor to each revenue category, representing the relative proportion of revenues attributable to new employees (0.50). These revenue categories include transient occupancy taxes, the public safety sales tax, franchise fees, licenses and permits, fines and penalties, intergovernmental revenues and transfers, rental and interest income, and charges for services. Figure 15 shows the per capita, variable revenue generated by employees, which totals \$51.96 per employee annually.

The results of the estimates for additional recurring revenues for each development scenario are shown in Figure 16.

FIGURE 15: OTHER RECURRING REVENUE ASSUMPTIONS

	Revenue (2018-19 Audited)	% Variable	Variable Revenues	Service Pop. Factor (Employees)	Revenue Per Employee
RDA Pass-Through	\$431,688	100%	\$431,688	0.50	\$3.94
Transient Occupancy Taxes	\$2,893,133	0%	\$0	0.50	\$0.00
Franchise (Refuse, Cable, PG&E)	\$2,322,186	100%	\$2,322,186	0.50	\$21.18
Public Safety Sales Tax	\$404,135	100%	\$404,135	0.50	\$3.69
Business License	\$201,762	0%	\$0	1.00	\$0.00
Other Permits	\$46,736	100%	\$46,736	0.50	\$0.43
Parking Enforcement	\$70,186	100%	\$70,186	0.50	\$0.64
City Code Enforcement	\$102,694	100%	\$102,694	0.50	\$0.94
Motor Vehicle In-Lieu	\$21,366	100%	\$21,366	0.50	\$0.19
Other Rev.-Other Agencies	\$1,001,432	0%	\$0	0.50	\$0.00
Gen Admin Overhead	\$1,706,112	100%	\$1,706,112	0.50	\$15.56
Other Charges for Current Services	\$592,633	100%	\$592,633	0.50	\$5.40
Interest Earnings	\$313,142	0%	\$0	0.50	\$0.00
Other Rentals	\$205,828	0%	\$0	0.50	\$0.00
Miscellaneous	\$885,932	0%	\$0	0.50	\$0.00
Fire Fees	\$192,218	0%	\$0	0.50	\$0.00
Total Per Employee Revenues					\$51.96

Note: Does not include revenues analyzed in departmental case studies.

Sources: City of Morgan Hill Fiscal Year 2018-2019 Audited Actual Budget; Strategic Economics, 2020.

FIGURE 16: ESTIMATED OTHER RECURRING REVENUES BY DEVELOPMENT SCENARIO

	Scenario 1	Scenario 2	Scenario 3
New Employees	1,678	3,576	0
Increase in Net General Fund Revenues	\$87,186	\$185,792	\$0

Source: Strategic Economics, 2020.

EXPENDITURE ESTIMATES

Strategic Economics worked with staff in Morgan Hill’s Police Department, Community Services Department, and Finance Department to estimate the annual service impact of the growth envisioned under the different development scenarios. A “case study” approach was used to estimate expenses incurred for the Police Department and Community Services departments, since these activities would be directly affected by a significant growth in service population at the subject site. Growth of other expenses, which are more likely to increase incrementally with population growth, were estimated on a per capita basis. Notably, Morgan Hill’s Development Services Department, which includes planning, land development engineering, housing, building, and several other divisions, is not funded by the General Fund, and was therefore excluded from the analysis.²

² While the Development Service Division is currently funded out of the City’s Development Services Fund, the FY 201818-19/2019-20 Budget reports that the fund balance has decreased considerably over the most recent fiscal years and that if another funding source is not identified, Development Services will require General Fund support starting in FY 2021-22.

POLICE DEPARTMENT

To generate estimates of the General Fund costs associated with increased police service, the Morgan Hill Police Department provided information on the anticipated new service demands associated with new employees for each scenario. Police Department staff estimated the additional Field Operations costs for Scenarios 1 and 2. For Scenario 1, the department estimates that one new full-time equivalent (FTE) police officer would be needed to handle additional service needs. In Scenario 2, the greater service population is estimated to require two new FTE officers. As of FY 2018-2019 the full cost of a new FTE was \$187,290 including salaries and benefits (Figure 17).

For other Police Department divisions, Strategic Economics estimated additional police expenses on the basis of maintaining funding per call for service, a common means of estimating additional police department expenses incurred as a result of service population increases. This methodology – vetted by Police Department staff – is based on the assumptions and calculations shown in Figure 18.

The assumptions used for the Police Department's Expenditures are presented in Figure 17 and are listed below.

Variable expense assumption: After consultation with the Police Department, Strategic Economics assumed that expenditures in all police divisions are variable, meaning that they are likely to increase as calls for service increase.

Offsetting program revenues: Upon consultation with the Police and Finance Departments, Strategic Economics subtracted offsetting revenues from the state of California's Supplemental Law Enforcement Grant to arrive at the Police Department's net variable general fund expenditure in FY 2018-2019.

Cost per call assumption: Morgan Hill's Police Department reported that it received approximately 36,094 calls for service in FY 2018-19. Upon consultation with the Department, Strategic Economics divided the number of calls for service into the net variable general fund expenditure to calculate the cost of each call of service per employee (\$208). Based on the current service population, Strategic Economics estimated that the Police Department receives approximately 0.08 calls per employee, which were multiplied by the number of new employees estimated for each scenario.

FIGURE 17: POLICE DEPARTMENT EXPENSE ASSUMPTIONS

Item	Cost	Percent Variable	Variable Cost
General Fund Expenditures			
PD Administration	\$1,334,303	100%	\$1,334,303
PD Support Services	\$2,242,270	100%	\$2,242,270
PD Emergency Services	\$181,703	100%	\$181,703
PD Special Operations	\$2,266,132	100%	\$2,266,132
Dispatch Services	\$1,615,744	100%	\$1,615,744
Subtotal Expenditures			\$7,640,152
Offsetting Program Revenues			
Supplemental Law Enforcement Safety Grant	\$140,836	100%	\$140,836
Subtotal Offsetting Revenues			\$140,836
Net Variable General Fund Expenditures			\$7,499,316
Annual Estimated Calls for Service			36,094
Average Net General Fund Cost per Call			\$208
Current Resident Population			45,742
Current Employee Population			18,176
Employee Factor			0.50
Total Service Population			54,830
Calls per Resident			0.66
Calls per Employee			0.08
Field Operations Division Expenditure Assumptions			
Cost per FTE Field Officer			\$187,290

Sources: City of Morgan Hill Police Department, 2020; City of Morgan Hill FY 2017-2018 Year-End Budget; Strategic Economics, 2020.

FIGURE 18: ANNUAL POLICE DEPARTMENT SERVICE AND EXPENDITURE ESTIMATES

	Scenario 1	Scenario 2	Scenario 3
Cost Increase for Non-Field Operations Divisions			
New Employees	1,678	3,576	0
Total New Calls from Employees	140	298	0
Cost of New Calls	\$29,100	\$62,012	\$0
Field Operations Division			
New Field Officers Needed	1.00	2.00	0
Cost of New Officer(s)	\$187,290	\$374,580	
Increase in Net General Fund Expenditures	\$216,390	\$436,592	\$0

Sources: Strategic Economics, 2020.

COMMUNITY SERVICES

Community Services Department’s functions include recreation programs, street and congestion management, environmental programs, and cable television customer service support. The assumptions used to calculate the new costs associated with these programs under the development scenarios are shown in Figure 19

Variable expense assumptions: Based on discussions with the Community Services and Finance Departments, all expenditures except the Cable TV program were assumed to be variable, meaning that they are likely to increase as the service population increases. (The Cable TV program is funded by payments from the franchised cable provider and the city’s site licenses with cell phone companies.)

Offsetting program revenues: The Community Services Department has historically operated many of its programs, particularly its recreation programs, under a cost recovery model where costs are offset by user fees and other revenues. In order to reflect these offsets, program revenues, grants, and transfers were subtracted from the department’s general fund expenditures to arrive at net General Fund expenditure estimates for each function.³

Per capita methodology: Based on conversations with the Community Services and Finance Departments, the net variable General Fund expenditures are assumed to increase on a per capita basis as new residents and employees are added in the development scenarios. The “per capita” method determines the cost per additional employee by dividing relevant total costs by the City’s current service population, resulting in a cost per capita for each cost item. Each employee is equivalent to 0.5 resident in terms of the service impacts.

It should be noted that while these cost estimates are based on the FY 2018-2019 budget, the Community Services Department anticipates that the COVID-19 crisis will result in changes to the

³ Offsetting revenues for the Downtown Maintenance, Streets Maintenance, and Congestion Management divisions include funds from the City’s Sewer and Water Funds and Streets Fund. The Sewer and Water funds are Enterprise Funds that do not fluctuate as a function of the City’s service population, and consequently they are not included as offsetting revenues for these divisions. Similarly, the Street Maintenance funding is not included as an offsetting revenue for these divisions because the Streets Fund is primarily funded by gas taxes that are allocated to Morgan Hill in proportion to its residential population, and increases in the number of employees will not impact the gas taxes that the City receives.

Economic and Fiscal Impact Analysis Memo

department's costs and revenues. The Department is projecting a 2.5 to 5.0 percent increase in the Recreation Division's total costs due to new cleaning and maintenance costs. Community Services staff are also projecting that its revenues will decrease as households suspend their memberships.

FIGURE 19: COMMUNITY SERVICES DEPARTMENT ASSUMPTIONS

	FY 2018- 2019 Audited Actuals	% Variable	Variable Cost	Employee Service Pop. Factor	Cost/ Revenue Per Employee
Recreation and Community Services					
General Fund Expenditures					
Membership and Program Services	\$6,208,067	100%	\$6,208,067		
Facility Services	\$1,349,981	100%	\$1,349,981		
Community Services	\$611,412	100%	\$611,412		
Total General Fund Expenditures	\$8,169,460	100%	\$8,169,460	0.50	\$74.50
Offsetting Revenues					
RCSD Programs	\$6,324,724	100%	\$6,324,724	0.50	\$57.68
Facility Rentals	\$928,474	50%	\$464,237	0.50	\$4.23
Total Offsetting Revenues	\$7,253,198		\$6,788,961		\$61.91
Net Variable General Fund Expenditures			\$1,380,499		\$12.59
Downtown Maint./Street Maint./Congest Mgmt.					
General Fund Expenditures					
Street Maintenance	\$2,413,622	50%	\$1,206,811		
Downtown Maintenance	\$318,421	50%	\$159,211		
Congestion Management	\$51,432	50%	\$25,716		
Total General Fund Expenditures	\$2,783,475		\$1,391,738	0.50	\$12.69
Offsetting Revenues					
Street Maintenance	\$738,968	0%	\$0	0.50	\$0.00
Sewer/Water	\$698,760	0%	\$0	0.50	\$0.00
Total Offsetting Revenues			\$0		\$0.00
Net Variable General Fund Expenditures			\$1,391,738		\$12.69
Environmental Programs					
General Fund Expenditures	\$224,429	100%	\$224,429	0.50	\$2.05
Offsetting Revenues					
Waste tipping fees	\$95,000	0%	\$0	0.50	\$0.00
Recycling (State of CA)	\$11,000	50%	\$5,500	0.50	\$0.05
Service contract (Gilroy)	\$34,000	0%	\$0	0.50	\$0.00
Total Offsetting Revenues	\$106,000		\$5,500		\$0.05
Net Variable General Fund Expenditures			\$218,929		\$2.00
Cable TV					
General Fund Expenditures	\$21,861	0%	\$0	0.50	\$0.00
Total					
General Fund Expenditures			\$9,785,627		\$89.24
Offsetting Revenues			\$6,794,461		\$61.96
Net Variable General Fund Expenditures			\$2,991,166		\$27.28

Sources: City of Morgan Hill FY 2017-2018 Audited Actuals; Strategic Economics, 2020.

Calculation of new expenses: The net variable General Fund expenditures costs per capita are multiplied by the number of new residents and employees in each scenario to determine the total new costs incurred by the growing service population (Figure 20).

FIGURE 20: ANNUAL ESTIMATED COMMUNITY SERVICES EXPENDITURES BY DEVELOPMENT SCENARIO

	Scenario 1	Scenario 2	Scenario 3
New Employees	1,678	3,576	0
Increase in Net General Fund Expenditures			
Recreation and Community Services	\$21,124	\$45,015	\$0
Downtown Maint./Street Maint./Congest Mgmt.	\$21,296	\$45,382	\$0
Environmental Programs	\$3,350	\$7,139	\$0
Cable TV	\$0	\$0	\$0
Total Community Services Dept (Excluding Park Maintenance)	\$45,771	\$97,536	\$0

Source: Strategic Economics, 2020.

PARKS

The Park Maintenance Division of Morgan Hill’s Community Services Department is responsible for maintaining approximately 65 acres of maintained parks, including city parks, bicycle trails, and the Civic Center. The assumptions used to calculate the park maintenance impacts are presented in Figure 21.

Park maintenance cost per acre assumption: The total cost per acre for park maintenance in FY 2018 - 2019 was \$14,908.

Parks service ratio assumption. Morgan Hill’s 65 acres of maintained parks serve a service population of 54,830, at a ratio of 1.18 acres per 1,000 service population. Strategic Economics assumed that this same service ratio would be maintained as new employees are added to the service population.

FIGURE 21: PARKS MAINTENANCE COST ASSUMPTIONS

Item	
Park Maintenance Cost per Acre	\$14,908
Current Maintained Park Acreage*	64.76
Current Total Service Population (Employees and Residents)	54,830
Current Parks Service Ratio (acres per 1000 service population)	1.18

Notes: Does not include open space or HOA-owned and managed parks. Analysis assumes that parks provided to serve the new service population are maintained by the city.

Sources: City of Morgan Hill Community Services Department, 2020; Strategic Economics, 2020.

FIGURE 22: ANNUAL ESTIMATED PARKS EXPENDITURES BY DEVELOPMENT SCENARIO

Land Use	Scenario 1	Scenario 2	Scenario 3
New Service Population	839	1,788	0
New Parks Required (acres) -- acres per 1,000 service population	0.99	2.11	0.00
New Park Maintenance Expenditures -- acres per 1,000 service population	\$14,773	\$31,483	\$0.00

Source: Strategic Economics, 2020.

OTHER RECURRING COSTS

Strategic Economics applied a per capita model to estimate other departmental General Fund expenditures, as shown in Figure 23. As with the per capita revenues, Strategic Economics applied a percent variable factor to each expense category, representing the relative proportion of expenses attributable to new employees. The value of the variable costs was multiplied by this service population factor (0.5 for employees), and then divided by the current total employee population in order to generate an estimate of the current total costs per capita by expense category. Finally, these per capita factors were multiplied by the respective new service population in Morgan Hill to arrive at additional costs associated with residential and worker growth, as shown in Figure 24.

Fire Department costs: The City of Morgan Hill maintains a contract with CAL FIRE, the state agency that is responsible for staffing the City’s Fire Department. While the terms of the contract do not directly link growth in the service population to growth in expenditures for fire protection, the Finance Department has indicated that recent growth in the number of calls for service has resulted in an unmet funding need to staff Morgan Hill’s Fire Department at the level needed to achieve desired standards of coverage. Further growth of the service population at the proposed Morgan Hill Technology Park site is likely to result in a gradual increase in calls for service, which would contribute to existing service needs that would eventually be reflected in the cost of the City’s contract with CAL FIRE.

FIGURE 23: OTHER RECURRING COSTS ASSUMPTIONS

	Expenditures (FY 2018-2019)	% Variable	Variable Cost	Service Pop. Factor (Employees)	Expenditures Per Employee
City Council	\$303,085	0%	\$0	0.50	\$0.00
City Attorney	\$642,631	100%	\$642,631	0.50	\$5.86
City Manager	\$404,906	100%	\$404,906	0.50	\$3.69
Human Resources	\$817,354	100%	\$817,354	0.50	\$7.45
Finance	\$1,636,932	100%	\$1,636,932	0.50	\$14.93
Fire	\$5,901,969	100%	\$5,901,969	0.50	\$53.82
Code Compliance	\$155,870	100%	\$155,870	0.50	\$1.42
Council Services and Records Management	\$594,234	100%	\$594,234	0.50	\$5.42
Elections	\$147,771	0%	\$0	0.50	\$0.00
Economic Development	\$787,257	0%	\$0	0.50	\$0.00
Total Per Employee Expenditures					\$92.59

Sources: City of Morgan Hill Fiscal Year 2019-2018 Year-End Budget; Strategic Economics, 2020.

FIGURE 24: ANNUAL ESTIMATED OTHER RECURRING COSTS

	Scenario 1	Scenario 2	Scenario 3
New Employees	1,678	3,576	0
Per Employee Expenditures	\$92.59	\$92.59	\$92.59
Increase in Net General Fund Expenditures	\$155,374	\$331,099	\$0

Source: Strategic Economics, 2020.

A2. Employment and Wage Analysis Methodology

The employment and wage analysis provides an approximate average wage associated with each potential land use and building type for the three development scenarios.

Data sources that were referenced for this analysis include County Business Patterns, the Quarterly Census of Employment and Wages, the Bureau of Labor Statistics' Industry and Occupation Matrix, and Occupational and Employment Statistics data hosted by the California Employment Development Department.

The following describes the steps in the methodology.

STEP 1. DEFINE INDUSTRIES ASSOCIATED WITH EACH BUILDING TYPE

For each type of development (R&D/office, manufacturing/assembly, warehouse/distribution, office, and retail) Strategic Economics selected the types of industries that would be most likely to occupy the buildings. The analysis was based on a review of the types of industries present in Morgan Hill and Santa Clara County, and recent leasing activity in the City.

- **R&D/Office:** Strategic Economics assumed the businesses occupying R&D buildings would be in the advanced manufacturing, scientific research, and computer systems design industries. Advanced manufacturing industries already have an established presence in Morgan Hill, and other types of scientific research and computer systems design industries are heavily concentrated in San Jose and the greater Silicon Valley, and could be potential tenants for new buildings in Morgan Hill, particularly if they are priced out of other higher cost cities.
- **Manufacturing/Assembly:** The Manufacturing sector includes a wide array of subsectors ranging from heavy industrial uses to light industrial manufacturing. Only a subset of manufacturing industry subsectors are permitted under the City's light industrial zoning designation. To identify appropriate manufacturing subsectors that are likely to locate in Morgan Hill, Strategic Economics analyzed the City's existing manufacturing businesses using employment data from the U.S. Census Bureau's County and Zip Code Business Patterns datasets. The sector includes food and beverage manufacturing, fabricated metal, machinery, furniture, plastics, and other types of manufacturing activities.
- **Warehouse/Distribution:** Warehouse and distribution space is most likely to be occupied by industries in the Wholesale Trade, Transportation, and e-commerce sectors.
- **Office:** Traditional office buildings are assumed to include industries in the Finance, Insurance, and Real Estate sectors, business services, and management (corporate offices), in addition to medical offices.
- **Retail:** Retail building tenants could potentially include all retail store types, as well as restaurants and personal services (i.e. nail salons, haircutters, and laundromats).

The full list of industries that correspond to each of the building types is shown below in Figure 25. This table also indicates the number of jobs in Santa Clara County for each of these industries, and each industry's share of the respective building types' total employment.

FIGURE 25: INDUSTRY NAMES AND EMPLOYMENT TOTALS FOR BUILDING TYPES IN DEVELOPMENT PROGRAMS

Building Type	NAICS Codes	Industry Name	Annual Average Employment, Santa Clara County	Share of Employment in Santa Clara County
R&D	325	Chemical Manufacturing (Resin, Rubber, and Synthetic Fibers; and Pharmaceutical Manufacturing)	3,914	2%
	334	Computer and Electronic Product Manufacturing	117,083	50%
	335	Electric Equipment, Appliance, and Component Manufacturing	4,470	2%
	336	Transportation Equipment Manufacturing	5,778	2%
	3391	Medical Equipment and Supplies Manufacturing	4,047	2%
	5415	Computer Systems Design and Related Services	81,472	34%
	5417	Scientific Research and Development Services	19,473	8%
		Total		236,237
Manufacturing/ Assembly	311	Food Manufacturing	3,330	11%
	312	Beverage and Tobacco Product Manufacturing	1,167	4%
	313	Textile Mills	-	0%
	323	Printing and Related Support Activities	1,305	4%
	326	Plastics and Rubber Products Manufacturing	192	1%
	327	Nonmetallic Mineral Product Manufacturing	1,478	5%
	332	Fabricated Metal Product Manufacturing	10,596	36%
	333	Machinery Manufacturing	10,325	35%
	337	Furniture and Related Product Manufacturing	1,144	4%
		Total		29,537
Warehouse/ Distribution	42	Wholesale Trade	31,445	69%
	484	Truck Transportation	3,410	7%
	4885	Freight Transportation Arrangement	160	0%
	492	Couriers and Messengers	3,959	9%

Economic and Fiscal Impact Analysis Memo

Building Type	NAICS Codes	Industry Name	Annual Average Employment, Santa Clara County	Share of Employment in Santa Clara County
	493	Warehousing and Storage	1,121	2%
	4541	Electronic Shopping and Mail-Order Houses	5,411	12%
		Total	45,506	100%
Retail	44-45	Retail Trade	85,566	49%
	722	Food Services and Drinking Places	79,463	46%
	812	Personal and Laundry Services	8,916	5%
		Total	173,945	100%
Office	52	Finance and Insurance	21,320	14%
	53	Real Estate and Rental and Leasing	15,026	10%
	5411	Legal Services	7,761	5%
	5412	Accounting, Tax Preparation, Bookkeeping, and Payroll Services	9,620	6%
	5413	Architectural, Engineering, and Related Services	17,273	11%
	5414	Specialized Design Services	1,065	1%
	5416	Management, Scientific, and Technical Consulting Services	11,347	7%
	5418	Advertising, Public Relations, and Related Services	1,847	1%
	5419	Other Professional, Scientific, and Technical Services	4,014	3%
	55	Management of Companies and Enterprises	18,989	12%
	5611	Office Administrative Services	2,341	2%
	5614	Business Support Services	1,977	1%
	5615	Travel Arrangement and Reservation Services	1,046	1%
	621	Ambulatory health care services	40,994	27%
			Total	154,620

Sources: Quarterly Census of Employment and Wages, 2018; Strategic Economics, 2020.

STEP 2: CALCULATE AVERAGE WAGE FOR EACH LAND USE

The following methodology was used to calculate weighted average wages for each building type:

- Industries in the table presented above (Figure 25) were extracted from the 2018 National Industrial Occupational Matrix, which provides occupation titles and their national levels of employment for each industry.
- Employment totals by occupation title were then weighted to reflect employment distributions for the industries associated with each building type using the percent values shown in Figure 25.
- Each occupation was matched with Q1 2018 Mean Annual Wages reported by the Quarterly Census of Employment and Wages for the San Jose-Sunnyvale-Santa Clara MSA using Standard Occupational Classification (SOC) codes.
- A weighted average wage was calculated for each building type based on the share of occupations associated with the building's industry categories, presented in Figure 26.

FIGURE 26: MAJOR OCCUPATION CATEGORIES, SHARE OF WORKERS, AND AVERAGE WAGES BY BUILDING TYPE

Occupation Title	% of Total Workers by Building Type	Average Annual Wage for San Jose MSA
Office		\$82,500
Management Occupations	6.5%	\$163,051
Business and Financial Operations Occupations	10.0%	\$105,584
Computer and Mathematical Occupations	3.3%	\$115,508
Architecture and Engineering Occupations	2.4%	\$102,587
Life, Physical, and Social Science Occupations	0.7%	\$97,756
Community and Social Service Occupations	4.4%	\$110,827
Education, Training, and Library Occupations	0.1%	\$57,020
Arts, Design, Entertainment, Sports, and Media Occupations	0.6%	\$74,697
Healthcare Practitioners and Technical Occupations	19.2%	\$121,412
Healthcare Support Occupations	12.1%	\$44,025
Food Preparation and Serving Related Occupations	0.1%	\$34,136
Building and Grounds Cleaning and Maintenance Occupations	6.4%	\$30,159
Sales and Related Occupations	5.3%	\$75,888
Office and Administrative Support Occupations	25.7%	\$49,030
Farming, Fishing, and Forestry Occupations	0.6%	\$72,540
Installation, Maintenance, and Repair Occupations	1.4%	\$59,355
Production Occupations	0.4%	\$49,967
Transportation and Material Moving Occupations	0.8%	\$42,501
Manufacturing/Assembly		\$60,800
Management Occupations	5.6%	\$164,809
Business and Financial Operations Occupations	3.5%	\$93,039
Computer and Mathematical Occupations	1.2%	\$114,218
Architecture and Engineering Occupations	5.7%	\$109,331
Life, Physical, and Social Science Occupations	0.3%	\$76,854
Community and Social Service Occupations	0.0%	\$65,559
Legal Occupations	0.0%	\$166,704

Economic and Fiscal Impact Analysis Memo

Occupation Title	% of Total Workers by Building Type	Average Annual Wage for San Jose MSA
Arts, Design, Entertainment, Sports, and Media Occupations	0.4%	\$78,339
Healthcare Practitioners and Technical Occupations	0.1%	\$88,426
Protective Service Occupations	0.0%	\$37,530
Food Preparation and Serving Related Occupations	0.5%	\$30,847
Building and Grounds Cleaning and Maintenance Occupations	0.6%	\$33,412
Personal Care and Service Occupations	0.0%	\$33,299
Sales and Related Occupations	3.5%	\$76,106
Office and Administrative Support Occupations	9.8%	\$48,099
Farming, Fishing, and Forestry Occupations	0.2%	\$30,097
Construction and Extraction Occupations	1.9%	\$70,721
Installation, Maintenance, and Repair Occupations	4.4%	\$63,590
Production Occupations	54.9%	\$46,193
Transportation and Material Moving Occupations	7.4%	\$39,201
Warehouse		\$66,867
Management Occupations	7.4%	\$166,013
Business and Financial Operations Occupations	5.0%	\$95,890
Computer and Mathematical Occupations	2.9%	\$93,324
Architecture and Engineering Occupations	1.0%	\$110,937
Life, Physical, and Social Science Occupations	0.2%	\$85,354
Community and Social Service Occupations	0.0%	\$88,035
Legal Occupations	0.1%	\$178,112
Education, Training, and Library Occupations	0.0%	\$73,244
Arts, Design, Entertainment, Sports, and Media Occupations	1.2%	\$56,613
Healthcare Practitioners and Technical Occupations	0.5%	\$87,815
Healthcare Support Occupations	0.2%	\$51,421
Food Preparation and Serving Related Occupations	0.1%	\$30,883
Building and Grounds Cleaning and Maintenance Occupations	0.4%	\$34,018
Personal Care and Service Occupations	0.0%	\$35,481
Sales and Related Occupations	22.1%	\$78,192
Office and Administrative Support Occupations	21.6%	\$45,919
Farming, Fishing, and Forestry Occupations	0.4%	\$28,499
Construction and Extraction Occupations	0.4%	\$68,796
Installation, Maintenance, and Repair Occupations	6.1%	\$62,649
Production Occupations	5.2%	\$43,944
Transportation and Material Moving Occupations	25.2%	\$42,109
R&D		\$66,867
Management Occupations	11.2%	\$180,661
Business and Financial Operations Occupations	8.9%	\$102,233
Computer and Mathematical Occupations	35.9%	\$120,951
Architecture and Engineering Occupations	10.6%	\$113,413
Life, Physical, and Social Science Occupations	1.4%	\$96,774
Community and Social Service Occupations	0.0%	\$63,084
Legal Occupations	0.2%	\$180,082

Economic and Fiscal Impact Analysis Memo

Occupation Title	% of Total Workers by Building Type	Average Annual Wage for San Jose MSA
Education, Training, and Library Occupations	0.1%	\$66,716
Arts, Design, Entertainment, Sports, and Media Occupations	1.2%	\$89,877
Healthcare Practitioners and Technical Occupations	0.3%	\$88,490
Protective Service Occupations	0.1%	\$44,205
Food Preparation and Serving Related Occupations	0.0%	\$36,865
Building and Grounds Cleaning and Maintenance Occupations	0.1%	\$33,601
Personal Care and Service Occupations	0.0%	\$35,285
Sales and Related Occupations	4.9%	\$92,079
Office and Administrative Support Occupations	8.6%	\$50,690
Farming, Fishing, and Forestry Occupations	0.0%	\$30,632
Construction and Extraction Occupations	0.2%	\$74,602
Installation, Maintenance, and Repair Occupations	1.7%	\$61,604
Production Occupations	13.4%	\$45,339
Transportation and Material Moving Occupations	0.8%	\$39,105
Retail		\$39,234
Management Occupations	2.5%	\$140,171
Business and Financial Operations Occupations	0.7%	\$92,822
Computer and Mathematical Occupations	0.2%	\$103,090
Architecture and Engineering Occupations	0.0%	\$102,089
Life, Physical, and Social Science Occupations	0.0%	\$60,826
Legal Occupations	0.0%	\$149,095
Education, Training, and Library Occupations	0.0%	\$55,856
Arts, Design, Entertainment, Sports, and Media Occupations	0.5%	\$45,334
Healthcare Practitioners and Technical Occupations	2.0%	\$83,296
Healthcare Support Occupations	0.1%	\$39,198
Protective Service Occupations	0.3%	\$38,057
Food Preparation and Serving Related Occupations	38.6%	\$30,509
Building and Grounds Cleaning and Maintenance Occupations	0.6%	\$33,511
Personal Care and Service Occupations	0.7%	\$32,086
Sales and Related Occupations	34.1%	\$34,846
Office and Administrative Support Occupations	10.8%	\$41,146
Farming, Fishing, and Forestry Occupations	0.1%	\$27,121
Construction and Extraction Occupations	0.1%	\$65,177
Installation, Maintenance, and Repair Occupations	2.8%	\$53,226
Production Occupations	1.3%	\$39,353
Transportation and Material Moving Occupations	4.6%	\$77,837

Sources: Quarterly Census of Employment and Wages, 2018; BLS Industry and Occupation Matrix, 2018; California Employment Development Department Occupational and Employment Statistics, 2018; Strategic Economics, 2020.