Appendix D
Noise Technical Study

City of San José 2023-2031 Housing Element Update

Noise Technical Study

prepared for

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1 Project Description and Impact Summary

1.1 Introduction

This study analyzes the potential noise and vibration impacts of the 2023-2031 Housing Element Update ("the Housing Element Update" or "the project") for the City of San José. The City of San José (City) last updated its Housing Element for the 2014-2023 planning period in 2015. The City's 2014-2023 Housing Element Update was adopted by City Council on January 27, 2015 and certified by HCD on April 30, 2015. The Housing Element Update has been developed to comply with State law requirements analyzing existing and projected housing needs, and updating goals, policies, objectives, and implementation programs for the preservation, improvement, and development of housing in the City.

The purpose of this study is to analyze the project's noise and vibration impacts related to both temporary construction activity and long-term operation of the project. Table 1 provides a summary of project impacts.

Table 1 Summary of Impacts

Issue	Finding
Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Less than significant impact with mitigation incorporated (Construction) Less than significant impact (Operation)
Would the project result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	Less than significant impact (Construction) Less than significant impact (Operation)
For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Less than significant impact.

1.2 Project Background

Project Location

The City is located in the easterly half of the Santa Clara Valley at the southern tip of the San Francisco Bay. The City is the largest in Santa Clara County, both in terms of population and land area. At slightly over a million people, the City is also the tenth largest city in the United States (U.S.).

Project Baseline

State CEQA Guidelines Section 15125 provides guidance for establishing the baseline against which project impacts can be evaluated. Ordinarily, the appropriate baseline would be the actual environmental conditions existing at the time of CEQA analysis (typically when the Notice of Preparation [NOP] is published). However, due to complications from the Covid-19 pandemic, collection of 2020 Census data was disrupted and complete demographic data for 2020-2022 is not

available. The most recent complete data set available at the time of this analysis (September 2022) was the 2019 American Community Survey (ACS) estimates. There is no confirmed date for when the 2022 data will be released. Therefore, 2019 is the baseline for the purposes of this CEQA analysis; unless otherwise stated, demographic data presented in the following sections comes from the 2019 ACS estimates. In some cases, data from before or after 2019 is presented to provide historical context and to highlight past and projected trends.

Population

The total population of the City has increased dramatically during the last 50 years, especially during the 1960s and 1970s. Although the rate of growth has slowed since the 1970s, the City is still experiencing substantial growth. The City added an average of 12,795 residents per year since 2000, an increase of 14.3 percent since 2000, for a total population of 945,942 at the beginning of 2010. As of 2019, total population of the City was estimated to be 1,021,786, nearly an 11 percent increase from 2010. Rapid population growth is expected to continue for Santa Clara County and for the City into the future. Santa Clara County's population is projected by ABAG to increase to 2.4 million by 2035, representing growth of 33 percent over the existing population. This is faster than the Bay region's projected growth of 27 percent over the same period.

Housing

There exists a diverse range of housing types and densities to serve the City's diverse population. Single family detached units constituted 54.6 percent of the housing stock in 2008. Multi-family development (which includes apartments, condominiums, and townhouses) has been the fastest growing housing type in recent years, adding over twice as many units since 2000 and accounting for 75 percent of all residential construction. This suggests an increase in higher-density, smaller, more affordable (though not necessarily subsidized) units. The City's housing stock in 2020 was made up of 52.6 percent single family detached homes, 9.7 percent single family attached homes, 6.9 percent multifamily homes with 2 to 4 units, 27.5 percent multifamily homes with 5 or more units, and 3.3 percent mobile homes. The housing type that experienced the most growth between 2010 and 2020 was Multiple Family, 5+ Units per Building, up 25 percent. The primary housing types that made up the City's housing stock in 2020 are shown in Table 2.

Table 2 Housing Units by Type

Housing Type	# of Units	Percent of Total
Single Family Detached[1]	176,908	52.5%
Single Family Attached[1]	32,620	9.7%
Multiple Family, 2-4 Units per Building	23,353	7.0%
Multiple Family, 5+ Units per Building	92,667	27.5%
Mobile Homes	10,959	3.3%
Total	**336,507**	**100%**

Source: City of San José 2022

[1] A single family housing unit is a separate building that either has open spaces on all sides or is separated from other units by dividing walls that extend from ground to roof, such as a townhouse.

Existing and projected population households are shown in Table 3 for both the City and Santa Clara County. In 2019, there were approximately 325,114 households within the City. Looking forward,

ABAG projects that approximately 117,215 additional households will be added in the City by 2040. This rate of growth is relatively consistent with the anticipated rate in the County as a whole.

Table 3 Population and Housing Estimates and Projections

	Population		Households	
Source	2019	2040	2019	2040
Santa Clara County	1,927,852	2,538,320	640,215	860,810
City of San José	1,021,786	1,377,145	325,114	448,310
City as a Percent of County	-	54.3%	-	32%

Source: ABAG Projections 2020. American Census Survey 2019

Employment

Santa Clara County is one of the Bay Area region's major job generators. Santa Clara County provided 28 percent of the Bay Area region's employment in 2000, or 1.0 million jobs, according to ABAG. The City added approximately 103,390 jobs between 1990 and 2000, growing from approximately 329,090 to nearly 432,480 jobs (a 31 percent increase). Following the "dot-com" collapse, ABAG estimates show reductions in jobs across all sectors in 2005, with employment in the City decreasing about 69,100 jobs. However, since that time the number of jobs in the City has continued to increase. By the baseline year of 2019, there were approximately 535,727 jobs in the City.

As shown in Table 4, ABAG expects Santa Clara County jobs to reach 1.3 million jobs by 2040; an increase of nearly 57 percent over 2019 levels. During the same time period, ABAG projects that the City's employment will nearly double from 369,500 to 708,980. With these projections, the City's share of total jobs in the County will increase from approximately 41 percent to 50 percent.

Table 4 ABAG Employment Projections

		Percent			Percent	
Jurisdiction(s)	Employed Residents 2019	County Employment	Bay Area Employment	Employed Residents 2040	County Employment	Bay Area Employment
City of San José	369,500	41%	11%	708,980	50%	14%
Santa Clara County	906,270	--	26%	1,412,620	--	28%

Source: American Community Survey, 5-year Estimates, 2019. ABAG Projections, 2020

Employed residents are expected to increase steadily in the County, growing from 906,270 to 1,412,620 between 2019 and 2040 (an increase of 56 percent). Employment in the City (under the existing 2040 General Plan) is projected to grow even faster, with the number of employed residents growing from 369,500 in 2019 to 708,980 in 2040, for an increase of 92 percent.

1.3 Housing Element Update

The City must plan for 62,200 housing units during the 2023-2031 planning period (i.e., the 6th Cycle). Table 5 summarizes the City's approach to meeting the assigned RHNA, broken out by type of housing units and income level. As shown in Table 5, approximately 20,399 units have been planned or approved for development consistent with existing 2040 General Plan land use designations and zoning since the 6th cycle RHNA projection period began on June 30, 2022. Additionally, 3,552 ADUs are forecasted to be issued during the planning period given recent development trends. A total of 204 alternative housing units have also been identified through HCD's project Homekey.[1] Together, planned, approved, and forecasted housing units comprise 24,155 housing units out of the City's total 62,200 RHNA.

Table 5 Planned and Projected Housing Units

Type of Housing Unit	Low	Moderate	Above Moderate	Total
Planned and Approved	5,344	178	14,877	20,399
ADUs	2,131	1,066	355	3,552
Alternative Sites	204	0	0	204
Opportunity Sites	21,799	11,779	19,854	53,432
Total	**29,478**	**13,023**	**35,086**	**77,587**
Buffer	*24%*	*22%*	*27%*	*25%*

Source: City of San José 2022

To achieve the full 62,200 housing units, the City has identified opportunity sites that are vacant or underutilized to allow development for the remaining 38,045 units. Per HCD's guidelines, the City also included a buffer of 15,387 units (or approximately 25% of the 62,200 RHNA), for a total of 53,432 units in opportunity sites. As Table 5 demonstrates, the Housing Element Update is able to accommodate the City's share of RHNA at all income levels.

Changes to the 2040 General Plan land use designations and zoning to allow for residential units in certain areas of the City will be required for some of these opportunity sites where housing is currently not permitted.

Growth Areas

Growth areas are areas identified in the 2040 General Plan for higher density development to support job and/or housing growth within the existing City boundaries through redevelopment and intensification of already developed properties. Each of the growth areas identified in the 2040 General Plan have specific development capacities with a maximum number of housing units allowed. By focusing on specific growth areas, the 2040 General Plan sought to reduce environmental impacts while fostering transit use and walkability, protecting the quality of existing neighborhoods, and enabling the development of new Urban Village areas that are attractive to the

[1] Project Homekey seeks to sustain and rapidly expand permanent and interim housing for persons experiencing homelessness or at risk of homelessness, and who are inherently impacted by, or at increased risk for, medical conditions due to the COVID-19 pandemic. For more information on Project Homekey in San José please visit https://www.sanjoseca.gov/your-government/departments-offices/housing/homelessness-response/project-homekey.

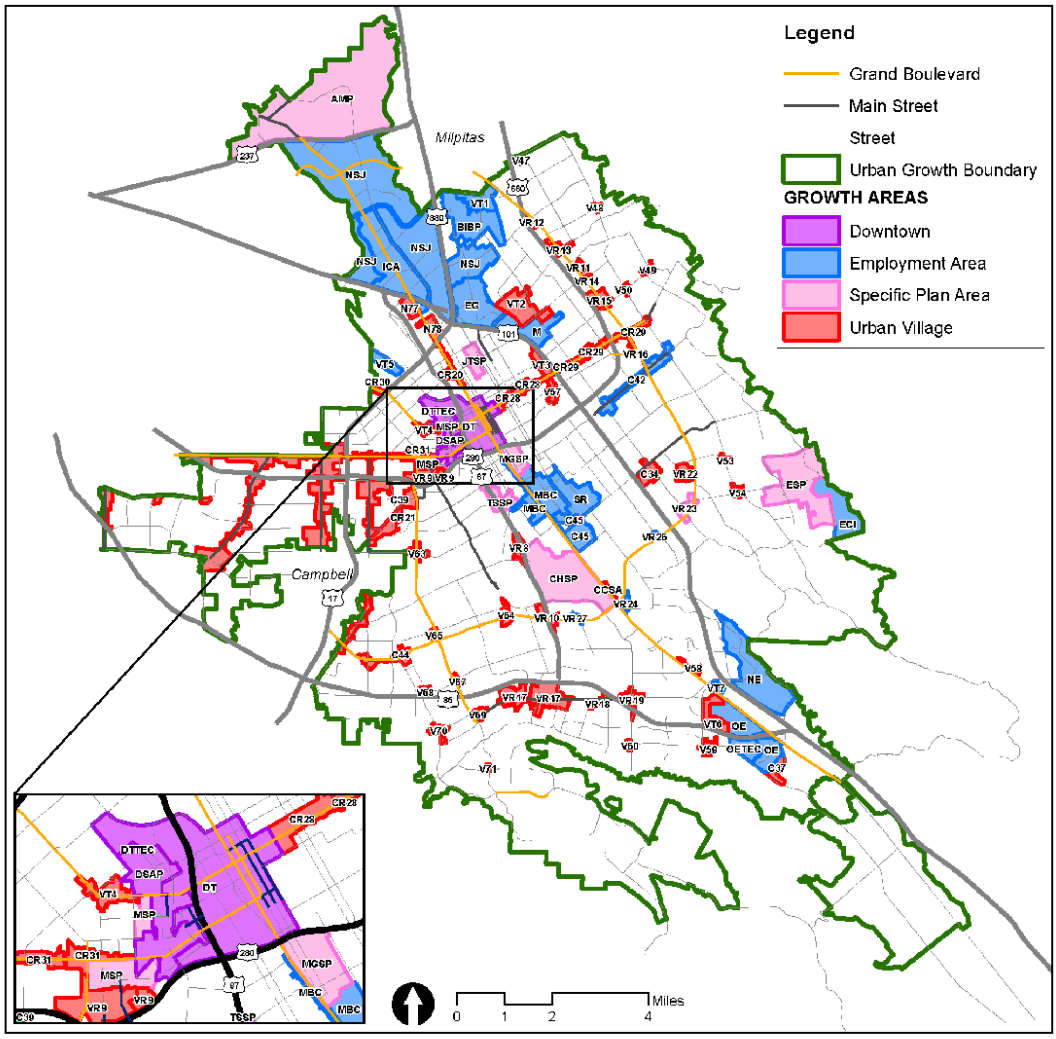
growing demographic groups (i.e., an aging population and young workers seeking an urban experience). Growth areas identified in the 2040 General Plan include:

- North San José (including the Rincon Urban Village)
- Downtown
- Diridon Station Area
- Specific Plan Areas
- Neighborhood Business Districts (NBDs)
- Urban Villages with adopted plans ("Planned UVs")
- Urban Villages without adopted plans ("Unplanned UVs")

A complete map of all planned growth areas identified by the City is shown in Figure 1.

To facilitate the development of the 38,045 opportunity site housing units, the City conducted a comprehensive inventory of remaining development capacity in previously identified growth areas and of land suitable and available for residential development. The City also considered recent development trends, including the effects of the Covid-19 pandemic (for a full description of the City's methodology, refer to Chapter 5 of the Housing Element Update). Through this exercise, the City found that some growth areas have an excess of available land suitable for residential development, while some growth areas have an excess of unused residential development capacity. Table 6 shows the growth areas with available land for residential development that currently lack residential growth capacity as assigned by the 2040 General Plan. As part of the project, the City proposes to reallocate the required units for each growth area from the North San José and Rincon Urban Village Growth Area, which has a planned growth capacity surplus of approximately 23,000 units. The total development capacity for the City would remain unchanged; no additional growth beyond what was analyzed under the 2040 General Plan EIR would occur.

Figure 1 Planned Growth Areas



Downtown
DT = Downtown
DSAP = Diridon Station Area Plan

Specific Plan Areas
AMP = Alivio (Master Plan)
CHSP = Communications Hill
ESP = Evergreen
JTSP = Jackson-Taylor (Residential Strategy)
MGSP = Martha Gardens
MSP = Midtown
TSSP = Tamien Station Area
VR23 = E. Capitol Ex/Silver Creek Rd

Employment Area
BIBP = Berryessa International Business Park
DTTEC = Downtown Transit Employment Center
ECI = Evergreen Campus Industrial
EG = East Gish
ICA = Industrial Core Area
M = Mabury
MBC = Monterey Business Corridor
NE = New Edenvale
NSJ = North San Jose
OE = Old Edenvale
OETEC = Old Edenvale Transit Employment Center
SR = Senter Road

C42 = Story Rd
C 45 = County Fairgrounds

VR16 = S. Capitol Av/Capitol Ex
VR24 = Monterey Hy/Senter Rd
VR26 = E. Capitol Ex/McLaughlin Av
VR27 = W. Capitol Ex/Vistapark Dr

Employment Areas (cont.)
VT1 = Lundy/Milpitas BART
VT5 = Santa Clara/Airport West (FMC)
CT7 = Blossom Hill Rd/Monterey Rd

Urban Villages
C34 = Tully Rd/S. King Rd
C35 = Valley Fair/Sanatana Row
C36 = Paseo de Saratoga
C37 = Santa Teresa Bl/Bernal Rd
C38 = Winchester Bl
C39 = S. Bascom Av (North)
C40 = S. Bascom Av (South)
C41 = Saratoga Av
C43 = S. De Anza Bl
C44 = Camden Av/Hillsdale Av

CCSA = Capitol CaltrainStation Area

CR20 = N. 1st St
CR21 = Southwest Ex
CR28 = E. Santa Clara St
CR30 = The Alameda (West)
CR 31 = W. San Carlos St
CR32 = Stevens Creek Bl

N77 = Rincon South 1
N78 = Rincon South 2

V47 = Landess Av/Morrill Av
V48 = Piedmont Rd/Sierra Rd
V49 = McKee Rd/Toyon Av
V50 = McKee Rd/White Rd
V53 = Quimby Rd/S. White Rd
V54 = Aborn Rd/San Felipe Rd

Urban Villages (cont.)
V57 = S. 24th St/William Ct
V58 = Monterey Rd/Chynoweth Av
V59 = Santa Teresa Bl/Cottle Rd
V60 = Santa Teresa Bl/Snell Av
V61 = Bollinger Rd/Miller Av
V62 = Bolling Rd/Lawrence Ex
V63 = Hamilton Av/Meridian Av
V64 = Almaden Ex/Hillsdale Av
V65 = Foxworthy Av/Meridian Av
V67 = Branham Ln/Meridian Av
V68 = Camden Av/Branham Ln
V69 = Kooser Rd/Meridian Av
V70 = Camden Av/Kooser Rd
V71 = Meridian Av/Redmond Av

VR8 = Curtner Light Rail/Caltrain
VR9 = Race St Light Rail
VR10 = Capitol Ex/Hy 87 Light Rail
VR11 = Penitencia Creek Light Rail
VR12 = N. Capitol Av/Hostetter Rd
VR13 = N. Capitol Av/Berryessa Rd
VR14 = N. Capitol Av/Madbury Rd
VR15 = N. Capitol Av/McKee Rd
VR17 = Oakridge Mall and Vicinity
VR18 = Blossom Hill Rd/Cahalan Av
VR19 = Blossom Hill Rd/Snell Av
VR22 = Arcadia/Eastridge

VT2 = Berryessa BART
VT3 = Five Wounds BART
VT4 = The Alameda (East)
VT6 = Blossom Hill Rd/Hitachi

Table 6 Growth Areas Receiving Additional Growth Capacity from North San José

Urban Villages/Growth Areas	Planned Growth Capacity in Housing Element Update (Units)	Remaining Growth Capacity in 2040 General Plan (Units)	Units to be Reallocated from North San José
Saratoga Avenue	680	225	455
Blossom Hill Road/Snell Avenue	753	209	544
Camden Avenue/Hillsdale Avenue	676	450	147
Capitol Expressway/Highway 87 Light Rail	617	531	723
Curtner Light Rail Station	463	435	28
S. Bascom Avenue (South)	694	195	499
S. De Anza Boulevard	754	463	291
Urban Villages (Aborn Road/San Felipe Road, Almaden Expressway/Hillsdale Avenue, Camden Avenue/Kooser Road, Hamilton Avenue/Meridian Avenue, McKee Road/Toyon Avenue, McKee Road/White Road, Piedmont Road/Sierra Road, Santa Teresa Boulevard/Snell Avenue)	1,973	1,430	408
Total Reallocation from North San José and Rincon Urban Village			**3,095**

Source: City of San José 2022

2040 General Plan Amendments and Zoning Code Amendments

Several land use and zoning changes would be required to facilitate the development of the City's RHNA and to allow for the reallocation of residential development capacity. These would occur within the North San José and Rincon Urban Village growth area. While 2040 General Plan-designated land uses within this growth area are primarily employment-related (i.e., industrial and commercial), a Transit Employment Residential Overlay (TERO) allows for transit-oriented residential development as an alternate use on certain sites within the growth area.

The TERO is intended to make efficient use of land to provide residential units in support of nearby industrial employment centers. This overlay supports residential development as an alternate use at a minimum average net density of 75 units per acre. Sites with this overlay may also be developed with uses consistent with the underlying designation. This designation permits development with commercial uses on the first two floors and residential use on the upper floors, as well as wholly residential projects. Land within this overlay area may also be converted for the development of new schools and parks as needed to support residential development.

Due to a variety of economic factors, development within TERO areas of the North San José and Rincon Urban Village growth area has continued to be primarily employment-related despite the residential overlay, resulting in the 23,000-unit residential development capacity surplus.

One site (1601 Technology) would be added to the TERO General Plan and Zoning overlay and 11 other sites would be removed from the General Plan and Zoning TERO overlay because the sites are no longer feasible residential properties due to changed circumstances. These sites are identified in Table 7.

Similar to the TERO, two new General Plan land use designation overlays would be introduced: the Affordable Housing Overlay (AHO) and Mixed Income Housing Overlay (MIHO). The AHO overlay

would support residential development as an alternate use at a minimum average net density of 75 units per acre. The residential uses however must be one hundred percent affordable at incomes at or below eighty percent of area median income (AMI). Sites with this overlay could also continue to be developed with uses consistent with the current underlying land use designation. The Mixed-Income Housing Overlay (MIHO) would support residential development as an alternate use at a minimum average net density of 75 units per acre. This overlay would require at least twenty-five percent (25 percent) of the units be affordable at or below eighty percent (80 percent) of area median income (AMI).

In addition to the proposed General Plan land use designation overlays, Zoning overlays would be introduced consistent with the new land use overlays designations (AHO and MIHO), that would include development standards. Table 8 identifies the sites proposed to be part of these new overlays.

In addition to reallocating 3,095 units to other growth areas shown in Table 6, the City proposes to expand the TERO areas within the North San José and Rincon Urban Village growth area to encourage more residential development, as part of the implementation of an updated Housing Element. Zoning in these areas would also be updated, consistent with the new overlay. New TERO sites and accompanying zoning changes are shown in Figure 2.

Table 7 Sites Removed for TERO Overlay

Parcel ID	Address
097-54-015	250 W Tasman Drive, San José, CA 95134
097-54-016	230 W Tasman Drive, San José, CA 95134
097-54-017	210 W Tasman Drive, San José, CA 95134
097-54-018	190 W Tasman Drive, San José, CA 95134
097-54-019	180 W Tasman Drive, San José, CA 95134
097-54-020	150 W Tasman Drive, San José, CA 95134
097-06-055	Montague Expressway, San José, CA
097-07-029	225 Baypointe Parkway, San José, CA 95134
097-15-038	Address Not Assigned

Source: City of San José 2022

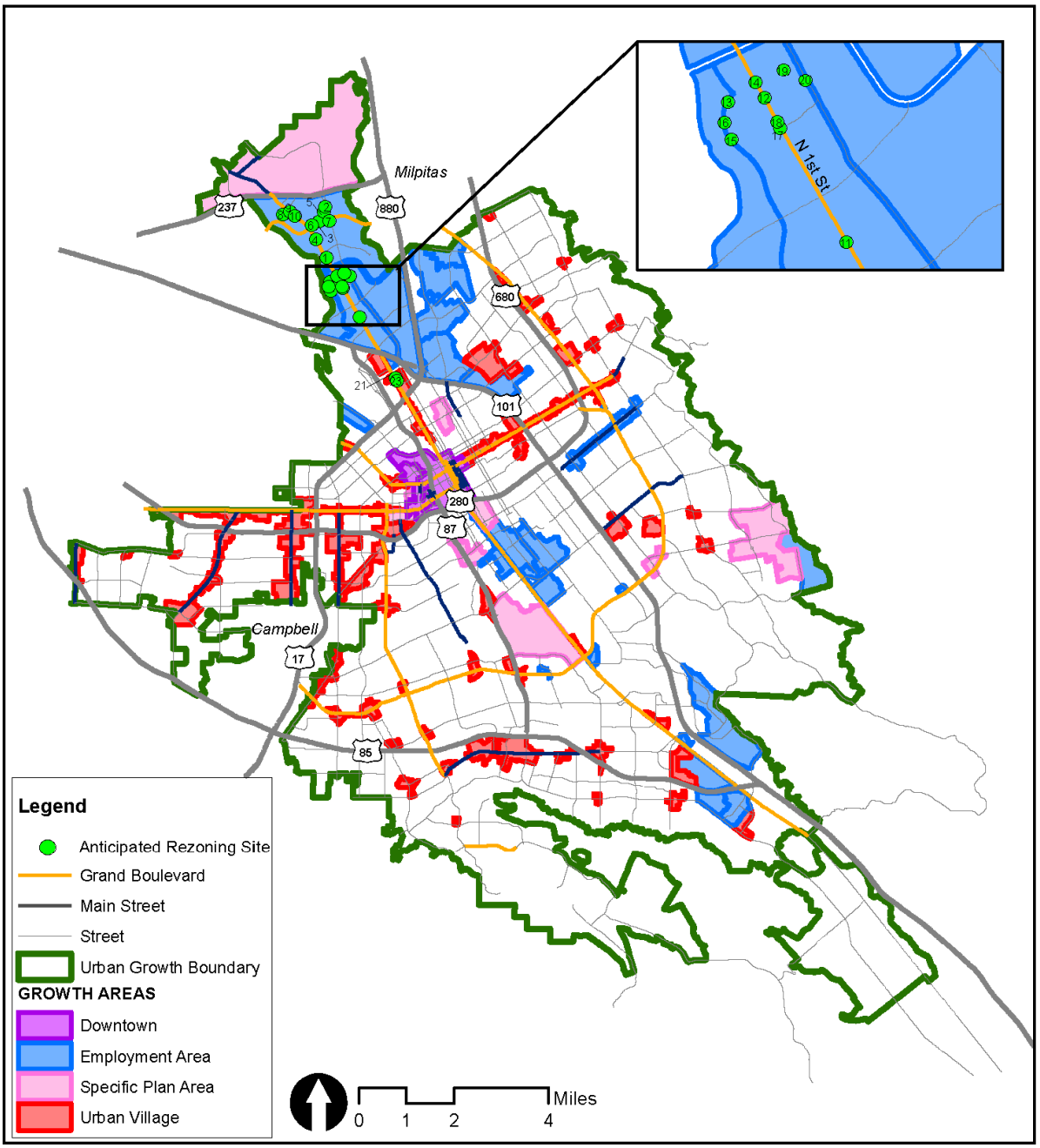
Table 8 New AHO-MIHO Sites and Anticipated Rezoning

ID#	Location	Current Zoning	Proposed New Zoning Overlay
1	3331 North First Street, San José, CA, 95134	Industrial Park	MIHOZ
2	255 Baypointe Parkway, San José, CA, 95134	Industrial Park, TERO Overlay	AHOZ
3	111 Baypointe Parkway, San José, CA, 95134	Industrial Park	AHOZ
4	3550 North First Street, San José, CA, 95134	Industrial Park	MIHOZ
5	240 Baypointe Parkway, San José, CA, 95134	Industrial Park, TERO Overlay	AHOZ
6	Address Not Assigned, San José, CA	Industrial Park, TERO Overlay	AHOZ
7	Address Not Assigned, San José, CA	Industrial Park, TERO Overlay	AHOZ
8	71 Vista Montana, San José, CA, 95134	Industrial Park, TERO Overlay	AHOZ
9	4001 North First Street, San José, CA, 95134	Industrial Park	AHOZ

ID#	Location	Current Zoning	Proposed New Zoning Overlay
10	3939 North First Street, San José, CA, 95134	Industrial Park	MIHOZ
11	2347 North First Street, San José, CA, 95131	Transit Employment Center	MIHOZ
12	3011 North First Street, San José, CA, 95134	Transit Employment Center	MIHOZ
13	3000 Orchard Parkway, San José, CA, 95134	Transit Employment Center	MIHOZ
14	3003 North First Street, San José, CA, 95134	Transit Employment Center	MIHOZ
15	2820 Orchard Parkway, San José, CA, 95134	Transit Employment Center	MIHOZ
16	2904 Orchard Parkway, San José, CA, 95134	Transit Employment Center	MIHOZ
17	3 W Plumeria Drive, San José, CA, 95134	Transit Employment Center	MIHOZ
18	2825 North First Street, San José, CA, 95134	Transit Employment Center	MIHOZ
19	101 Daggett Drive, San José, CA, 95134	Transit Employment Center	MIHOZ
20	2865 Zanker Road, San José, CA, 95134	Transit Employment Center	MIHOZ
21	1488 North First Street, San José, CA, 95112	Urban Village	AHOZ
22	1550 North First Street, San José, CA, 95112	Urban Village	AHOZ
23	1490 North First Street, San José, CA, 95112	Urban Village	AHOZ

Source: City of San José 2022

Figure 2 Anticipated Rezoning Sites



Anticipated Rezoning Sites

1 - (APN: 097-06-032) 3331 N 1st St, San Jose, CA, 95134
2 - (APN: 097-07-028) 255 Baypointe Pkwy, San Jose, CA, 95134
3 - (APN: 097-07-039) 111 Baypointe Pkwy, San Jose, CA, 95134
4 - (APN: 097-07-040) 3550 N 1st St, San Jose, CA, 95134
5 - (APN: 097-07-047) 240 Baypointe Pkwy, San Jose, CA, 95134
6 - (APN: 097-07-063) No Address Assigned, San Jose, CA, 95134
7 - (APN: 097-07-085) No Address Assigned, San Jose, CA, 95134
8 - (APN: 097-52-027) 71 Vista Montana, San Jose, CA, 95134
9 - (APN: 097-53-007) 4001 N 1st St, San Jose, CA, 95134
10 - (APN: 097-53-008) 3939 N 1st St, San Jose, CA, 95134
11 - (APN: 101-02-011) 2347 N 1st St, San Jose, CA, 95134
12 - (APN: 101-29-005) 3011 N 1st St, San Jose, CA, 95134
13 - (APN: 101-29-006) 3000 Orchard Pkwy, San Jose, CA, 95134
14 - (APN: 101-29-007) 3003 N 1st St, San Jose, CA, 95134
15 - (APN: 101-29-010) 2820 Orchard Pkwy, San Jose, CA, 95134
16 - (APN: 101-29-011) 2904 Orchard Pkwy, San Jose, CA, 95134
17 - (APN: 101-29-012) 3 W Plumeria Dr, San Jose, CA, 95134
18 - (APN: 101-29-013) 2825 N 1st St, San Jose, CA, 95134
19 - (APN: 101-30-004) 101 Daggett Dr, San Jose, CA, 95134
20 - (APN: 101-30-006) 2865 Zanker Rd, San Jose, CA, 95134
21 - (APN: 235-02-031) 1488 N 1st St, San Jose, CA, 95112
22 - (APN: 235-02-033) 1550 N 1st St, San Jose, CA, 95112
23 - (APN: 235-02-035) 1490 N 1st St, San Jose, CA, 95112

Interim Housing Communities

Bridge Housing Communities

The City operates five interim housing communities, which are sometimes called Bridge Housing Communities (BHCs). The first BHC opened in January 2020 to provide interim housing for formerly unhoused individuals. The purpose of interim housing is to give participants an opportunity to stabilize their lives and work toward self-sufficiency. The first two BHC sites are located on Mabury Road near the Berryessa BART station, and on Felipe Avenue near Story Road.

Emergency Interim Housing

During the coronavirus pandemic, the City built three Emergency Interim Housing (EIH) communities. These are similar to the two BHCs although the site design and construction are slightly different. The EIH communities have been used to house medically vulnerable unhoused residents who are at risk of severe illness or death if they contract COVID-19. As the pandemic subsides, the EIH communities are being rolled into a broader interim housing program with the BHCs. The three EIH sites are located at the intersection of Bernal Road and Monterey Road; on Rue Ferrari near the entrance to Highway 101; and on Evans Lane near the entrance to Almaden Expressway. A fourth EIH community is under construction near SJPD headquarters.

Safe Parking Program

The City provides opportunities for homeless families and individuals living in cars and RVs to park in safe places overnight. The Safe Parking Program allows businesses and non-profits to establish Safe Parking Areas in their parking lots.

1.4 Changes to Future Development Actions

The Housing Element Update establishes policies, goals and guidelines, and reallocations of planned housing development capacities within the City that may or may not be built on any particular site, therefore this programmatic environmental document is necessarily general and not project-specific. The CEQA Guidelines instruct that environmental review of a planning-level document need not contain the level of detail required for review of a specific construction project, for example CEQA Guidelines, Section 15146 states that “[the degree of specificity required will correspond to the degree of specificity involved in the underlying activity”.

The City’s inventory of sites is a state-mandated requirement to ensure that the City’s RHNA can be accommodated. In other words, the housing inventory demonstrates that there is enough land zoned at appropriate densities to accommodate the RHNA allocation. However, this inventory does not include all potential residential development sites within the City limits, and does not mean that sites in the inventory will be developed at the allowable densities. In addition, information about the design and placement of buildings on the sites will not be available unless/until a specific development is proposed.

It is important to note that while the law requires the City’s Housing Element Update to include an inventory of housing sites and requires the City to zone those sites for multifamily housing, the City is not required to develop housing on these sites. Future development on the identified sites will be up to the property owners and will be largely dependent on market forces and (in the case of affordable housing) available subsidies.

2 Background

2.1 Overview of Sound Measurement

Sound is a vibratory disturbance created by a moving or vibrating source, which is capable of being detected by the hearing organs. Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and, in the extreme, hearing impairment (California Department of Transportation [Caltrans] 2013).

Human Perception of Sound

Noise levels are commonly measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels so that they are consistent with the human hearing response. Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used to measure earthquake magnitudes. A doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; dividing the energy in half would result in a 3 dB decrease (Caltrans 2013).

Human perception of noise has no simple correlation with sound energy: the perception of sound is not linear in terms of dBA or in terms of sound energy. Two sources do not "sound twice as loud" as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increase or decrease (i.e., twice the sound energy); that a change of 5 dBA is readily perceptible; and that an increase (or decrease) of 10 dBA sounds twice (half) as loud (Caltrans 2013).

Sound Propagation and Shielding

Sound changes in both level and frequency spectrum as it travels from the source to the receiver. The most obvious change is the decrease in the noise level as the distance from the source increases. The manner by which noise reduces with distance depends on factors such as the type of sources (e.g., point or line), the path the sound will travel, site conditions, and obstructions.

Sound levels are described as either a "sound power level" or a "sound pressure level," which are two distinct characteristics of sound. Both share the same unit of measurement, the dB. However, sound power (expressed as L_{pw}) is the energy converted into sound by the source. As sound energy travels through the air, it creates a sound wave that exerts pressure on receivers, such as an eardrum or microphone, which is the sound pressure level. Sound measurement instruments only measure sound pressure, and noise level limits are typically expressed as sound pressure levels.

Noise levels from a point source (e.g., construction, industrial machinery, air conditioning units) typically attenuate, or drop off, at a rate of 6 dBA per doubling of distance. Noise from a line source (e.g., roadway, pipeline, railroad) typically attenuates at about 3 dBA per doubling of distance (Caltrans 2013). Noise levels may also be reduced by intervening structures; the amount of attenuation provided by this "shielding" depends on the size of the object and the frequencies of the noise levels. Natural terrain features, such as hills and dense woods, and man-made features, such as buildings and walls, can significantly alter noise levels. Generally, any large structure

blocking the line of sight will provide at least a 5-dBA reduction in source noise levels at the receiver (Federal Highway Administration [FHWA] 2011). Structures can substantially reduce exposure to noise as well. The FHWA's guidance indicates that modern building construction generally provides an exterior-to-interior noise level reduction of 10 dBA with open windows and an exterior-to-interior noise level reduction of 20 to 35 dBA with closed windows (FHWA 2011).

Descriptors

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important factors of project noise impact. Most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors have been developed. The noise descriptors used for this study are the equivalent noise level (L_{eq}), Day-Night Average Level (DNL; may also be symbolized as L_{dn}), and the community noise equivalent level (CNEL; may also be symbolized as L_{den}).

L_{eq} is one of the most frequently used noise metrics; it considers both duration and sound power level. The L_{eq} is defined as the single steady-state A-weighted sound level equal to the average sound energy over a time period. When no time period is specified, a 1-hour period is assumed. The L_{max} is the highest noise level within the sampling period, and the L_{min} is the lowest noise level within the measuring period. Normal conversational levels are in the 60 to 65-dBA L_{eq} range; ambient noise levels greater than 65 dBA L_{eq} can interrupt conversations (Federal Transit Administration [FTA] 2018).

Noise that occurs at night tends to be more disturbing than that occurring during the day. Community noise is usually measured using Day-Night Average Level (L_{dn}), which is the 24-hour average noise level with a +10 dBA penalty for noise occurring during nighttime hours (10:00 p.m. to 7:00 a.m.). Community noise can also be measured using Community Noise Equivalent Level (CNEL or L_{DEN}), which is the 24-hour average noise level with a +5 dBA penalty for noise occurring from 7:00 p.m. to 10:00 p.m. and a +10 dBA penalty for noise occurring from 10:00 p.m. to 7:00 a.m. (Caltrans 2013).[2] The relationship between the peak-hour L_{eq} value and the L_{dn}/CNEL depends on the distribution of noise during the day, evening, and night; however noise levels described by L_{dn} and CNEL usually differ by 1 dBA or less. Quiet suburban areas typically have CNEL noise levels in the range of 40 to 50 CNEL, while areas near arterial streets are in the 50 to 60+ CNEL range (FTA 2018).

2.2 Vibration

Groundborne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent buildings or structures and vibration energy may propagate through the buildings or structures. Vibration may be felt, may manifest as an audible low-frequency rumbling noise (referred to as groundborne noise), and may cause windows, items on shelves, and pictures on walls to rattle. Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants at vibration-sensitive land uses and may cause structural damage.

Typically, ground-borne vibration generated by manmade activities attenuates rapidly as distance from the source of the vibration increases. Vibration amplitudes are usually expressed in peak

[2] Because DNL and CNEL are typically used to assess human exposure to noise, the use of A-weighted sound pressure level (dBA) is implicit. Therefore, when expressing noise levels in terms of DNL or CNEL, the dBA unit is not included.

particle velocity (PPV). The PPV velocity is normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is often used as it corresponds to the stresses that are experienced by buildings (Caltrans 2020).

High levels of groundborne vibration may cause damage to nearby building or structures; at lower levels, groundborne vibration may cause minor cosmetic (i.e., non-structural damage) such as cracks. These vibration levels are nearly exclusively associated with high impact activities such as blasting, pile-driving, vibratory compaction, demolition, drilling, or excavation.

2.3 Sensitive Receivers

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. Noise sensitive land uses (also referred to as "sensitive receivers") include residential, including single and multifamily dwellings, mobile home parks, and dormitories; transient lodging, including hotels, and motels; hospitals, nursing homes, convalescent hospitals, and other facilities for long-term medical care; and public or private educational facilities, libraries, churches, and places of public assembly.

Vibration-sensitive receivers, which are similar to noise-sensitive receivers, include residences and institutional uses, such as schools, churches, and hospitals. Vibration-sensitive receivers also include buildings where vibrations may interfere with vibration-sensitive equipment that is affected by vibration levels that may be well below those associated with human annoyance (e.g., recording studies or medical facilities with sensitive equipment).

Noise and vibration-sensitive land uses are located throughout San José, as it is a predominantly residential city. San José also includes noise-sensitive land uses such as hotels and motels; group homes; churches; schools and other learning institutions; and libraries.

2.4 Project Noise Setting

The predominant source of noise in San José, as in most communities, is motor vehicles. Motor vehicle noise is characterized by a high number of individual events that can create a sustained noise level in proximity to noise-sensitive uses. Roadways with the highest traffic volumes and speeds produce the highest noise levels. The roadways in the project area with the highest traffic volumes and, thus, the highest noise levels include US 101, Interstates (I) 280, 680, and 880, and State Routes (SR) 17, 82, 85, 87, and 237.

Additional noise sources include rail noise, airport noise, and helicopter noise. Rail operations occur along the Valley Transportation Authority (VTA) rights-of-way and along the Union Pacific Railroad (UPRR) rights-of-way. Three light-rail lines are primarily located along major transportation corridors including Capitol Avenue, Tasman Drive, North First Street, SR 85, and SR 87. Heavy-rail tracks traverse the City from north to south from the Peninsula and East Bay. In addition to UPRR freight trains, rail operators also include the Altamont Commuter Express (ACE), Caltrain, Bay Area Rapid Transit (BART), and Amtrak. Noise associated with the San José Mineta International Airport (SJC) and Reid-Hillview Airport is a substantial contributor to day-night average noise levels at land uses near primary flight paths and the airports. In portions of the City away from the airports and flight paths, aircraft generate noise levels that are audible at times. Helicopter operations associated with hospital heliports are an additional noise source in the project area (City of San José 2011b).

2.5 Regulatory Setting

Federal

United States Department of Housing and Urban Development

The United States Department of Housing and Urban Development (HUD) has set a goal of 65 dBA L_{dn} as a desirable maximum exterior standard for residential units developed under HUD funding. (This level is also generally accepted by the State of California.) While HUD does not specify acceptable interior noise levels, standard construction of residential dwellings typically provides in excess of 20 dBA of attenuation with the windows closed. Based on this premise, the interior L_{dn} should not exceed 45 dBA.

State

California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires each county and city to adopt a General Plan that includes a Noise Element prepared per guidelines adopted by the Governor's Office of Planning and Research. The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels. CEQA requires all known environmental effects of a project be analyzed, including environmental noise impacts.

California Building Code

The California Building Code is Title 24 of the California Code of Regulations. California Building Code Part 2, Volume 1, Chapter 12, Section 1207.11.2, Allowable Interior Noise Levels, requires that interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The noise metric is evaluated as either the L_{dn} or the CNEL, consistent with the noise element of the local general plan.

California Building Code: California Green Building Standards Code

The State of California's noise insulation standards for nonresidential uses are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 11, California Green Building Standards Code. The California Green Building Standards Code noise standards are applied to new or renovation construction projects in California to control interior noise levels resulting from exterior noise sources. Proposed projects may use either the prescriptive method (Section 5.507.4.1) or the performance method (Section 5.507.4.2) to show compliance. Under the prescriptive method, a project must demonstrate transmission loss ratings for the wall and roof-ceiling assemblies and exterior windows when located within a noise environment of 65 dBA CNEL or higher. Under the performance method, a project must demonstrate that interior noise levels do not exceed 50 dBA $L_{eq(1hr)}$.

California Airport Noise Standards

California Code of Regulations Title 21, Subchapter 6, Airport Noise Standards, establishes 65 dBA CNEL as the acceptable level of aircraft noise for persons living in the vicinity of airports. Noise-sensitive land uses are generally incompatible in locations where the aircraft exterior noise level exceeds 65 dBA CNEL. This standard remains unless an aviation easement for aircraft noise has been

acquired by the airport proprietor, or the residence is a high-rise with an interior CNEL of 45 dBA or less in all habitable rooms. Assembly Bill (AB) 2776 requires any person who intends to sell or lease residential properties in an airport influence area to disclose that fact to the person buying the property.

City of San José Noise Standards

Envision San José 2040 General Plan

The City's General Plan establishes interior and exterior noise thresholds for different land uses within the City and vibration thresholds during demolition and construction. The following policies and actions are applicable to the project (City of San José 2011a):

Goal EC-1: Community Noise Levels and Land Use Compatibility. Minimize the impact of noise on people through noise reduction and suppression techniques, and through appropriate land use policies.

Policy EC-1.1 Locate new development in areas where noise levels are appropriate for the proposed uses. Consider federal, state and City noise standards and guidelines as a part of new development review. Applicable standards and guidelines for land uses in San José include:

Interior Noise Levels

The City's standard for interior noise levels in residences, hotels, motels, residential care facilities, and hospitals is 45 dBA DNL. Include appropriate site and building design, building construction and noise attenuation techniques in new development to meet this standard. For sites with exterior noise levels of 60 dBA DNL or more, an acoustical analysis following protocols in the City-adopted California Building Code is required to demonstrate that development projects can meet this standard. The acoustical analysis shall base required noise attenuation techniques on expected *Envision General Plan* traffic volumes to ensure land use compatibility and General Plan consistency over the life of this plan.

Exterior Noise Levels

The City's acceptable exterior noise level objective is 60 dBA DNL or less for residential and most institutional land uses (Table EC-1 [reproduced herein as Table 9]). The acceptable exterior noise level objective is established for the City, except in the environs of the San José International Airport and the Downtown, as described below:

- For new multi-family residential projects and for the residential component of mixed-use development, use a standard of 60 dBA DNL in usable outdoor activity areas, excluding balconies and residential stoops and porches facing existing roadways. Some common use areas that meet the 60 dBA DNL exterior standard will be available to all residents. Use noise attenuation techniques such as shielding by buildings and structures for outdoor common use areas. On sites subject to aircraft overflights or adjacent to elevated roadways, use noise attenuation

techniques to achieve the 60 dBA DNL standard for noise from sources other than aircraft and elevated roadway segments.

- For single family residential uses, use a standard of 60 dBA DNL for exterior noise in private usable outdoor activity areas, such as backyards.

Table 9 City of San José Noise and Land Use Compatibility Guidelines

Land Use Category	Noise Exposure Levels (DNL, dBA)		
	Normally Acceptable	Conditionally Acceptable	Unacceptable
Residential, Hotels and Motels, Hospitals, and Residential Care	50-60	60-75	>75
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds	50-65	65-80	>80
Schools, Libraries, Museums, Meeting Halls, Churches	50-60	60-75	>75
Office Buildings, Business Commercial, and Professional Offices	50-70	70-80	>80
Sports Arena, Outdoor Spectator Sports	50-70	70-80	>80
Public and Quasi Public Auditoriums, Concert Halls, Amphitheaters	NA	50-70	>70

Notes:

Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable: Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.

Unacceptable: New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies.

dBA = A-weighted sound pressure level; DNL = Day-Night Average Level

Source: City of San José 2011a

Policy EC-1.2 Minimize the noise impacts of new development on land uses sensitive to increased noise levels (Categories 1, 2, 3 and 6) by limiting noise generation and by requiring use of noise attenuation measures such as acoustical enclosures and sound barriers, where feasible. The City considers significant noise impacts to occur if a project would:

- Cause the DNL at noise sensitive receptors to increase by five dBA DNL or more where the noise levels would remain "Normally Acceptable"; or
- Cause the DNL at noise sensitive receptors to increase by three dBA DNL or more where noise levels would equal or exceed the "Normally Acceptable" level.

Policy EC-1.3 Mitigate noise generated by new nonresidential land uses to 55 dBA DNL at the property line when located adjacent to existing or planned noise sensitive residential and public/quasi-public land uses.

Policy EC-1.4 Include appropriate noise attenuation techniques in the design of all new General Plan streets projected to adversely impact noise sensitive uses.

Policy EC-1.7 Require construction operations within San José to use best available noise suppression devices and techniques and limit construction hours near residential uses per the City's Municipal Code. The City considers significant

construction noise impacts to occur if a project located within 500 feet of residential uses or 200 feet of commercial or office uses would:

- Involve substantial noise generating activities (such as building demolition, grading, excavation, pile driving, use of impact equipment, or building framing) continuing for more than 12 months.

For such large or complex projects, a construction noise logistics plan that specifies hours of construction, noise and vibration minimization measures, posting or notification of construction schedules, and designation of a noise disturbance coordinator who would respond to neighborhood complaints will be required to be in place prior to the start of construction and implemented during construction to reduce noise impacts on neighboring residents and other uses.

Policy EC-1.8 Allow commercial drive-through uses only when consistency with the City's exterior noise level guidelines and compatibility with adjacent land uses can be demonstrated.

Policy EC-1.9 Require noise studies for land use proposals where known or suspected loud intermittent noise sources occur which may impact adjacent existing or planned land uses. For new residential development affected by noise from heavy rail, light rail, BART or other single-event noise sources, implement mitigation so that recurring maximum instantaneous noise levels do not exceed 50 dBA L_{max} in bedrooms and 55 dBA L_{max} in other rooms.

Policy EC-1.10 Monitor Federal legislative and administrative activity pertaining to aircraft noise for new possibilities for noise-reducing modifications to aircraft engines beyond existing Stage 3 requirements. Encourage the use of quieter aircraft at the San José International Airport.

Policy EC-1.11 Require safe and compatible land uses within the Mineta International Airport noise zone (defined by the 65 CNEL contour as set forth in State law) and encourage aircraft operating procedures that minimize noise.

Policy EC-1.12 Encourage the Federal Aviation Administration to enforce current cruise altitudes that minimize the impact of aircraft noise on land use.

Action EC-1.13 Update noise limits and acoustical descriptors in the Zoning Code to clarify noise standards that apply to land uses throughout the City.

Action EC-1.14 Require acoustical analyses for proposed sensitive land uses in areas with exterior noise levels exceeding the City's noise and land use compatibility standards to base noise attenuation techniques on expected Envision General Plan traffic volumes to ensure land use compatibility and General Plan consistency.

Goal EC-2: Vibration. Minimize vibration impacts on people, residences, and business operations.

Policy EC-2.1 Near light and heavy rail lines or other sources of ground-borne vibration, minimize vibration impacts on people, residences, and businesses through the use of setbacks and/or structural design features that reduce vibration to levels at or below the guidelines of the Federal Transit Administration. Require new development within 100 feet of rail lines to demonstrate prior to project approval that vibration experienced by residents and vibration sensitive uses would not exceed these guidelines.

Policy EC-2.2 Require new sources of ground-borne vibration, such as transit along fixed rail systems or the operation of impulsive equipment, to minimize vibration impacts on existing sensitive land uses to levels at or below the guidelines of the Federal Transit Administration.

Policy EC-2.3 Require new development to minimize vibration impacts to adjacent uses during demolition and construction. For sensitive historic structures, a vibration limit of 0.08 in/sec PPV (peak particle velocity) will be used to minimize the potential for cosmetic damage to a building. A vibration limit of 0.20 in/sec PPV will be used to minimize the potential for cosmetic damage at buildings of normal conventional construction. Equipment or activities typical of generating continuous vibration include but are not limited to: excavation equipment; static compaction equipment; vibratory pile drivers; pile-extraction equipment; and vibratory compaction equipment. Avoid use of impact pile drivers within 125 feet of any buildings, and within 300 feet of historical buildings, or buildings in poor condition. On a project-specific basis, this distance of 300 feet may be reduced where warranted by a technical study by a qualified professional that verifies that there will be virtually no risk of cosmetic damage to sensitive buildings from the new development during demolition and construction. Transient vibration impacts may exceed a vibration limit of 0.08 in/sec PPV only when and where warranted by a technical study by a qualified professional that verifies that there will be virtually no risk of cosmetic damage to sensitive buildings from the new development during demolition and construction.

City of San José Municipal Code

The City of San José regulates noise through the City's Zoning Ordinance contained in SJMC Chapter 20. SJMC Chapter 20.30.700 establishes noise standards for residential zoning districts. The sound pressure level generated by any residential use shall not exceed 55 dBA L_{max} at the property line, except upon issuance and in compliance with a special user permit.

Chapter 20.100.450 limits the hours of construction on sites within 500 feet of a residential land use between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and does not allow construction at any time on weekends.

3 Methodology

3.1 Construction Noise

Construction noise levels that could occur with implementation of the project are based on reference noise levels published by the FTA.

3.2 Stationary On-Site Operational Noise

The primary on-site noise sources associated with operation of residential development would include noise from stationary heating, ventilation, and air conditioning (HVAC) equipment, delivery trucks, trash hauling, and outdoor activities.

3.3 Mobile Off-site Operational (Traffic) Noise

Noise affecting the City is primarily from traffic on major highways and roadways that traverse the City. Project traffic noise increases were estimated using the average daily traffic (ADT) data provided by Hexagon Transportation Consultants, Inc for the project (Hexagon Transportation Consultants, Inc 2023). Existing, cumulative, and cumulative with project traffic volume estimates along the roadway study segments are shown in Table 10**Error! Reference source not found.**.

Table 10 Existing, Cumulative, and Cumulative Plus Project Roadway ADT Volumes

		Roadway Segment Volumes (ADT)		
Roadway	Segment	Baseline	Cumulative	Cumulative + Project
First Street	Burton Street to Younger Avenue	29,500	38,400	38,800
First Street	Holger Way to SR 237	37,000	63,400	62,000
First Street	I-280 to Reed Street	25,500	43,300	43,000
First Street	Trimble Road to Component Drive	34,500	51,600	53,400
Seventh Street	I-280 to Margaret Street	11,900	13,500	14,300
Tenth Street	Commercial Street to US 101	21,700	40,400	39,200
Tenth / Eleventh Street	Julian Street to Washington Street	23,500	33,600	32,700
Eleventh Street	Margaret Street to Virginia Street	38,400	50,000	48,100
Thirteenth Street	Madera Avenue to Berryessa Road	29,200	43,200	43,000
Aborn Road	Capitol Expressway to Rock Water Lane	48,700	58,800	58,600
Almaden Expressway	Foxchase Drive to Blossom Hill Road	93,000	99,200	100,000
Almaden Expressway	Lillian Way to Cloverhill Drive	42,300	43,600	43,800
Almaden Expressway	Old Almaden Road to Lincoln Avenue	55,600	80,000	79,900
Almaden Road	Vine Street to Almaden Expressway	35,000	50,900	51,100
Alum Rock Avenue	Capitol Avenue to Sierra Vista Place	24,500	30,100	29,400
Bailey Avenue	McKean Road to Santa Teresa Boulevard	9,200	9,700	10,000
Bailey Avenue	Monterey Road to US 101	24,800	33,500	29,400

Roadway	Segment	Roadway Segment Volumes (ADT)		
		Baseline	Cumulative	Cumulative + Project
Bascom Avenue	Downing Avenue to Leon Drive	30,000	41,300	40,600
Bascom Avenue	Dry Creek Road to Surrey Place	21,400	39,700	39,100
Bascom Avenue	East Mozart Avenue to Loretta Lane	31,300	49,000	48,100
Bascom Avenue	Nedbush Terrace to Cherrystone Drive	35,000	52,400	53,000
Berryessa Road	Capitol Avenue to I-880	31,300	42,600	43,900
Berryessa Road	Cornish Lane to Commercial Street	35,900	67,400	67,400
Blossom Hill Road	Eagles Lane to Judith Street	24,600	44,400	44,400
Blossom Hill Road	Sanchez Drive to Winfield Boulevard	23,600	36,000	35,300
Blossom Hill Road	Union Avenue to Greenridge Terrace	16,700	20,800	21,100
Branham Lane	Glenmont Drive to Pearl Avenue	23,600	27,000	27,800
Brokaw Road	I-880 to Ridder Park	54,400	63,700	63,800
Camden Avenue	Coleman Road to Hicks Road	22,200	27,700	27,700
Camden Avenue	Curtner Avenue to Erin Way	47,600	62,100	63,300
Camden Avenue	Leigh Avenue to Hillsdale Avenue	53,900	60,100	60,300
Capitol Avenue	Gay Avenue to Madden Avenue	21,200	34,500	35,100
Capitol Avenue	Montague Expressway to Cropley Avenue	28,200	45,800	45,400
Capitol Avenue	Sierra Road to Old Post Way	23,000	34,700	34,500
Capitol Expressway	Old Almaden Road to Pearl Avenue	40,400	52,200	52,300
Capitol Expressway	Cunningham Avenue to Tully Road	66,300	78,200	77,600
Capitol Expressway	I-680 to Camas Avenue	76,300	87,200	86,600
Capitol Expressway	Seven Trees Boulevard to Monterey Road	62,800	80,300	80,000
Capitol Expressway	Silver Creek Road to Aborn Road	76,400	100,000	99,100
Coleman Avenue	Brokaw Road to Airport Boulevard	38,700	65,400	65,400
Curtner Avenue	Cherry Avenue to Nola Drive	27,700	39,600	41,000
East Brokaw Road	Zanker Road to Rogers Avenue	40,100	55,900	54,500
Guadalupe Parkway	US 101 to Orchard Parkway	36,700	57,600	57,800
Hale Avenue	Kalana Avenue to Palm Avenue	9,200	14,900	15,000
Hamilton Avenue	Highway 17 to Bascom Avenue	45,700	63,700	63,400
Hedding Street	Ruff Drive to SR 87	20,000	24,600	24,500
Hostetter Road	Automation Parkway to Rue Avati	38,100	50,200	50,500
Julian Street	21st Street to 24th Street	10,600	16,500	16,000
King Road	Havana Drive to Cunningham Avenue	24,900	32,700	32,900
King Road	St. James Street to Wilshire Boulevard	11,600	26,500	25,800
Lawrence Expressway	Doyle Road to Prospect Road	40,800	46,800	47,000
Leigh Avenue	Dry Creek Road to Bent Drive	27,400	21,800	21,700
Lincoln Avenue	Minnesota Avenue to Brace Avenue	13,400	18,600	18,800
Mabury Road	Capitol Avenue to Cedarville Lane	10,300	24,800	24,800
Mabury Road	Educational Park to Jackson Avenue	9,400	23,000	22,800
Mabury Road	Lenfest Avenue to Taylor Street	10,700	38,800	41,300

Roadway	Segment	Roadway Segment Volumes (ADT)		
		Baseline	Cumulative	Cumulative + Project
Market Street	San Pedro Street to SR 87	24,300	46,500	46,200
McKean Road	Harry Road to Hunters Hill Road	8,000	15,700	15,600
McKee Road	Capitol Avenue to I-680	46,200	51,800	51,900
Meridian Avenue	Dry Creek Road to Campbell Avenue	23,800	33,500	34,600
Meridian Avenue	Southwest Expressway to Fruitdale Avenue	27,300	35,300	33,900
Montague Expressway	Guadalupe River to Orchard Drive	90,000	130,300	131,800
Montague Expressway	O'Toole Avenue to I-880	88,800	122,400	122,800
Monterey Road	Bellevue Avenue to San Jose Avenue	28,900	43,900	44,200
Monterey Road	Bouganvilla Drive to Branham Lane	33,300	37,300	37,500
Monterey Road	Kalana Avenue to Palm Avenue	20,100	31,500	31,400
Monterey Road	Metcalf Road to Blanchard Road	19,500	29,600	29,700
Monterey Road	SR 85 to Bernal Road	19,300	27,000	27,000
Moorpark Avenue	Borina Drive to Castlewood Drive	9,300	10,800	10,900
Morrill Avenue	Hostetter Road to Cataldi Way	19,000	33,900	33,500
Oakland Road	Montague Expressway to Atteberry Lane	12,800	42,900	41,400
Piedmont Road	Penetencia Creek Road to Noble Avenue	13,300	21,700	22,000
Quimby Road	Capitol Expressway to Keppler Drive	38,500	43,400	43,500
San Carlos Street	SR 87 to Almaden Road	10,100	36,300	34,900
San Felipe Road	Heartland Way to Metcalf Road	1,000	1,500	1,500
San Felipe Road	Yerba Buena Road to Park Estates Way	20,900	25,400	25,400
San Tomas Expressway	Williams Road to Payne Avenue	45,600	71,100	71,000
Santa Clara Street	19th Street to 17th Street	29,900	24,900	24,500
Santa Clara Street	Almaden Road to SR 87	27,100	20,700	20,500
Santa Teresa Boulevard	Bayliss Drive to Laguna Seca Creek	9,900	26,400	26,000
Santa Teresa Boulevard	Chesbro Avenue to Indian Avenue	24,300	41,500	41,500
Santa Teresa Boulevard	Miyuki Drive to San Ignacio Avenue	16,000	35,300	35,300
Santa Teresa Boulevard	SR 85 to Thornwood Drive	48,300	58,500	59,200
Saratoga Avenue	Los Felice Drive to Country Lane	22,700	32,900	33,000
Saratoga Avenue	Moorpark Avenue to I-280	57,000	70,800	71,300
Senter Road	Dadis Way to Lewis Road	23,500	34,600	34,700
Silver Creek Valley Road	US 101 to Monterey Road	53,400	72,400	72,800
Southwest Expwy	Leigh Avenue to La Barbera Drive	30,500	42,900	42,200
Stevens Creek Boulevard	I-880 to Wainright Avenue	14,800	46,900	45,700
Story Road	12th Street to Senter Road	39,000	57,700	57,600
Story Road	Capitol Expressway to Sollmar Drive	39,700	44,900	45,500
Story Road	King Road to Bal Harbor Way	22,100	30,600	30,000
Story Road	US 101 to Knox Avenue	37,900	53,400	52,000
Tasman Drive	Guadalupe River to Renaissance Drive	28,400	50,500	49,700

Roadway	Segment	Roadway Segment Volumes (ADT)		
		Baseline	Cumulative	Cumulative + Project
Tasman Drive	McCarthy Boulevard to Cisco Way	37,800	76,300	74,100
The Alameda	I-880 to Alameda Way	35,700	61,000	60,300
The Alameda	Martin Avenue to Julian Street	26,200	47,700	47,400
Trimble Road	Junction Avenue to Montague Expressway	37,600	63,500	63,400
Trimble Road	Orchard Parkway to De La Cruz Boulevard	37,500	69,700	72,300
Tully Road	Brahms Avenue to Quimby Road	32,500	36,700	36,600
Tully Road	Capitol Expressway to Glen Hanleigh Drive	31,900	39,100	39,000
Tully Road	Galveston Avenue to La Rasione Avenue	39,100	54,100	54,400
Union Avenue	SR 85 to Logic Drive	21,300	29,900	30,200
White Road	Mount McKinley Drive to Mount Vista Drive	26,500	34,100	33,800
White Road	Stevens Lane to Westbranch Drive	26,800	41,500	41,000
Winchester Boulevard	Fireside Drive to Greentree Way	33,600	38,900	38,700
Winchester Boulevard	Tisch Way to I-280	43,100	60,100	60,200
Yerba Buena Road	Baronet Court to Chisin Street	28,700	37,200	37,400
Zanker Road	SR 237 to Holger Way	36,700	60,000	61,100

ADT = average daily traffic

Source: Hexagon Transportation Consultants, Inc 2023.

3.4 Groundborne Vibration

The project would not include substantial vibration sources associated with operation. Construction activities have the greatest potential to generate groundborne vibration affecting nearby noise-sensitive receivers. Construction vibration levels that could occur due to buildout of the project are based on reference vibration levels published by the FTA.

3.5 Aviation Noise

The airport noise contours for SJC and Reid-Hillview County Airport with respect to the location of housing opportunity sites were utilized to determine potential impacts from exposure to aviation-related noise.

3.6 General Plan Land Use Compatibility

As a result of the Supreme Court decision regarding the assessment of the environment's impacts on projects (California Building Industry Association (CBIA) v. Bay Area Air Quality Management District (BAAQMD), 62 Cal. 4th 369 (No. S 213478) issued December 17, 2015), it is generally no longer the purview of the CEQA process to evaluate the impact of existing environmental conditions

on a proposed project. However, this environmental analysis considers the potential impacts of the environment on the project for informational purposes.

The implementation of the project would have the potential to change the existing amounts of residential land uses within the City by placing more residential uses than previously planned for in the 2040 General Plan. These residential noise-sensitive receivers would be exposed to transportation noise from roadways, rail, and aircraft, and may be exposed to noise levels that exceed the City's land use compatibility guidelines for noise. These standards are shown in Table 9 above.

As part of the 2040 General Plan EIR, future (2035) noise contours from roadway noise sources were modeled and presented in Figure 3.3-2 and included in Appendix A of this document. As shown in the figure, many of the opportunity housing sites located nearby major roadways would be within at least the 70 dBA DNL noise contours. The noise is dominated by traffic on US 101, I-280, I-680, I-880, SR 85, SR 87, and other major arterials such as Almaden Expressway, Capitol Avenue/Capitol Expressway, and First Street. It should be noted that these calculations do not account for topography or shielding from existing buildings, which would result in lower noise levels as the noise travels farther from the roadways. Noise levels along the railroad and light rails were estimated to remain similar to existing conditions (City of San José 2011b). Existing traffic noise contours in the 2040 General Plan generally align with the contour predictions, with noise dominated by major highways and arterials. Therefore, there would be the potential for noise levels at future residential development as part of the Housing Element to be exposed to noise levels that exceed the City's compatibility guidelines. General Plan policies EC-1.1, EC-1.8, and EC-1.9 and Actions EC-1.13 and EC-1.14 would reduce noise levels at new proposed uses.

Policy EC-1.1 sets interior and exterior noise standards and requires that new development be located in areas where noise levels are appropriate for the proposed uses. Policy EC-1.8 allows commercial drive-through uses only when consistency with the City's exterior noise level guidelines and compatibility with adjacent land uses can be demonstrated. Policy EC-1.9 requires noise studies for land use proposals where known or suspected loud intermittent noise sources may impact adjacent planned land uses and to implement mitigation to reduce noise levels. Action EC-1.13 calls for the City to update noise limits and acoustical descriptors in the Zoning Code to clarify noise standards that apply to land uses throughout the City. Action EC-1.14 requires acoustical analyses for proposed sensitive land uses in areas with exterior noise levels exceeding the City's noise and land use compatibility standards.

The application of the policies and actions outlined in the 2040 General Plan would ensure that siting, design, and construction standards for new residential developments facilitated by the Housing Element would avoid or minimize noise impacts to acceptable levels of noise exposure.

3.7 Significance Thresholds

To determine whether a project would have a significant noise impact, Appendix G of the California Environmental Quality Act (CEQA) Guidelines requires consideration of whether a project would result in:

1. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies
2. Generation of excessive groundborne vibration or groundborne noise levels

3. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels

Construction Noise

A significant noise impact would occur if construction-related noise would temporarily increase ambient noise levels at sensitive receivers. The City of San José considers large or complex projects involving substantial noise-generating activities and lasting more than 12 months significant when within 500 feet of residential land uses or within 200 feet of commercial land uses or offices.

Operational Noise

A significant permanent noise level increase would occur if the project would result in: a) a noise level increase of 5 dBA DNL or greater, with a future noise level of less than 60 dBA DNL, or b) a noise level increase of 3 dBA DNL or greater, with a future noise level of 60 dBA DNL or greater.

Construction Vibration

A significant impact would be identified if construction of the project would generate excessive vibration levels at surrounding receivers. Groundborne vibration levels exceeding 0.08 in/sec PPV would have the potential to result in cosmetic damage to historic buildings, and groundborne vibration levels exceeding 0.2 in/sec PPV would have the potential to result in cosmetic damage to normal buildings.

Exposure to Aircraft Noise

A significant noise impact would be identified if the project would expose people residing or working in the project area to excessive aircraft noise levels.

4 Impact Analysis

4.1 Issue 1

Issue: Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction

Noise from individual construction projects facilitated by the Housing Element would temporarily increase noise levels at nearby noise-sensitive receivers. Since at this stage of planning, project-level details are not available for future projects that would be carried out under the Housing Element, it is not possible to determine exact noise levels or time periods for construction of such projects, or construction noise at adjacent properties. However, noise estimates for typical construction activities have been provided below.

Construction activities would generate noise from phases such as demolition, site preparation, grading, building construction, and paving activities. Each phase of construction has a specific equipment mix and associated noise characteristics, depending on the equipment used during that phase. Construction noise would typically be higher during the more equipment-intensive phases of initial construction (i.e., demolition, site preparation, and grading work) and would be lower during the later construction phases (i.e., building construction and paving). Table 11 illustrates typical noise levels associated with construction equipment at a distance of 50 feet and 100 feet.

Table 11 Typical Noise Levels for Construction Equipment

	Estimated Noise Levels at Nearest Sensitive Receptors (dBA L_{eq})	
Equipment	**50 feet**	**100 feet**
Air Compressor	80	74
Backhoe	80	74
Concrete Mixer	85	79
Dozer	85	79
Grader	85	79
Jack Hammer	88	82
Loader	80	74
Paver	85	79
Pile-drive (Impact)	101	95
Pile-driver (Sonic)	95	89
Roller	85	79
Saw	76	70
Scarified	83	77
Scraper	85	79
Truck	84	78

Source: FTA 2018

Noise would typically drop off at a rate of about 6 dBA per doubling of distance. Therefore, noise levels would be about 6 dBA lower than shown in Table 11 at 200 feet from the noise source and 12 dBA lower at a distance of 400 feet from the noise source.

The City of San José does not currently have any established quantitative noise standards for construction noise. However, according to the City's 2040 General Plan, a project would have a significant impact if it generates substantial noise continuing for more than 12 months within 500 feet of a residence or 200 feet of commercial or office use, or does not use best available suppression devices and techniques. Since at this stage of planning, project-level details are not available for future projects that would be facilitated by the Housing Element, it is not possible to determine exact noise levels or time periods for construction of such projects, or construction noise at adjacent properties. Therefore, construction noise levels associated with future projects may continue for more than 12 moths within 500 feet of a residence or 200 feet of commercial or office use and construction noise would represent a potentially significant impact

Implementation of Mitigation Measure NOI-1 would reduce construction noise impacts associated with the project by limiting construction activities to certain times of day, constructing temporary noise barriers, prohibiting unnecessary idling, locating stationary equipment as far as possible from sensitive receivers, erecting temporary noise control blanket barriers, notifying nearby residents of noise-generating construction activities, and designating a disturbance coordinator to handle noise complaints. Therefore, with implementation of Mitigation Measure NOI-1, construction noise impacts would be less than significant.

Operation

Stationary Noise

Stationary and other sources of noise in San José include those associated with the standard operation of land uses. These sources could include, but are not limited to, landscape and building maintenance activities, stationary mechanical equipment (e.g., pumps, HVAC units), garbage collection activities, and other stationary and area sources such as people's voices and amplified music.

Noise generated by residential uses are generally short-term and intermittent in nature. The Housing Element would provide for an increase in residential development throughout the City. Residential development tends to have lower noise levels associated than other uses, such as industrial or commercial uses.

2040 General Plan policy EC-1.2 would protect residents from excessive noise by requiring new development to minimize noise impacts on land uses sensitive to increased noise levels. Additionally, 2040 General Plan policy EC-1.9 would require noise studies for land use proposals where known or suspected loud intermittent noise sources occur and would require mitigation so that recurring maximum instantaneous noise levels do not exceed 50 dBA L_{max} in bedrooms and 55 dBA L_{max} in other rooms. The San José Municipal Code also limits the noise level generated by residential development to 55 dBA L_{max} at the property line. Therefore, future stationary noise sources would comply with City standards and would not expose people to excessive noise levels. This would be a less-than-significant impact.

MOBILE NOISE

Implementation of the project would allow additional buildout, which would generate new vehicle trips that could incrementally increase the exposure of land uses along roadways to operational traffic noise. Table 12 summarizes the estimated project and cumulative traffic noise increases based on ADT traffic volume data provided by Hexagon Transportation Consultants, Inc (Hexagon Transportation Consultants, Inc 2023).

As shown in Table 12, the maximum increase in traffic noise under cumulative conditions would be 5.9 dBA along Mabury Road between Lenfast Avenue and Taylor Street. The project's contribution to the cumulative increase from traffic noise would be a maximum of 0.3 dBA along Mabury Road between Lenfast Avenue and Taylor Street. The project's contribution to cumulative traffic noise levels would not exceed the most stringent significance threshold of 3 dBA DNL identified in Section 3.7, Significance Thresholds. Therefore, operational traffic noise impacts would be less than significant.

Table 12 Summary of Project and Cumulative Traffic Noise Increases

		Roadway Segment Volumes (ADT)			dBA (DNL)	
Roadway	Segment	Baseline	Cumulative	Cumulative + Project	Cumulative Increase	Project Cumulative Contribution
First Street	Burton Street to Younger Avenue	29,500	38,400	38,800	1.2	0.0
First Street	Holger Way to SR 237	37,000	63,400	62,000	2.2	-0.1
First Street	I-280 to Reed Street	25,500	43,300	43,000	2.3	0.0
First Street	Trimble Road to Component Drive	34,500	51,600	53,400	1.9	0.1
Seventh Street	I-280 to Margaret Street	11,900	13,500	14,300	0.8	0.3
Tenth Street	Commercial Street to US 101	21,700	40,400	39,200	2.6	-0.1
Tenth/Eleventh Street	Julian Street to Washington Street	23,500	33,600	32,700	1.4	-0.1
Eleventh Street	Margaret Street to Virginia Street	38,400	50,000	48,100	1.0	-0.2
Thirteenth Street	Madera Avenue to Berryessa Road	29,200	43,200	43,000	1.7	0.0
Aborn Road	Capitol Expressway to Rock Water Lane	48,700	58,800	58,600	0.8	0.0
Almaden Expressway	Foxchase Drive to Blossom Hill Road	93,000	99,200	100,000	0.3	0.0
Almaden Expressway	Lillian Way to Cloverhill Drive	42,300	43,600	43,800	0.2	0.0
Almaden Expressway	Old Almaden Road to Lincoln Avenue	55,600	80,000	79,900	1.6	0.0
Almaden Road	Vine Street to Almaden Expressway	35,000	50,900	51,100	1.6	0.0
Alum Rock Avenue	Capitol Avenue to Sierra Vista Place	24,500	30,100	29,400	0.8	-0.1
Bailey Avenue	McKean Road to Santa Teresa Boulevard	9,200	9,700	10,000	0.4	0.1
Bailey Avenue	Monterey Road to US 101	24,800	33,500	29,400	0.7	-0.6
Bascom Avenue	Downing Avenue to Leon Drive	30,000	41,300	40,600	1.3	-0.1
Bascom Avenue	Dry Creek Road to Surrey Place	21,400	39,700	39,100	2.6	-0.1
Bascom Avenue	East Mozart Avenue to Loretta Lane	31,300	49,000	48,100	1.9	-0.1
Bascom Avenue	Nedbush Terrace to Cherrystone Drive	35,000	52,400	53,000	1.8	0.0
Berryessa Road	Capitol Avenue to I-880	31,300	42,600	43,900	1.5	0.1

		Roadway Segment Volumes (ADT)			dBA (DNL)	
Roadway	Segment	Baseline	Cumulative	Cumulative + Project	Cumulative Increase	Project Cumulative Contribution
Berryessa Road	Cornish Lane to Commercial Street	35,900	67,400	67,400	2.7	0.0
Blossom Hill Road	Eagles Lane to Judith Street	24,600	44,400	44,400	2.6	0.0
Blossom Hill Road	Sanchez Drive to Winfield Boulevard	23,600	36,000	35,300	1.7	-0.1
Blossom Hill Road	Union Avenue to Greenridge Terrace	16,700	20,800	21,100	1.0	0.1
Branham Lane	Glenmont Drive to Pearl Avenue	23,600	27,000	27,800	0.7	0.1
Brokaw Road	I-880 to Ridder Park	54,400	63,700	63,800	0.7	0.0
Camden Avenue	Coleman Road to Hicks Road	22,200	27,700	27,700	1.0	0.0
Camden Avenue	Curtner Avenue to Erin Way	47,600	62,100	63,300	1.2	0.1
Camden Avenue	Leigh Avenue to Hillsdale Avenue	53,900	60,100	60,300	0.5	0.0
Capitol Avenue	Gay Avenue to Madden Avenue	21,200	34,500	35,100	2.2	0.1
Capitol Avenue	Montague Expressway to Cropley Avenue	28,200	45,800	45,400	2.1	0.0
Capitol Avenue	Sierra Road to Old Post Way	23,000	34,700	34,500	1.8	0.0
Capitol Expressway	Old Almaden Road to Pearl Avenue	40,400	52,200	52,300	1.1	0.0
Capitol Expressway	Cunningham Avenue to Tully Road	66,300	78,200	77,600	0.7	0.0
Capitol Expressway	I-680 to Camas Avenue	76,300	87,200	86,600	0.5	0.0
Capitol Expressway	Seven Trees Boulevard to Monterey Road	62,800	80,300	80,000	1.1	0.0
Capitol Expressway	Silver Creek Road to Aborn Road	76,400	100,000	99,100	1.1	0.0
Coleman Avenue	Brokaw Road to Airport Boulevard	38,700	65,400	65,400	2.3	0.0
Curtner Avenue	Cherry Avenue to Nola Drive	27,700	39,600	41,000	1.7	0.2
East Brokaw Road	Zanker Road to Rogers Avenue	40,100	55,900	54,500	1.3	-0.1
Guadalupe Parkway	US 101 to Orchard Parkway	36,700	57,600	57,800	2.0	0.0
Hale Avenue	Kalana Avenue to Palm Avenue	9,200	14,900	15,000	2.1	0.0
Hamilton Avenue	Highway 17 to Bascom Avenue	45,700	63,700	63,400	1.4	0.0

Roadway	Segment	Roadway Segment Volumes (ADT)			dBA (DNL)	
		Baseline	Cumulative	Cumulative + Project	Cumulative Increase	Project Cumulative Contribution
Hedding Street	Ruff Drive to SR 87	20,000	24,600	24,500	0.9	0.0
Hostetter Road	Automation Parkway to Rue Avati	38,100	50,200	50,500	1.2	0.0
Julian Street	21st Street to 24th Street	10,600	16,500	16,000	1.8	-0.1
King Road	Havana Drive to Cunningham Avenue	24,900	32,700	32,900	1.2	0.0
King Road	St. James Street to Wilshire Boulevard	11,600	26,500	25,800	3.5	-0.1
Lawrence Expressway	Doyle Road to Prospect Road	40,800	46,800	47,000	0.6	0.0
Leigh Avenue	Dry Creek Road to Bent Drive	27,400	21,800	21,700	-1.0	0.0
Lincoln Avenue	Minnesota Avenue to Brace Avenue	13,400	18,600	18,800	1.5	0.0
Mabury Road	Capitol Avenue to Cedarville Lane	10,300	24,800	24,800	3.8	0.0
Mabury Road	Educational Park to Jackson Avenue	9,400	23,000	22,800	3.8	0.0
Mabury Road	Lenfest Avenue to Taylor Street	10,700	38,800	41,300	5.9	0.3
Market Street	San Pedro Street to SR 87	24,300	46,500	46,200	2.8	0.0
McKean Road	Harry Road to Hunters Hill Road	8,000	15,700	15,600	2.9	0.0
McKee Road	Capitol Avenue to I-680	46,200	51,800	51,900	0.5	0.0
Meridian Avenue	Dry Creek Road to Campbell Avenue	23,800	33,500	34,600	1.6	0.1
Meridian Avenue	Southwest Expressway to Fruitdale Avenue	27,300	35,300	33,900	0.9	-0.2
Montague Expressway	Guadalupe River to Orchard Drive	90,000	130,300	131,800	1.7	0.0
Montague Expressway	O'Toole Avenue to I-880	88,800	122,400	122,800	1.4	0.0
Monterey Road	Bellevue Avenue to San Jose Avenue	28,900	43,900	44,200	1.8	0.0
Monterey Road	Bouganvilla Drive to Branham Lane	33,300	37,300	37,500	0.5	0.0
Monterey Road	Kalana Avenue to Palm Avenue	20,100	31,500	31,400	1.9	0.0
Monterey Road	Metcalf Road to Blanchard Road	19,500	29,600	29,700	1.8	0.0
Monterey Road	SR 85 to Bernal Road	19,300	27,000	27,000	1.5	0.0

		Roadway Segment Volumes (ADT)			dBA (DNL)	
Roadway	Segment	Baseline	Cumulative	Cumulative + Project	Cumulative Increase	Project Cumulative Contribution
Moorpark Avenue	Borina Drive to Castlewood Drive	9,300	10,800	10,900	0.7	0.0
Morrill Avenue	Hostetter Road to Cataldi Way	19,000	33,900	33,500	2.5	-0.1
Oakland Road	Montague Expressway to Atteberry Lane	12,800	42,900	41,400	5.1	-0.2
Piedmont Road	Penetencia Creek Road to Noble Avenue	13,300	21,700	22,000	2.2	0.1
Quimby Road	Capitol Expressway to Keppler Drive	38,500	43,400	43,500	0.5	0.0
San Carlos Street	SR 87 to Almaden Road	10,100	36,300	34,900	5.4	-0.2
San Felipe Road	Heartland Way to Metcalf Road	1,000	1,500	1,500	1.8	0.0
San Felipe Road	Yerba Buena Road to Park Estates Way	20,900	25,400	25,400	0.8	0.0
San Tomas Expressway	Williams Road to Payne Avenue	45,600	71,100	71,000	1.9	0.0
Santa Clara Street	19th Street to 17th Street	29,900	24,900	24,500	-0.9	-0.1
Santa Clara Street	Almaden Road to SR 87	27,100	20,700	20,500	-1.2	0.0
Santa Teresa Boulevard	Bayliss Drive to Laguna Seca Creek	9,900	26,400	26,000	4.2	-0.1
Santa Teresa Boulevard	Chesbro Avenue to Indian Avenue	24,300	41,500	41,500	2.3	0.0
Santa Teresa Boulevard	Miyuki Drive to San Ignacio Avenue	16,000	35,300	35,300	3.4	0.0
Santa Teresa Boulevard	SR 85 to Thornwood Drive	48,300	58,500	59,200	0.9	0.1
Saratoga Avenue	Los Felice Drive to Country Lane	22,700	32,900	33,000	1.6	0.0
Saratoga Avenue	Moorpark Avenue to I-280	57,000	70,800	71,300	1.0	0.0
Senter Road	Dadis Way to Lewis Road	23,500	34,600	34,700	1.7	0.0
Silver Creek Valley Road	US 101 to Monterey Road	53,400	72,400	72,800	1.3	0.0
Southwest Expwy	Leigh Avenue to La Barbera Drive	30,500	42,900	42,200	1.4	-0.1
Stevens Creek Boulevard	I-880 to Wainright Avenue	14,800	46,900	45,700	4.9	-0.1
Story Road	12th Street to Senter Road	39,000	57,700	57,600	1.7	0.0
Story Road	Capitol Expressway to Sollmar Drive	39,700	44,900	45,500	0.6	0.1
Story Road	King Road to Bal Harbor Way	22,100	30,600	30,000	1.3	-0.1

Roadway	Segment	Roadway Segment Volumes (ADT)			dBA (DNL)	
		Baseline	Cumulative	Cumulative + Project	Cumulative Increase	Project Cumulative Contribution
Story Road	US 101 to Knox Avenue	37,900	53,400	52,000	1.4	-0.1
Tasman Drive	Guadalupe River to Renaissance Drive	28,400	50,500	49,700	2.4	-0.1
Tasman Drive	McCarthy Boulevard to Cisco Way	37,800	76,300	74,100	2.9	-0.1
The Alameda	I-880 to Alameda Way	35,700	61,000	60,300	2.3	-0.1
The Alameda	Martin Avenue to Julian Street	26,200	47,700	47,400	2.6	0.0
Trimble Road	Junction Avenue to Montague Expressway	37,600	63,500	63,400	2.3	0.0
Trimble Road	Orchard Parkway to De La Cruz Boulevard	37,500	69,700	72,300	2.9	0.2
Tully Road	Brahms Avenue to Quimby Road	32,500	36,700	36,600	0.5	0.0
Tully Road	Capitol Expressway to Glen Hanleigh Drive	31,900	39,100	39,000	0.9	0.0
Tully Road	Galveston Avenue to La Rasione Avenue	39,100	54,100	54,400	1.4	0.0
Union Avenue	SR 85 to Logic Drive	21,300	29,900	30,200	1.5	0.0
White Road	Mount McKinley Drive to Mount Vista Drive	26,500	34,100	33,800	1.1	0.0
White Road	Stevens Lane to Westbranch Drive	26,800	41,500	41,000	1.8	-0.1
Winchester Boulevard	Fireside Drive to Greentree Way	33,600	38,900	38,700	0.6	0.0
Winchester Boulevard	Tisch Way to I-280	43,100	60,100	60,200	1.5	0.0
Yerba Buena Road	Baronet Court to Chisin Street	28,700	37,200	37,400	1.1	0.0
Zanker Road	SR 237 to Holger Way	36,700	60,000	61,100	2.2	0.1

ADT = Average Daily Traffic

DNL = Day-Night Average

Source: Hexagon Transportation Consultants, Inc 2023

Mitigation Measures

Mitigation Measure NOI-1 Construction Noise Reduction Measures

Prior to the issuance of any grading permits or demolition, the project applicant shall submit and implement a construction noise control plan that specifies hours of construction, noise minimization measures, posting and notification of construction schedules, equipment to be used, and designation of a noise disturbance coordinator. The noise disturbance coordinator shall respond to neighborhood complaints and shall be in place prior to the start of construction and implemented during construction to reduce noise impacts on neighboring residents and other uses. As part of the noise logistic plan and project, construction activities for future projects facilitated by the Housing Element shall include, but are not limited to, the following best management practices:

- Construction activities shall be limited to the hours between 7:00 a.m. and 7:00 p.m., Monday through Friday, unless permission is granted with a development permit or other planning approval. No construction activities are permitted on the weekends at sites within 500 feet of a residence.
- Construct temporary noise barriers, where feasible, to screen mobile and stationary construction equipment. The temporary noise barrier fences would provide noise reduction if the noise barrier interrupts the line-of-sight between the noise source and receiver and if the barrier is constructed in a manner that eliminates any cracks or gaps. Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Prohibit unnecessary idling of internal combustion engines.
- Locate stationary noise-generating equipment such as air compressors or portable power generators as far as possible from sensitive receivers. Construct temporary noise barriers to screen stationary noise-generating equipment when located near adjoining sensitive land uses. Temporary noise barriers could reduce construction noise levels by at least 5 dBA.
- Utilize “quiet” air compressors and other stationary noise sources where technology exists.
- Control noise from construction workers’ radios to a point where it is not audible at existing residences bordering the project site.
- A temporary noise control blanket barrier could be erected, if necessary, along building facades facing construction sites. This mitigation would only be necessary if conflicts occurred which were irresolvable by proper scheduling. Noise control blanket barriers can be rented and quickly erected.
- Notify all adjacent businesses, residences, and other noise-sensitive land uses of the construction schedule, in writing, and provide a written schedule of “noisy” construction activities to the adjacent land uses and nearby residences.
- Designate a “disturbance coordinator” who would be responsible for responding to any complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., bad muffler) and will require that reasonable measures be implemented to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include in it the notice sent to neighbors regarding the construction schedule.
- The noise control plan shall be submitted to the Director of Planning, Building, and Code Enforcement or Director’s designee for review and approval prior to the issuance of any grading permit.

Significance After Mitigation

Less than significant with mitigation incorporated.

4.2 Issue 2

Issue: Would the project result in generation of excessive groundborne vibration or ground-borne noise levels?

Construction

Construction of individual projects facilitated by the Housing Element could intermittently generate groundborne vibration at nearby sensitive receivers. Table 13 lists groundborne vibration levels from various types of construction equipment at various distances.

Table 13 Vibration Source Levels for Construction Equipment

Equipment		Approximate Vibration Level (in/sec PPV)			
		25 feet from Source	50 feet from Source	100 feet from Source	200 feet from Source
Caisson Drilling		0.089	0.031	0.011	0.004
Jackhammer		0.035	0.012	0.004	0.002
Large Bulldozer		0.089	0.031	0.011	0.004
Loaded Truck		0.076	0.027	0.010	0.003
Pile Driver (impact)	Upper range	1.519	0.537	0.190	0.067
	Typical	0.644	0.228	0.081	0.028
Pile Driver (sonic)	Upper range	0.734	0.260	0.092	0.032
	Typical	0.170	0.060	0.021	0.008
Small Bulldozer		0.003	0.001	<0.001	<0.001
Vibratory Roller		0.21	0.074	0.026	0.009

Source: FTA 2018.

As shown in Table 13, buildings and structures could experience the strongest vibration during the use of pile-drivers and vibratory rollers. Vibration levels from pile-drivers could approach 1.519 in/sec PPV at a distance of 25 feet from the source and 0.190 in/sec at 100 feet, and vibration levels from vibratory rollers could approach 0.21 in/sec PPV at a distance of 25 feet and 0.026 at 100 feet. The threshold for historic structures is 0.08 in/sec PPV; the threshold is higher for normal buildings at 0.2 in/sec PPV.

Vibration levels from typical equipment such as bulldozers and jackhammers would not exceed thresholds for historic structures and normal buildings at a distance of 50 feet or greater. However, vibration levels from pile driving equipment and vibratory rollers may exceed the City's thresholds. Implementation of 2040 General Plan Policy EC-2.3 would reduce construction vibration in residential areas. Policy EC-2.3 requires the following: Avoid use of impact pile drivers within 125 feet of any buildings, and within 300 feet of historical buildings, or buildings in poor condition. On a project-specific basis, this distance of 300 feet may be reduced where warranted by a technical study by a qualified professional that verifies that there will be virtually no risk of cosmetic damage to sensitive buildings from the new development during demolition and construction. Transient

vibration impacts may exceed a vibration limit of 0.08 in/sec PPV only when and where warranted by a technical study by a qualified professional that verifies that there will be virtually no risk of cosmetic damage to sensitive buildings from the new development during demolition and construction.

Implementation of Policy EC-2.3 would ensure that residential areas are protected from noise and vibration. Therefore, construction groundborne vibration and noise impacts from projects facilitated by the Housing Element would be less than significant.

Operation

Residential land uses facilitated by the Housing Element would not involve substantial vibration sources associated with operation. Therefore, project operational vibration impacts would be less than significant.

4.3 Issue 3

Issue:	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

SJC is a public airport located at the northwestern boundary of the City. Development facilitated by the Housing Element is not expected to directly increase airport activities and airport noise. Existing requirements for airports would reduce the noise impacts of airport activity on residents and workers. Title 21 of the California Code of Regulations establishes noise standards for airports and the responsibilities of the regional Airport Land Use Commissions, which prepare land use compatibility plans with thorough evaluations of airport noise, as described above in Section 2.5, *Regulatory Setting*. Additionally, the Federal Aviation Administrative Regulation Part 150 Airport Noise Compatibility Program is designed to reduce the effect of airport noise on the surrounding communities as airports expand.

Certain opportunity housing sites associated with the Housing Element would be located within the 65 dBA CNEL noise contour for SJC (Santa Clara County Airport Land Use Commission 2011). Opportunity housing sites located further away in the City may be exposed to elevated noise levels from the airport, however they would not be exposed to airport noise levels of 65 dBA CNEL or above. SJC does not provide noise contours for 60 CNEL to 65 CNEL, but it is assumed that the 60 CNEL contour would extend further into the city, covering more areas that contain noise-sensitive receivers. No opportunity housing sites would be located within the noise contours for the Reid-Hillview Airport (Santa Clara County Airport Land Use Commission 2007).

As the City of San José's normally acceptable noise levels are 50 to 60 DNL for residential, hotels, motels, schools, libraries, churches, hospitals, and residential care facilities, this would mean that new noise-sensitive receivers at the opportunity housing sites located near SJC would be exposed to conditionally acceptable noise levels from SJC. In addition, the Comprehensive Land Use Plan for SJC establishes mitigation procedures for housing units in 65 CNEL zones, which opportunity housing sites would be exposed to. However, implementation of Policies EC-1.10, EC-1.11, and EC-1.12 in the 2040 General Plan would reduce the exposure of sensitive receivers to aircraft noise.

Policy EC-1.10 encourages the use of quitter aircraft at SJC. Policy EC-1.11 requires safe and compatible land uses within the SJC noise zone and encourages aircraft operating procedures that minimize noise. Policy EC-1.12 encourages the enforcement of current cruise altitudes that minimize the impact of aircraft noise on land use. In addition, Policy EC-1.1 sets interior and exterior noise standards and requires that new development be located in areas where noise levels are appropriate for the proposed uses. Action EC-1.14 requires acoustical analyses for proposed sensitive land uses in areas with exterior noise levels exceeding the City's noise and land use compatibility standards. Therefore, with compliance with these 2040 General Plan policies, no substantial noise exposure from airport noise would occur to construction workers or residents of the project, and impacts would be less than significant.

5 Cumulative Impacts

Construction Noise

Construction noise generated by the Housing Element, in combination with construction activities for other cumulative projects that may be constructed simultaneously could, without mitigation, substantially increase noise levels in the vicinity of future projects. Mitigation measures have been identified to help reduce noise from construction equipment from Housing Element projects. Therefore, unless construction of cumulative projects, including those proposed under development facilitated by the Housing Element, occur in close proximity to each other and simultaneously, noise from individual construction projects have a small chance of combining to create significant cumulative impacts. Although this scenario is unlikely, and mitigation measures would be implemented to the extent feasible, the potential remains for a cumulatively considerable increase in construction noise from Housing Element projects. Therefore, the cumulative impact related to construction noise would be significant and unavoidable.

Operational Noise

Traffic Noise

As discussed in Issue 1, traffic noise increases from Housing Element development would not contribute to a noise level increase that exceeds impact criteria. Even though traffic would gradually increase over the course of development facilitated by the project, the contribution would not be cumulatively considerable. Therefore, the cumulative impact related to operational traffic noise would be less than significant.

Stationary Noise

Development facilitated by the Housing Element would introduce new stationary noise sources to the ambient noise environment in the vicinity of the plan area, including new mechanical ventilation equipment. These sources may combine with other nearby cumulative projects to result in higher noise levels. However, operational noise from these sources is localized and rapidly attenuates within an urbanized setting due to the effects of intervening structures and topography that block the line of sight and due to other noise sources closer to receivers that obscure project-related noise. Implementation of City municipal code and 2040 General Plan noise standards would ensure that noise from new stationary sources as part of the cumulative projects would be within acceptable levels. Therefore, the cumulative impact related to operational stationary noise would be less than significant.

Vibration

Although there could be other cumulative projects simultaneously under construction near individual projects facilitated by the Housing Element, the potential for construction vibration impacts is within relatively close distances (e.g., within approximately 25 feet for a vibratory roller). Since no two construction projects would both be within 25 feet of a given sensitive structure, cumulative vibration impacts would be less than significant.

Airport Noise

As discussed in Issue 3, housing opportunity sites associated with the Housing Element would be located in the vicinity of SJC and could be exposed to excessive aircraft noise. However, implementation of Policies EC-1.10, EC-1.11, EC-1.12, Policy EC-1.1, and Action EC-1.14 in the 2040 General Plan would reduce the exposure of sensitive receivers to aircraft noise to less-than-significant levels. As such, there would be no cumulative impact related to being located near an airport.

6 References

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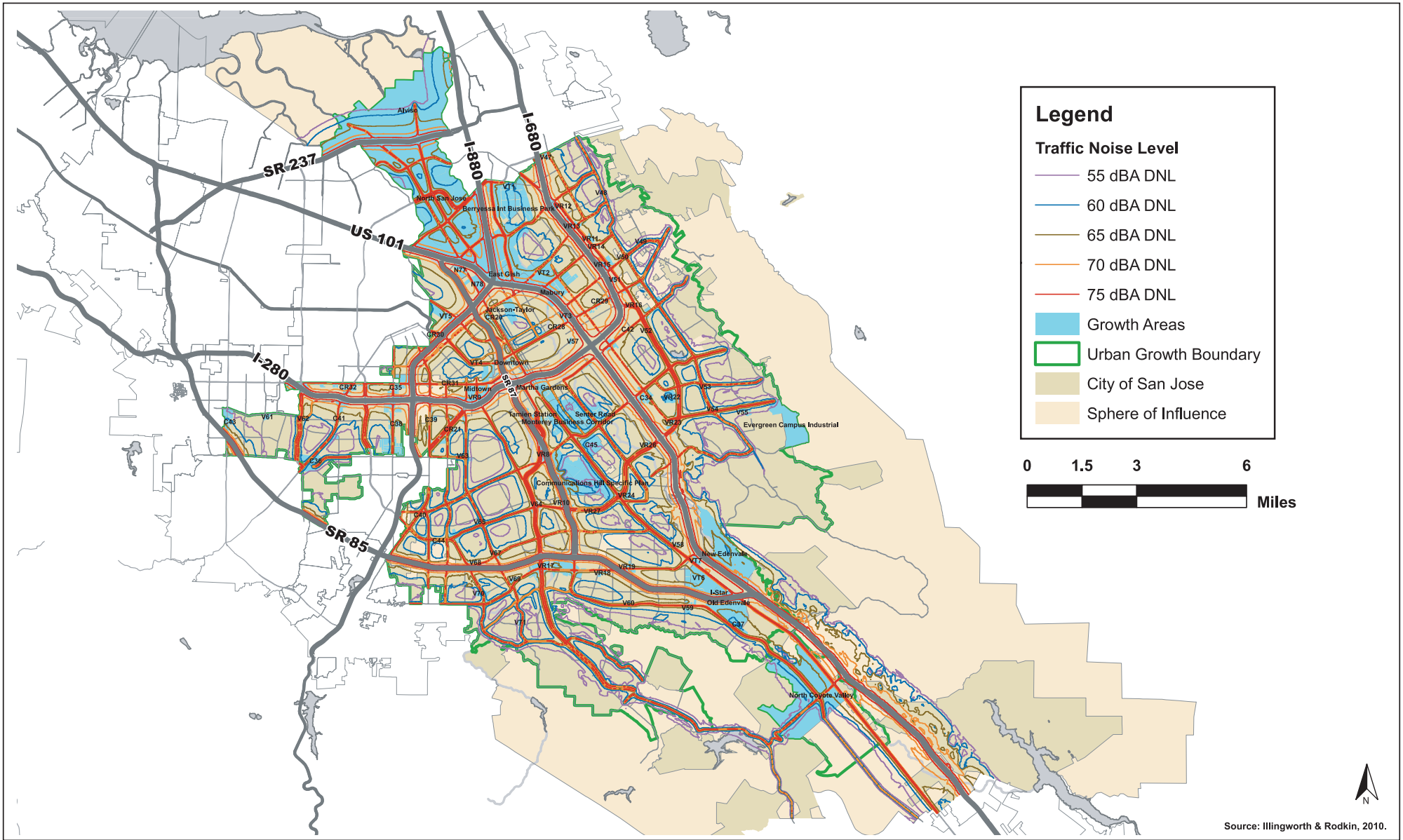
Appendix A

Supporting Noise Information

Appendix A

Supporting Noise Information

Future (2035) Traffic Noise Contours



CITYWIDE 2035 TRAFFIC NOISE CONTOURS

FIGURE 3.3-2

Study Area Traffic Segment Volumes

				Projected (Year 2015)		Current 2040 General Plan			Proposed 2040 General Plan (4-Year Review)	
Roadway Segment	Location		Roadway Type	Number of Lanes	ADT	Number of Lanes	ADT	Increase vs. Projected Year 2015	ADT	Increase vs. Projected Year 2015
1st St	Burton St	Younger Ave	Major Arterial	4	29,500	4	38,200	8,700	39,300	9,800
1st St	Holger Wy	SR 237	Major Arterial	6	37,000	6	59,900	22,900	61,300	24,300
1st St	I-280	Reed St	Minor Arterial	4	25,500	4	41,500	16,000	43,900	18,400
1st St	Trimble Rd	Component Dr	Major Arterial	4	34,500	4	51,400	16,900	51,500	17,000
7th St	I-280	Margaret St	Minor Arterial	2	11,900	2	14,300	2,400	15,200	3,300
10th St	Commercial St	US 101	Minor Arterial	4	21,700	4	38,800	17,100	40,000	18,300
10th/11th St	Julian St	Washington St	Local	4	23,500	4	31,800	8,300	36,300	12,800
11th St	Margaret St	Virginia St	Local	4	38,400	4	46,100	7,700	48,800	10,400
13th St	Madera Ave	Berryessa Rd	Major Arterial	4	29,200	4	42,600	13,400	44,000	14,800
Aborn Rd	Capitol Expwy	Rock Water Ln	Major Arterial	6	48,700	6	57,900	9,200	58,800	10,100
Almaden Expwy	Foxchase Dr	Blossom Hill Rd	Expressway	8	93,000	8	104,400	11,400	99,100	6,100
Almaden Expwy	Lillian Wy	Cloverhill Dr	Expressway	4	42,300	4	47,200	4,900	43,600	1,300
Almaden Expwy	Old Almaden Rd	Lincoln Ave	Expressway	8	55,600	8	85,600	30,000	79,600	24,000
Almaden Rd	Vine St	Almaden Expwy	Major Arterial	4	35,000	4	53,200	18,200	51,900	16,900
Alum Rock Ave	Capitol Ave	Sierra Vista Pl	Minor Arterial	4	24,500	4	31,900	7,400	30,000	5,500
Bailey Ave	McKean Rd	Santa Teresa Blvd	Minor Arterial	4	9,200	4	14,200	5,000	9,700	500
Bailey Ave	Monterey Rd	US 101	Minor Arterial	6	24,800	6	56,100	31,300	39,100	14,300
Bascom Ave	Downing Ave	Leon Dr	Major Arterial	6	30,000	6	40,300	10,300	42,200	12,200
Bascom Ave	Dry Creek Rd	Surrey Pl	Major Arterial	6	21,400	6	39,200	17,800	39,500	18,100
Bascom Ave	E Mozart Ave	Loretta Ln	Major Arterial	6	31,300	6	48,400	17,100	48,400	17,100
Bascom Ave	Nedbush Ter	Cherrystone Dr	Minor Arterial	4	35,000	4	52,300	17,300	52,900	17,900
Berryessa Rd	Capitol Ave	I-880	Major Arterial	4	31,300	4	45,400	14,100	45,000	13,700
Berryessa Rd	Cornish Ln	Commercial St	Major Arterial	6	35,900	6	67,600	31,700	68,100	32,200
Blossom Hill Rd	Eagles Ln	Judith St	Major Arterial	6	24,600	6	48,900	24,300	45,400	20,800
Blossom Hill Rd	Sanchez Dr	Winfield Blvd	Major Arterial	6	23,600	6	38,000	14,400	35,000	11,400
Blossom Hill Rd	union Ave	Greenridge Ter	Minor Arterial	2	16,700	2	21,700	5,000	20,800	4,100
Branham Ln	Glenmont Dr	Pearl Ave	Major Arterial	4	23,600	4	28,200	4,600	27,600	4,000
Brokaw Rd	I-880	Ridder Park	Major Arterial	6	54,400	6	67,300	12,900	65,600	11,200
Camden Ave	Coleman Rd	Hicks Rd	Major Arterial	4	22,200	4	30,100	7,900	27,500	5,300
Camden Ave	Curtner Ave	Erin Wy	Major Arterial	6	47,600	6	62,600	15,000	62,400	14,800
Camden Ave	Leigh Ave	Hillsdale Ave	Major Arterial	6	53,900	4	62,100	8,200	59,800	5,900
Capitol Ave	Gay Ave	Madden Ave	Major Arterial	4	21,200	4	37,300	16,100	35,600	14,400
Capitol Ave	Montague Expwy	Cropley Ave	Major Arterial	5	28,200	5	46,900	18,700	46,100	17,900
Capitol Ave	Sierra Rd	Old Post Wy	Major Arterial	4	23,000	4	37,000	14,000	34,000	11,000
Capitol Expwy	Old Almaden Rd	Pearl Ave	Expressway	6	40,400	6	54,300	13,900	52,500	12,100
Capitol Expwy	Cunningham Ave	Tully Rd	Expressway	6	66,300	6	79,100	12,800	77,800	11,500

				Projected (Year 2015)		Current 2040 General Plan			Proposed 2040 General Plan (4-Year Review)	
Roadway Segment	Location		Roadway Type	Number of Lanes	ADT	Number of Lanes	ADT	Increase vs. Projected Year 2015	ADT	Increase vs. Projected Year 2015
Capitol Expwy	I-680	Camas Ave	Expressway	6	76,300	6	87,400	11,100	86,800	10,500
Capitol Expwy	Seven Trees Blvd	Monterey Rd	Expressway	6	62,800	6	81,500	18,700	80,200	17,400
Capitol Expwy	Silver Creek Rd	Aborn Rd	Expressway	8	76,400	8	99,900	23,500	99,900	23,500
Coleman Ave	Brokaw Rd	Airport Blvd	Major Arterial	5	38,700	5	65,500	26,800	64,500	25,800
Curtner Ave	Cherry Ave	Nola Dr	Minor Arterial	4	27,700	4	38,600	10,900	40,600	12,900
East Brokaw Rd	Zanker Rd	Rogers Ave	Major Arterial	6	40,100	6	56,100	16,000	55,000	14,900
Guadalupe Pkwy	US 101	Orchard Pkwy	Minor Arterial	4	36,700	4	56,700	20,000	57,200	20,500
Hale Ave	Kalana Ave	Palm Ave	Collector	2	9,200	2	16,800	7,600	14,400	5,200
Hamilton Ave	Hwy 17	Bascom Ave	Major Arterial	6	45,700	6	62,200	16,500	63,400	17,700
Hedding St	Ruff Dr	SR 87	Minor Arterial	4	20,000	2	23,700	3,700	25,500	5,500
Hostetter Rd	Automation Pkwy	Rue Avati	Major Arterial	6	38,100	6	54,100	16,000	52,100	14,000
Julian St	21st St	24th St	Minor Arterial	2	10,600	2	15,100	4,500	16,200	5,600
King Rd	Havana Dr	Cunningham Ave	Minor Arterial	3	24,900	4	34,600	9,700	33,800	8,900
King Rd	St James St	Wilshire Blvd	Minor Arterial	3	11,600	4	27,500	15,900	26,000	14,400
Lawrence Expwy	Doyle Rd	Prospect Rd	Expressway	6	40,800	6	46,500	5,700	47,100	6,300
Leigh Ave	Dry Creek Rd	Bent Dr	Minor Arterial	4	27,400	2	21,500	-5,900	21,300	-6,100
Lincoln Ave	Minnesota Ave	Brace Ave	Minor Arterial	2	13,400	2	18,400	5,000	18,700	5,300
Mabury Rd	Capitol Ave	Cedarville Ln	Minor Arterial	2	10,300	4	27,100	16,800	25,200	14,900
Mabury Rd	Educational Park	Jackson Ave	Minor Arterial	4	9,400	4	23,300	13,900	23,400	14,000
Mabury Rd	Lenfest Ave	Taylor St	Minor Arterial	4	10,700	4	41,300	30,600	43,000	32,300
Market St	San Pedro St	SR 87	Minor Arterial	4	24,300	4	42,100	17,800	52,100	27,800
McKean Rd	Harry Rd	Hunters Hill Rd	Minor Arterial	2	8,000	2	23,300	15,300	15,900	7,900
McKee Rd	Capitol Ave	I-680	Major Arterial	6	46,200	6	52,300	6,100	51,200	5,000
Meridian Ave	Dry Creek Rd	Campbell Ave	Minor Arterial	4	23,800	4	35,200	11,400	33,900	10,100
Meridian Ave	Southwest Expwy	Fruitdale Ave	Minor Arterial	4	27,300	4	34,200	6,900	35,200	7,900
Montague Expwy	Guadalupe River	Orchard Dr	Expressway	8	90,000	8	129,700	39,700	130,900	40,900
Montague Expwy	O'Toole Ave	I-880	Expressway	8	88,800	8	122,600	33,800	121,300	32,500
Monterey Rd	Bellevue Ave	San Jose Ave	Major Arterial	6	28,900	6	46,200	17,300	44,300	15,400
Monterey Rd	Bouganvilla Dr	Branham Ln	Major Arterial	6	33,300	4	41,800	8,500	37,700	4,400
Monterey Rd	Kalana Ave	Palm Ave	Minor Arterial	4	20,100	4	33,600	13,500	31,400	11,300
Monterey Rd	Metcalf Rd	Blanchard Rd	Minor Arterial	4	19,500	4	46,200	26,700	29,700	10,200
Monterey Rd	SR 85	Bernal Rd	Major Arterial	4	19,300	4	40,200	20,900	27,300	8,000
Moorpark Ave	Borina Dr	Castlewood Dr	Minor Arterial	2	9,300	2	11,300	2,000	10,700	1,400
Morrill Ave	Hostetter Rd	Cataldi Wy	Collector	2	19,000	4	35,700	16,700	35,400	16,400
Oakland Rd	Montague Expwy	Atteberry Ln	Major Arterial	6	12,800	6	43,000	30,200	43,000	30,200
Piedmont Rd	Penetencia Creek Rd	Noble Ave	Minor Arterial	2	13,300	2	22,300	9,000	21,400	8,100
Quimby Rd	Capitol Expwy	Keppler Dr	Minor Arterial	4	38,500	4	43,600	5,100	43,500	5,000

				Projected (Year 2015)		Current 2040 General Plan			Proposed 2040 General Plan (4-Year Review)	
Roadway Segment	Location		Roadway Type	Number of Lanes	ADT	Number of Lanes	ADT	Increase vs. Projected Year 2015	ADT	Increase vs. Projected Year 2015
San Carlos St	SR 87	Almaden Rd	Minor Arterial	4	10,100	4	29,800	19,700	36,600	26,500
San Felipe Rd	Heartland Wy	Metcalf Rd	Collector	2	1000	2	1,600	600	1,500	500
San Felipe Rd	Yurba Buena Rd	Park Estates Wy	Minor Arterial	4	20,900	4	24,300	3,400	25,300	4,400
San Tomas Expwy	Williams Rd	Payne Ave	Expressway	6	45,600	6	70,300	24,700	71,400	25,800
Santa Clara St	19th St	17th St	Minor Arterial	4	29,900	4	41,300	11,400	24,400	-5,500
Santa Clara St	Almaden Rd	SR 87	Minor Arterial	4	27,100	4	43,400	16,300	22,400	-4,700
Santa Teresa Blvd	Bayliss Dr	Laguna Seca Creek	Major Arterial	4	9,900	4	48,100	38,200	26,900	17,000
Santa Teresa Blvd	Chesbro	1ndian Ave	Major Arterial	6	24,300	6	48,200	23,900	41,600	17,300
Santa Teresa Blvd	Miyuki Dr	San 1gnacio Ave	Major Arterial	6	16,000	6	49,100	33,100	34,800	18,800
Santa Teresa Blvd	SR 85	Thornwood Dr	Major Arterial	6	48,300	6	64,200	15,900	57,200	8,900
Saratoga Ave	Los Felice Dr	Country Ln	Major Arterial	4	22,700	4	32,500	9,800	33,000	10,300
Saratoga Ave	Moorpark Ave	I-280	Major Arterial	6	57,000	6	68,100	11,100	72,200	15,200
Senter Rd	Dadis Wy	Lewis Rd	Major Arterial	6	23,500	6	35,200	11,700	34,300	10,800
Silver Creek Valley Rd	US 101	Monterey Rd	Major Arterial	6	53,400	6	74,100	20,700	74,000	20,600
Southwest Expwy	Leigh Ave	La Barbera Dr	Major Arterial	4	30,500	4	41,800	11,300	42,900	12,400
Stevens Creek Blvd	I-880	Wainright Ave	Major Arterial	5	14,800	6	44,400	29,600	48,900	34,100
Story Rd	12th St	Senter Rd	Major Arterial	6	39,000	6	59,400	20,400	58,100	19,100
Story Rd	Capitol Expwy	Sollmar Dr	Minor Arterial	6	39,700	6	46,000	6,300	45,700	6,000
Story Rd	King Rd	Bal Harbor Wy	Major Arterial	6	22,100	6	31,500	9,400	31,500	9,400
Story Rd	US 101	Knox Ave	Major Arterial	6	37,900	6	53,000	15,100	54,400	16,500
Tasman Dr	Guadalupe River	Renaissance Dr	Major Arterial	4	28,400	4	49,800	21,400	50,600	22,200
Tasman Dr	McCarthy Blvd	Cisco Wy	Major Arterial	6	37,800	6	74,400	36,600	75,000	37,200
The Alameda	I-880	Alameda Wy	Minor Arterial	4	35,700	4	60,900	25,200	60,800	25,100
The Alameda	Martin Ave	Julian St	Minor Arterial	4	26,200	4	43,800	17,600	49,800	23,600
Trimble Rd	Junction Ave	Montague Expwy	Major Arterial	6	37,600	6	61,100	23,500	61,000	23,400
Trimble Rd	Orchard Pkwy	De La Cruz Blvd	Major Arterial	6	37,500	6	68,700	31,200	69,400	31,900
Tully Rd	Brahms Ave	Quimby Rd	Major Arterial	6	32,500	6	37,100	4,600	37,900	5,400
Tully Rd	Capitol Expwy	Glen Hanleigh Dr	Major Arterial	6	31,900	6	40,400	8,500	39,300	7,400
Tully Rd	Galveston Ave	La Rasione Ave	Major Arterial	6	39,100	6	54,100	15,000	54,200	15,100
Union Ave	SR 85	Logic Dr	Minor Arterial	4	21,300	4	26,700	5,400	26,600	5,300
White Rd	Mt McKinley Dr	Mt Vista Dr	Minor Arterial	4	26,500	4	35,400	8,900	33,900	7,400
White Rd	Stevens Ln	Westbranch Dr	Major Arterial	6	26,800	6	42,000	15,200	40,700	13,900
Winchester Blvd	Fireside Dr	Greentree Wy	Major Arterial	5	33,600	4	38,800	5,200	39,200	5,600
Winchester Blvd	Tisch Way	I-280	Major Arterial	6	43,100	6	57,900	14,800	59,700	16,600
Verba Buena Rd	Baronet Ct	Chisin St	Minor Arterial	4	28,700	4	37,200	8,500	37,700	9,000
Zanker Rd	SR 237	Holger Wy	Major Arterial	6	36,700	6	58,200	21,500	58,900	22,200