

## APPENDIX M

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### ACOUSTICAL ASSESSMENT

Acoustical Assessment  
Good Samaritan Hospital Project  
City of San José, California

Prepared by:



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**Appendix**

Appendix A: Noise Data



**LIST OF ABBREVIATED TERMS**

ADA	Americans with Disabilities Act
APN	Assessor's Parcel Number
ADT	average daily traffic
dBA	A-weighted sound level
CalEEMod	California Emissions Estimator Model
CEQA	California Environmental Quality Act
CG(PD)	Commercial General Planned Development
CNEL	community equivalent noise level
DNL	Day/Night Average Sound Level
$L_{dn}$	day-night noise level
dB	decibel
$L_{eq}$	equivalent noise level
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
HVAC	Heating, ventilation, and air conditioning
Hz	hertz
in/sec	inches per second
LT	Long-term
$L_{max}$	maximum noise level
$\mu Pa$	micropascals
$L_{min}$	minimum noise level
MM	Mitigation Measure
PPV	peak particle velocity
A(PD)	Planned Development (Agriculture Base District)
RCNM	Roadway Construction Noise Model
RMS	root mean square
SB	Senate Bill
ST	Short-term
Sf	square feet
SPC	Structural Performance Category
VdB	vibration velocity level

# 1 INTRODUCTION

This report documents the results of an Acoustical Assessment completed for the Good Samaritan Hospital Project. The purpose of this Acoustical Assessment is to evaluate the Project's potential construction and operational noise and vibration levels associated with the Project and determine the level of impact the Project would have on the environment.

## 1.1 PROJECT LOCATION

The approximately 20-acre Project site is located at 2425 Samaritan Drive and 2333 Samaritan Place (Assessor's Parcel Numbers [APNs]: 421-36-009 and 421-36-011). Regionally, Good Samaritan Hospital is in the southwestern region of San José within an urban area that contains a mix of medical offices and clinics as well as single and multi-family residential developments. The northern boundary of the Project site abuts the eastbound on-ramp to SR-65. Along the eastern boundary of the Project site is the Cambrian Center, a multi-family residential complex, and single-family residences. To the south of the Project site are various medical office buildings. Along the western boundary of the Project site is the Samaritan Medical Center, a medical office complex with surface parking [Figure 1: Regional Vicinity](#) and [Figure 2: Site Vicinity](#), depict the Project site in a regional and local context.

## 1.2 PROJECT DESCRIPTION

Located in an urban area with a mix of commercial uses, single-family, and multi-family residential developments, the Project site is currently the Good Samaritan Hospital campus. The campus contains a day care center, the hospital building (Building A and Building B), a helipad in the northwest corner of the site, landscaping, and surface parking. The existing hospital building is divided into two different wings. Building A is the main building with emergency operations totaling approximately 359,000 square feet (sf), and Building B operates as a women's and children's services wing totaling approximately 85,000 sf. With the day care center totaling approximately 6,700 sf, the existing hospital campus is approximately 450,700 sf. [Figure 3: Existing Conditions](#) depict the Project site along with the current existing uses.

The proposed Project's existing land use designation is Neighborhood/Community Commercial (NCC), and the existing zoning designation is Planned Development (Agriculture Base District) (A(PD)). Project implementation would require a new Planned Development District to authorize the Project's new uses and, therefore a zone change would be required. The Project proposes a rezone (File No. PDC22-132) from the existing (A(PD)) Planned Development Zoning District to the Commercial General Planned Development (CG(PD)) Zoning District. The new (CG(PD)) Planned Development Zoning District would authorize the new hospital wing components and additional uses (i.e., cafeterias and retail shops), as well as updated standards to address the modernization of the hospital's healthcare system and operations. In addition, a new planned development permit(s) would be required to implement the new PD Zoning.

Although the Project would be constructed in phases, the hospital would plan and stage operations throughout the expansion in order to allow for continuous uninterrupted operation of the hospital. Construction for all phases would follow a conventional construction sequence of demolition, site preparation, grading/earthwork, paving, building construction, and architectural coating. See [Figure 4: Project Site Plan](#) for more details.

## Phase 1

Phase 1 would include demolition of 20,946 square feet in Building A and demolition of the 6,700 sf daycare center to construct a new 253,000-square-foot, five-story parking garage (Garage East), a 23,750-square-foot detached central utility plant and underground water and sewer tanks, and an approximately 548,444-square-foot, eight-story hospital building (Building C).

Garage East would be in the northeastern region of the Project site and would provide 653 parking spaces. Additionally, a new loading dock and accompanying dock canopy is proposed at grade-level on the west side of Building C, north of the existing four-story Women's and Children Center hospital wing (existing Building B). The loading area would be accessed from an internal drive aisle from Samaritan Drive, and the northern perimeter drive aisle.

In Phase 1, a Health Care Access and Information (HCAI) compliant two-story approximately 23,750 sf Central Utility Plant, Mechanical Yard, and Oxygen (O2) Yard is proposed to the east of proposed Building C and west of Garage East to provide power and utility infrastructure to support the hospital operations.

Phase 1 would result in approximately 40,000 cubic yards (cy) of soil export from the Project site and approximately 10,000 cy of soil import. Construction Phase 1 would occur over approximately 5.8 years (i.e., 69 months), anticipated to begin in March 2024. See [Figure 5: Proposed Project Phase 1 Conceptual Site Plan](#) for more details.

## Phase 2

In Phase 2, the existing non-seismically-compliant hospital building (Building A) would be demolished, totaling approximately 338,054 sf of demolition. The basement of the demolished hospital would be infilled with approximately 16 feet of fill and then approximately 421 surface parking stalls would be constructed.

Phase 2 would result in approximately 1,000 cy of soil export and 70,000 cy of soil import. Phase 2 is anticipated to begin in 2029 and occur over approximately two years. See [Figure 6: Proposed Project Phase 2 Conceptual Site Plan](#) for more details.

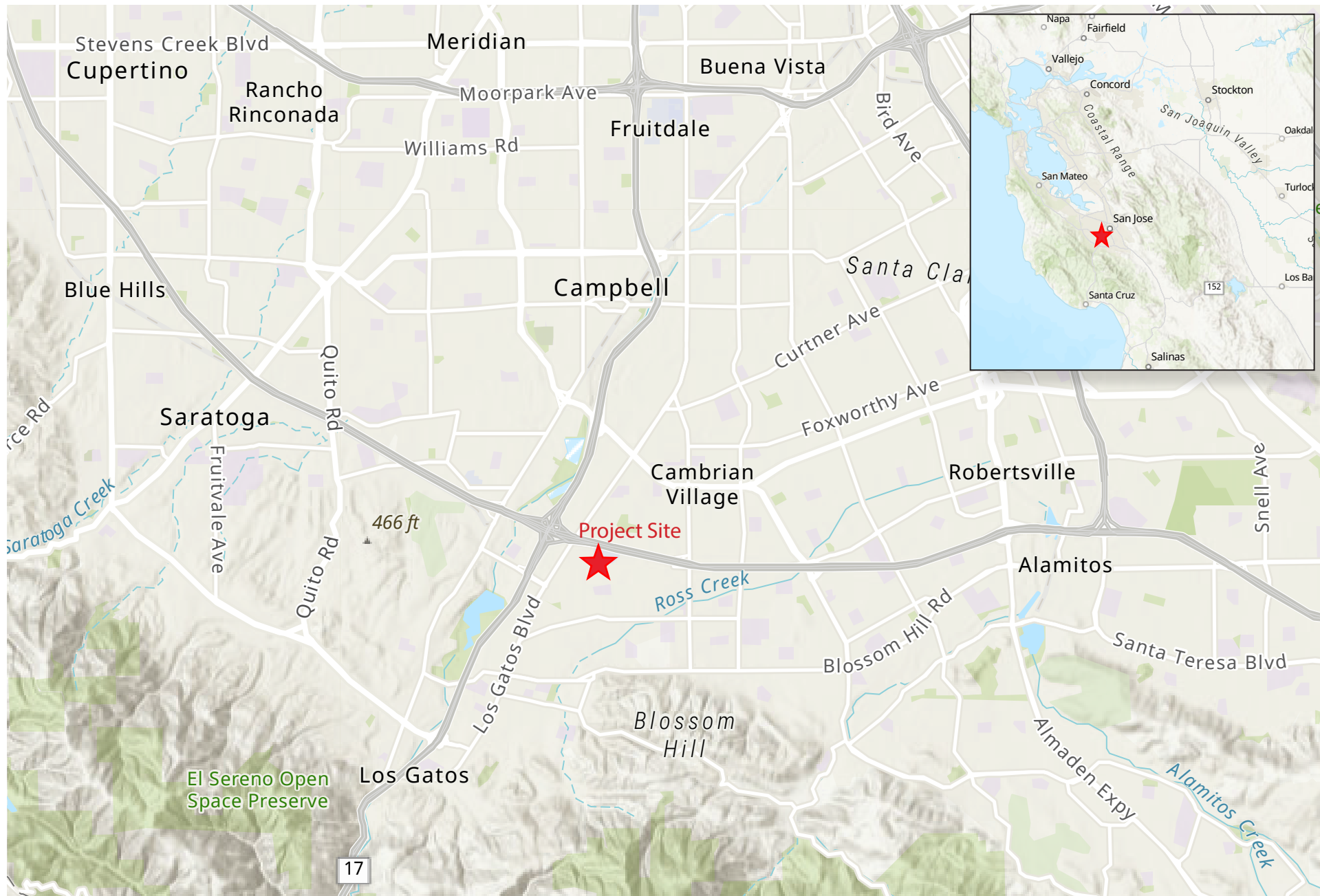
## Phase 3

Phase 3 would construct an approximately 202,000 sf hospital wing (Building D), an approximately 200,000 sf medical office building (Building E), and an approximately 425,208 sf six-story garage structure (Garage West) with up to 1,154 parking stalls.

Building E is proposed to be constructed at the southern edge of the Project site, near the intersection of Samaritan Drive at Samaritan Place and would be eight stories tall and have approximately 25,000 sf of office space per floor, for a total of approximately 200,000 sf.

Additional patient, staff, and visitor parking would be provided in a new free-standing parking structure (Garage West) located on the western edge of the site. Garage West would be fully constructed in Phase 3 and would have approximately 1,154 parking spaces with five levels of parking, including basement. At Phase 3 completion, the Good Samaritan Hospital would have up to 2,179 parking spaces. See [Figure 7: Proposed Buildout Conceptual Site Plan](#) for more details.

Phase 3 would result in approximately 21,000 CY of soil export and 5,000 CY of soil import. Phase 3 would be constructed over approximately 2.8 years (i.e., 34 months) starting in 2032. The schedule for construction in all phases would typically occur six days a week (Monday through Saturday) from 7:00 a.m. to 7:00 p.m.



Source: USGS, 2023

## Figure 1: Regional Vicinity

Good Samaritan Hospital Master Plan  
Technical Report



Not to scale

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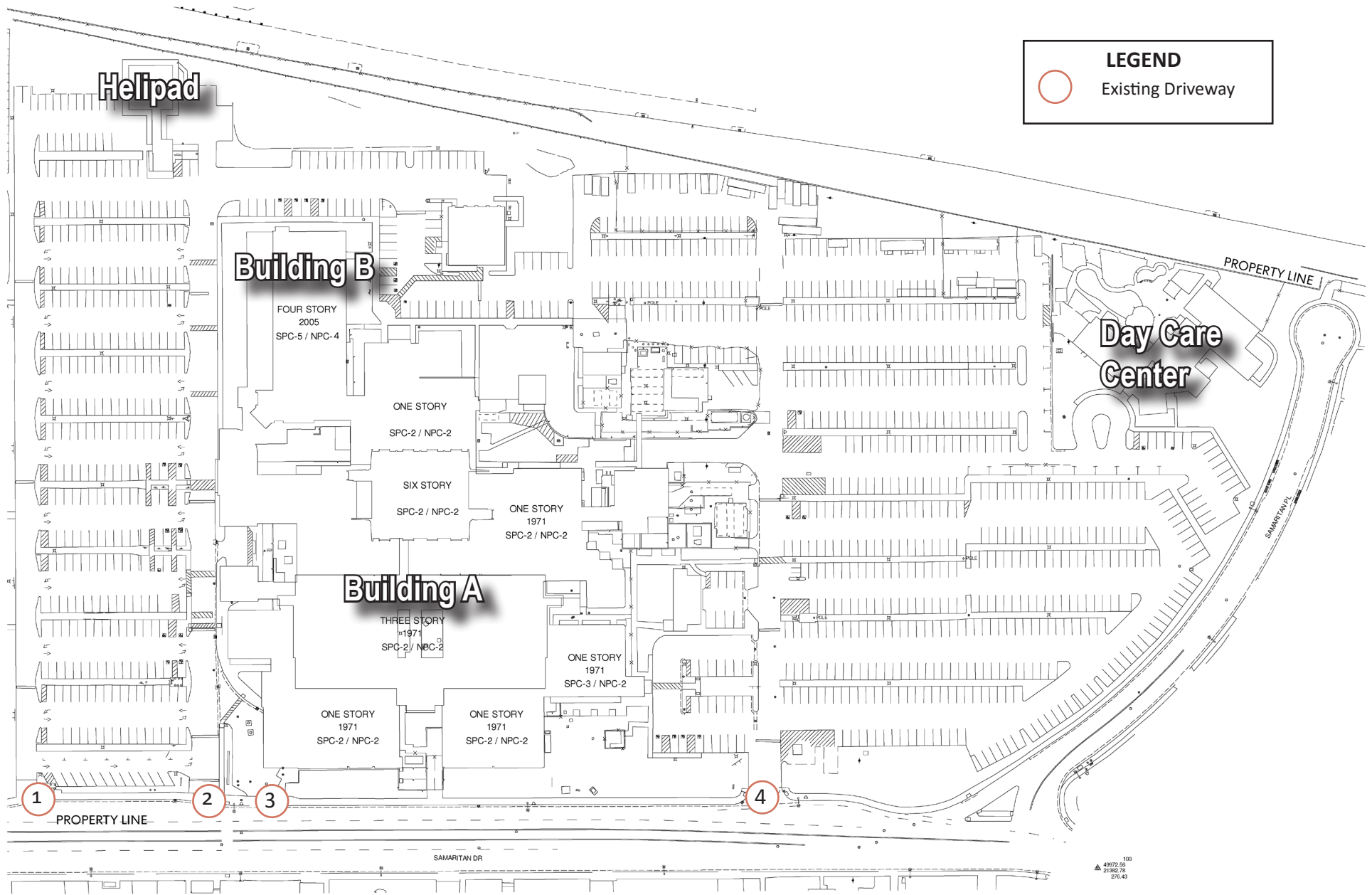
Source: Nearmap, 2023

**Figure 2: Site Vicinity**  
Good Samaritan Hospital Master Plan  
Technical Report



Not to scale





Source: Kimley-Horn, 2023

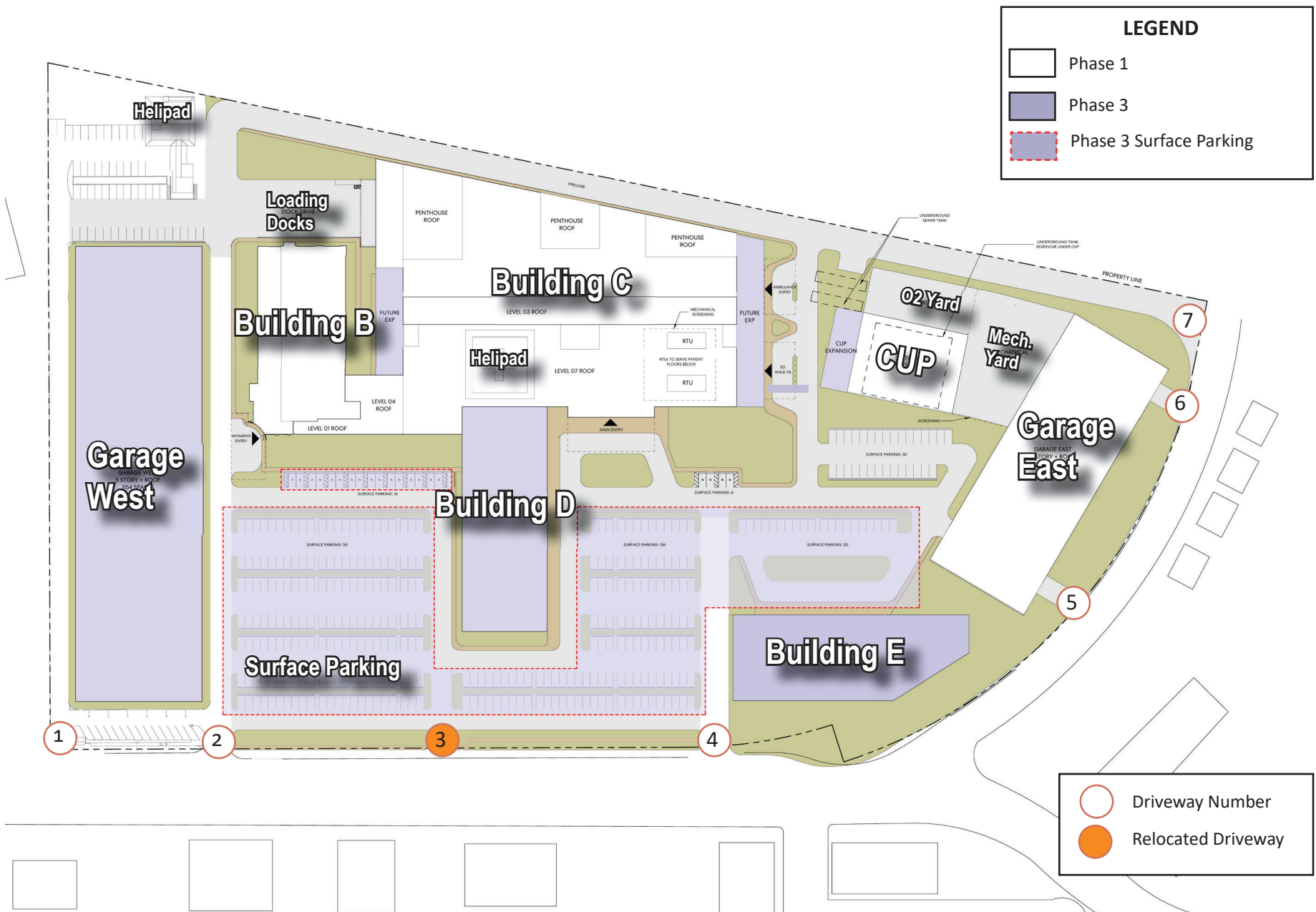
### Figure 3: Existing Conditions

Good Samaritan Hospital Master Plan  
Technical Report



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Source: Perkins and Will, 2023

**Figure 4: Project Site Plan**

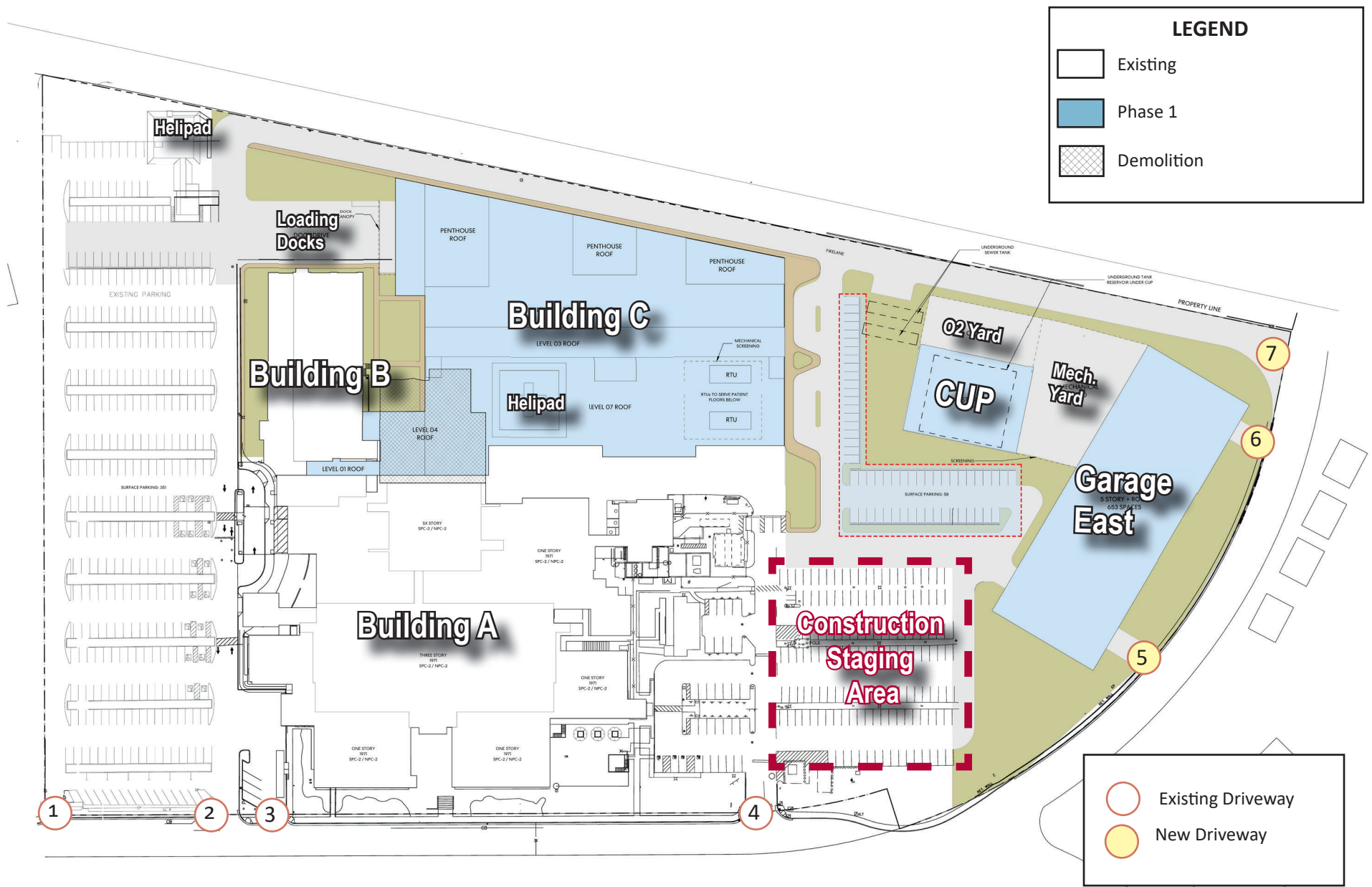
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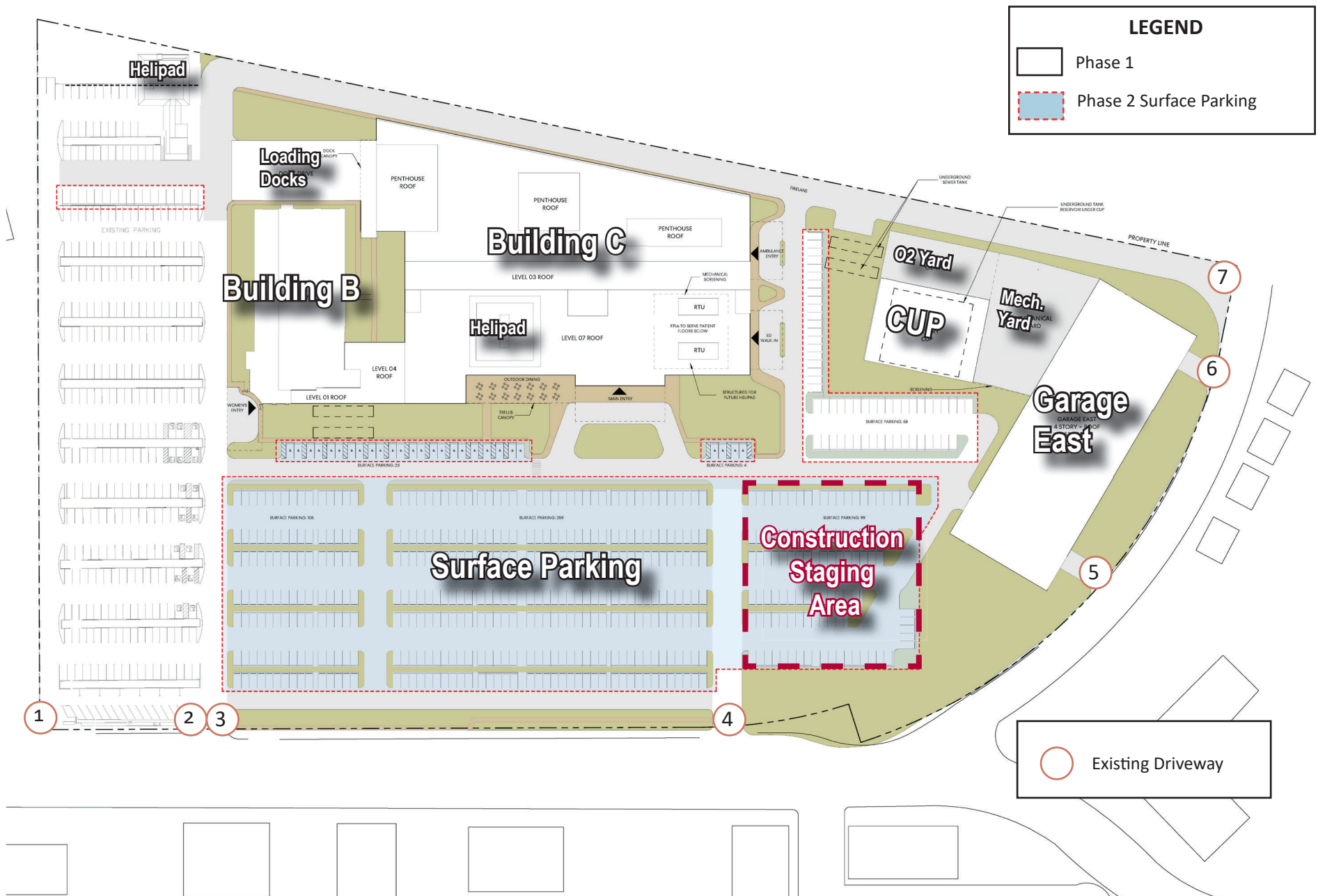
**Figure 5: Proposed Project Phase 1 Conceptual Site Plan**

Good Samaritan Hospital Master Plan  
Technical Report



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Source: Perkins and Will, 2023

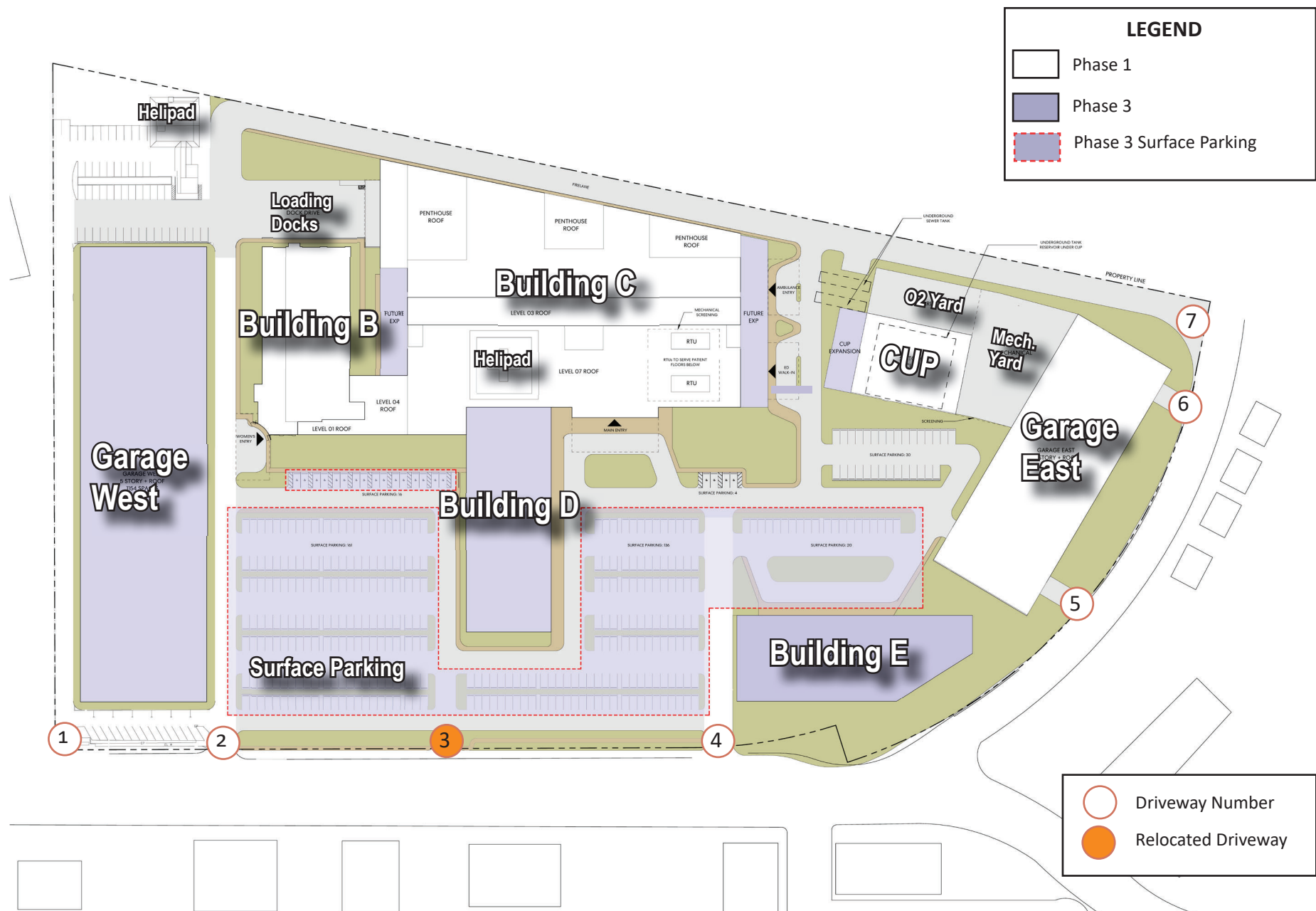
**Figure 6: Proposed Project Phase 2 Conceptual Site Plan**

Good Samaritan Hospital Master Plan  
Technical Report



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Source: Perkins and Will, 2023

**Figure 7: Proposed Buildout Conceptual Site Plan**

Good Samaritan Hospital Master Plan  
Technical Report



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## 2 ACOUSTIC FUNDAMENTALS

### 2.1 SOUND AND ENVIRONMENTAL NOISE

Acoustics is the science of sound. Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a medium (e.g. air) to human (or animal) ear. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second, or hertz (Hz).

Noise is defined as loud, unexpected, or annoying sound. The fundamental acoustics model consists of a noise source, receptor, and the propagation path between the two. The loudness of the noise source, obstructions, or atmospheric factors affecting the propagation path, determine the perceived sound level and noise characteristics at the receptor. Acoustics deal primarily with the propagation and control of sound. A typical noise environment consists of ambient noise that is the sum of many distant and indistinguishable noise sources. The sound from individual local sources is superimposed on this background noise. These sources can vary from an occasional aircraft or train passing by to continuous noise from traffic on a major highway. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a large range of numbers. To avoid this, the decibel (dB) scale was devised. The dB scale uses the hearing threshold of 20 micropascals ( $\mu\text{Pa}$ ) as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The dB scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels correspond closely to human perception of relative loudness. [Table 1: Typical Noise Levels](#) provides typical noise levels.

**Table 1: Typical Noise Levels**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	– 110 –	Rock Band
Jet fly-over at 1,000 feet	– 100 –	
Gas lawnmower at 3 feet	– 90 –	
Diesel truck at 50 feet at 50 miles per hour	– 80 –	Food blender at 3 feet Garbage disposal at 3 feet
Noisy urban area, daytime	– 70 –	Vacuum cleaner at 10 feet Normal Speech at 3 feet
Gas lawnmower, 100 feet	– 60 –	
Commercial area	– 50 –	Large business office Dishwasher in next room
Heavy traffic at 300 feet	– 40 –	Theater, large conference room (background)
Quiet urban daytime	– 30 –	Library
Quiet urban nighttime	– 20 –	Bedroom at night, concert hall (background)
Quiet suburban nighttime	– 10 –	Broadcast/recording studio
Quiet rural nighttime	– 0 –	Lowest threshold of human hearing
Lowest threshold of human hearing	– 0 –	

Source: California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013.

## Noise Descriptors

The dB scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. Most commonly, environmental sounds are described in terms of  $L_{eq}$  that has the same acoustical energy as the summation of all the time-varying events. While the equivalent noise level ( $L_{eq}$ ) represents the continuous sound pressure level over a given time period, the day-night noise level ( $L_{dn}$ ) and Community Equivalent Noise Level (CNEL) are measures of energy average during a 24-hour period. Each is applicable to this analysis and defined Table 2: Definitions of Acoustical Terms.

**Table 2: Definitions of Acoustical Terms**

Term	Definitions
Decibel (dB)	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in $\mu\text{Pa}$ (or 20 microneutons per square meter), where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in dB as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g. 20 $\mu\text{Pa}$ ). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and ultrasonic sounds are above 20,000 Hz.



Term	Definitions
A-Weighted Sound Level (dBA)	The sound pressure level in dB as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level ( $L_{eq}$ )	The average acoustic energy content of noise for a stated period of time. Thus, the $L_{eq}$ of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
Maximum Noise Level ( $L_{max}$ ) Minimum Noise Level ( $L_{min}$ )	The maximum and minimum dBA during the measurement period.
Exceeded Noise Levels ( $L_1$ , $L_{10}$ , $L_{50}$ , $L_{90}$ )	The dBA values that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day-Night Noise Level ( $L_{dn}$ )	A 24-hour average $L_{eq}$ with a 10 dBA weighting added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity at nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour $L_{eq}$ would result in a measurement of 66.4 dBA $L_{dn}$ .
Community Noise Equivalent Level (CNEL)	A 24-hour average $L_{eq}$ with a 5 dBA weighting during the hours of 7:00 a.m. to 10:00 a.m. and a 10 dBA weighting added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24-hour $L_{eq}$ would result in a measurement of 66.7 dBA CNEL.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends on its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound ( $L_{eq}$ ) or the statistical behavior of the variations ( $L_{xx}$ ) must be used. The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends on various factors, such as the distance between the receptor and the noise source, the character of the ground surface (e.g., hard or soft), and the presence or absence of structures (e.g., walls or buildings) or topography and how well model inputs reflect these conditions present in the local setting.

### A-Weighted Decibels

The perceived loudness of sounds is dependent on many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by dBA values. There is a strong correlation between dBA and the way the human ear perceives sound. For this reason, the dBA has become the standard tool of environmental noise assessment. All noise levels reported in this document are in terms of dBA, but are expressed as dB, unless otherwise noted.

### Addition of Decibels

The dB scale is logarithmic, not linear, and therefore sound levels cannot be added or subtracted through ordinary arithmetic. Two sound levels 10 dB apart differ in acoustic energy by a factor of 10.<sup>1</sup> When the standard logarithmic dB is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness.<sup>2</sup> For example, a 70-dBA sound is half as loud as an 80-dBA sound and twice as loud as a 60-dBA sound. When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dBA higher than one source under the same conditions. Under the dB scale, three sources of equal loudness together would produce an increase of 5 dBA.

### Sound Propagation and Attenuation

Sound spreads (propagates uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or point source.<sup>3</sup> Sound from a line source, such as a highway, propagates outward in a cylindrical pattern. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics.<sup>4</sup> No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed when soft ground conditions exist between the source and receptor locations.<sup>5</sup> For line sources, an overall attenuation rate of 3 dB per doubling of distance is assumed in this report.

Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the noise receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm can reduce noise levels by 5 to 15 dBA.<sup>6</sup> The way older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units is generally 30 dBA or more.

### Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60 to 70 dBA range, and high above 70 dBA.<sup>7</sup> Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-

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<sup>1</sup> California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013.

<sup>2</sup> California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013.

<sup>3</sup> Federal Transit Administration; *Transit Noise and Vibration Assessment Manual*, 2018.

<sup>4</sup> Federal Transit Administration; *Transit Noise and Vibration Assessment Manual*, 2018.

<sup>5</sup> Federal Highway Administration, *FHWA Traffic Noise Model User's Guide*, January 1998.

<sup>6</sup> Federal Highway Administration, *Highway Traffic and Construction Noise - Problem and Response*, April 2006.

<sup>7</sup> Compiled from James P. Cowan, *Handbook of Environmental Acoustics*, 1994, and Cyril M. Harris, *Handbook of Noise Control*, 1979.

commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most would accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in dBA, the following relationships should be noted:<sup>8</sup>

- Except in carefully controlled laboratory experiments, a 1-dBA change cannot be perceived by humans.
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference.
- A minimum 5-dBA change is required before any noticeable change in community response would be expected. A 5-dBA increase is typically considered substantial.
- A 10-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

### Effects of Noise on People

**Hearing Loss.** While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise. The Occupational Safety and Health Administration has a noise exposure standard that is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over 8 hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.<sup>9</sup>

**Annoyance.** Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The  $L_{dn}$  as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources. A noise level of about 65 dBA  $L_{dn}$  is the threshold at which a 12 percent of people begin to report annoyance which is considered significant.<sup>10</sup>

## 2.2 GROUNDBORNE VIBRATION

Sources of groundborne vibrations include natural phenomena (earthquakes, volcanic eruptions, sea waves, landslides, etc.) or man-made causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous (e.g. factory machinery) or transient (e.g. explosions). Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave and is expressed in terms of inches-per-second (in/sec). The RMS velocity is defined as the average of the squared amplitude of the signal and is

<sup>8</sup> Compiled from California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, and Federal Highway Administration, *Noise Fundamentals*, 2017.

<sup>9</sup> U.S. Department of Labor, Occupational Safety and Health Standards, *29 CFR 1910* (Occupational Noise Exposure).

<sup>10</sup> Federal Interagency Committee on Noise, *Federal Agency Review of Selected Airport Noise Analysis Issues*, August 1992.



expressed in terms of velocity decibels (VdB). The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

**Table 3: Human Reaction and Damage to Buildings**, displays the reactions of people and the effects on buildings produced by continuous vibration levels. The annoyance levels shown in the table should be interpreted with care since vibration may be found to be annoying at much lower levels than those listed, depending on the level of activity or the individual's sensitivity. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

**Table 3: Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibration**

Maximum PPV (in/sec)	Vibration Annoyance Potential Criteria	Vibration Damage Potential Threshold Criteria	FTA Vibration Damage Criteria
0.008	-	Extremely fragile historic buildings, ruins, ancient monuments	-
0.01	Barely Perceptible	-	-
0.04	Distinctly Perceptible	-	-
0.1	Strongly Perceptible	Fragile buildings	-
0.12	-	-	Buildings extremely susceptible to vibration damage
0.2	-	-	Non-engineered timber and masonry buildings
0.25	-	Historic and some old buildings	-
0.3	-	Older residential structures	Engineered concrete and masonry (no plaster)
0.4	Severe	-	-
0.5	-	New residential structures, Modern industrial/commercial buildings	Reinforced-concrete, steel, or timber (no plaster)
PPV = peak particle velocity; in/sec = inches per second; FTA = Federal Transit Administration			
Source: California Department of Transportation, Transportation and Construction Vibration Guidance Manual, 2020 and Federal Transit Administration; Transit Noise and Vibration Assessment Manual, 2018.			

Ground vibration can be a concern in instances where buildings shake, and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. Common sources for groundborne vibration are planes, trains, and construction activities such as earth-moving which requires the use of heavy-duty earth moving equipment. For the purposes of this analysis, a PPV (in/sec) is used to evaluate construction-generated vibration for building damage and human complaints.

### 3 REGULATORY SETTING

To limit population exposure to physically or psychologically damaging as well as intrusive noise levels, the Federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise.

#### 3.1 FEDERAL

No federal laws, regulations, or policies for construction-related noise and vibration directly apply to the proposed project. However, the Federal Transit Administration (FTA) has developed general assessment criteria for analyzing construction noise. Although FTA standards are intended for federally funded mass transit projects, the impact assessment procedures and criteria included in the FTA's Transit Noise and Vibration Impact Assessment Manual (FTA 2018) routinely are used to evaluate a variety of projects proposed by local jurisdictions (i.e., not exclusively used for transit projects). The FTA construction guidelines state that each A-weighted sound level increase of 10 dB corresponds to an approximate doubling of subjective loudness. As a result, a 10-dB increase in the ambient noise level is often used as the threshold to determine if an increase in ambient noise levels because of construction would be considered substantial.

#### 3.2 STATE OF CALIFORNIA

##### California Government Code

California Government Code Section 65302(f) mandates that the legislative body of each county and city adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines established by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of "normally acceptable", "conditionally acceptable", "normally unacceptable", and "clearly unacceptable" noise levels for various land use types. Single-family homes are "normally acceptable" in exterior noise environments up to 60 CNEL and "conditionally acceptable" up to 70 CNEL. Multiple-family residential uses are "normally acceptable" up to 65 CNEL and "conditionally acceptable" up to 70 CNEL. Schools, libraries, and churches are "normally acceptable" up to 70 CNEL, as are office buildings and business, commercial, and professional uses.

##### Title 24 – Building Code

The State's noise insulation standards are codified in the California Code of Regulations, Title 24: Part 1, Building Standards Administrative Code, and Part 2, California Building Code. These noise standards are applied to new construction in California for interior noise compatibility from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are located near major transportation noise sources, and where such noise sources create an exterior noise level of 65 dBA CNEL or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to 45 dBA CNEL. Compliance with Title 24 interior noise standards occurs during the permit review process and generally protects a proposed project's users from existing ambient outdoor noise levels.

##### California Department of Transportation

Caltrans provides guidelines regarding vibration associated with construction and operation of transportation infrastructure. Table 3 provides Caltrans' vibration guidelines for potential damage to different types of structures. Generally, people are more sensitive to vibration during nighttime hours, when sleeping, rather than daytime hours. Numerous studies have been conducted to characterize the human response to vibration. Table 3 also provides Caltrans' guidelines regarding vibration annoyance potential (expressed as PPV).

### 3.3 LOCAL

#### City of San José

The San José General Plan identifies goals, policies, and implementations in the Noise Element. The Noise Element provides a basis for comprehensive local programs to regulate environmental noise and protect citizens from excessive exposure. Table 4: Land-Use Compatibility Guidelines for Community Noise in San José highlights five land-use categories and the outdoor noise compatibility guidelines.

**Table 4: Land-Use Compatibility Guidelines for Community Noise in San José**

Land-Use Category	Exterior Noise Exposure (DNL), in dBA		
	Normally Acceptable <sup>1</sup>	Conditionally Acceptable <sup>2</sup>	Normally Unacceptable <sup>3</sup>
Residential, Hotels and Motels, Hospitals, and Residential Care	Up to 60	>60 to 75	>75
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds	Up to 65	>65 to 80	>80
Schools, Libraries, Museums, Meeting Halls, Churches	Up to 60	>60 to 75	>75
Office Buildings, Business Commercial, and Professional Offices	Up to 70	>70 to 80	>75
Sports Area, Outdoor Spectator Sports	Up to 70	>70 to 80	>65
Public and Quasi-Public Auditoriums, Concert Halls, Amphitheaters	-	>55 to 70	>70
1. 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. 2. Conditionally Acceptable – Specified land use may be permitted only after detailed analysis of the noise reduction requirements and noise mitigation features included in the design. 3. Unacceptable – New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies. Development will only be considered when technically feasible mitigation is identified that is also compatible with relevant design guidelines.			
Source: City of San José General Plan, 2023			

The following lists applicable noise goals and targets that apply to the Project obtained from the Envision San José 2040 General Plan:

**Goal EC – 1:** 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 Day/Night Average Sound Level (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 San José 2040 General Plan traffic volumes to ensure land use compatibility and 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 4](#) above). The acceptable exterior noise level objective is established for the City, except in the environs of the Mineta 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 standards for noise from sources other than aircraft and elevated roadway segments.

**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 generation of 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 – 1.6:** Regulate the effects of operational noise from existing and new industrial and commercial development on adjacent uses through noise standards in the City’s Municipal Code.

**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 – 1.13:** Update noise limits and acoustical descriptors in the Zoning Code to clarify noise standards that apply to land uses throughout the City.

**Policy 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:** Minimize vibration impacts on people, residences, and business operations.

**Policy EC – 2.3:** Require new development to minimize continuous vibration impacts to adjacent uses during demolition and construction. For sensitive historic structures, including ruins and ancient monuments or building that are documented to be structurally weakened, a continuous vibration limit of 0.08 in/sec PPV will be used to minimize the potential for cosmetic damage to a building. A continuous 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*

According to San José Municipal Code, Section 20.100.450, construction hours within 500 feet of a residential unit are limited to the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday, unless otherwise allowed in a Development Permit or other planning approval. The Municipal Code does not establish quantitative noise limits for construction activities in the City. Table 5: City of San José Zoning Ordinance Noise Standards shows the San José standards for maximum noise level at the property line.

**Table 5: City of San José Zoning Ordinance Noise Standards**

Land Use Types	Maximum Noise Level in Decibels at Property Line
Commercial use adjacent to a property used or zoned for residential purposes	55
Commercial use adjacent to a property used or zoned for commercial purposes or use other than commercial or residential purposes	60

Source: City of San José Municipal Code section 20.40.600.

### **Town of Los Gatos**

Because the Project site is 990 feet east from the Town of Los Gatos boundary line, the pertinent noise standards and regulations for the City of Los Gatos are provided below and discussed in the analysis for informational purposes. The Environment and Sustainability Element of the Los Gatos General Plan contains land use compatibility guidelines which are summarized in Table 6: Los Gatos Land Use Noise Compatibility Criteria.

**Table 6: Los Gatos Land Use Noise Compatibility Criteria**

Land Use Category	Community Noise Exposure ( $L_{dn}$ or CNEL, dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential-Low Density Single-Family, Duplex, Mobile Homes	<60	55 – 70	70 – 75	75<
Residential Multi-Family	<65	60 – 70	70 – 75	75<
Commercial-Motels, Hotels, Transient Lodging	<65	60 – 70	70 – 80	80<
Schools, Libraries, Churches, Hospitals, Nursing Homes	<70	60 – 70	70 – 80	80<
Amphitheaters, Concert Hall, Auditorium, Meeting Hall	-	50 – 70	-	65<
Sports Arenas, Outdoor Spectator Sports	-	50 – 75	-	70<
Playgrounds, Neighborhood Parks	<70	-	67.5 – 75	72.5<
Golf Courses, Riding Stables, Water Recreation, Cemeteries	<75	-	70 – 80	80<
Office Buildings, Business Commercial, Professional, and Mixed-Use Developments	<70	67.5 – 77.5	75 – 90<	90<
Industrial, Manufacturing, Utilities, Agriculture	<75	70 – 80	75 – 90<	90<

CNEL = Community Noise Equivalent Level;  $L_{dn}$  = Day/Night Average; NA = Not Applicable

Normally Acceptable: Specified Land Use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction, without any special insulation requirements.

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

Normally Unacceptable: New construction or development should generally be discouraged. A detailed analysis of noise reduction requirements must be made and needed noise insulation features included in design.

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

Source: Town of Los Gatos, *General Plan Environment and Sustainability Element*, 2022.

### *Town of Los Gatos Municipal Code*

Standards established under the Los Gatos Municipal Code are discussed for informational purposes. The City's Noise Ordinance (Chapter 16) purpose is to maintain or reduce noise levels in the City to avoid exposure to unacceptable or harmful noise generated by equipment and/or amplified sound that is subject to regulation and control by the City; placing noise limits for residential, commercial, and industrial zones; maintain appropriate noise level standards for construction-related activities; and identify applicable exemptions. Los Gatos noise limits from Chapter 16 of the Los Gatos Municipal Code is dependent on the location of sensitive receptors within the Los Gatos Noise Zone Maps. The ambient noise levels are based on the location of sensitive receptors in Los Gatos relevant to the Good Samaritan Hospital Project site. The ambient noise levels for the location of Los Gatos sensitive receptors in the Noise Zone Map are 55 dBA (6:00 a.m. to 1:00 p.m.), 59 dBA (1:00 p.m. to 10:00 p.m.), and 51 dBA (10:00 p.m. to 6:00 a.m.). For residential land uses, Section 16.20.015 of the Los Gatos Municipal Code states that a noise level more than 6 dB above the noise level specified for that noise zone shown in the Noise Zone Map exceeds the exterior noise level threshold. For commercial and industrial land uses, Section 16.20.025 of the Los Gatos municipal code states a noise level more than 8 dB above the noise level specified for that noise zone shown in the noise zone map exceeds the exterior noise level threshold. For public space land uses, Section 16.20.030 of the Los Gatos municipal code states a noise level more than 15 dB above the noise level specified for that noise zone shown in the noise zone map exceeds the exterior noise level threshold.

Section 16.20.036 limits construction to between the hours of 8:00 a.m. and 6:00 p.m. Monday through Friday and between 9:00 a.m. and 4:00 p.m. on Saturdays. Section 16.20.035 also prohibits construction noise exceeding 85 dBA at any point twenty-five feet or more from the source of noise. Construction is not allowed on Sundays or weekday holidays unless it is a homeowner or tenant personally performing construction, alteration, or repair activities on their own property between the hours of 9:00 a.m. and 4:00 p.m. on Sundays and holidays. Construction activities are allowed on Sundays and holidays if the Town manager or designee finds evidence of an emergency that imperils the public safety and the immediate health of the occupants. The chief building official may also modify the permitted hours of construction upon twenty-four (24) hours written notice to the contractor, applicant, developer, or owner. This construction is able to occur between 9:00 a.m. and 5:00 p.m. on Sundays and weekday holidays.

### **City of Campbell**

Because the Project site is 1,100 feet southeast from the City of Campbell boundary line, the pertinent noise standards and regulations for the City of Campbell are provided below and discussed in the analysis below for informational purposes. The Noise Element of the Campbell General Plan contains land use compatibility guidelines which are summarized in Table 7: Campbell Land Use Compatibility for Community Noise Environment.



**Table 7: Campbell Land Use Compatibility for Community Noise Environment**

Land Use Category	Community Noise Exposure ( $L_{dn}$ or CNEL, dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Single-Family Residential	<60	60 – 70	-	70<
Multi-Family Residential <sup>1</sup> , Hotels, and Motels	<65	65 – 75	-	75<
Schools, Libraries, Museums, Hospitals, Personal Care, Public Assembly	<65	65 – 75	-	75<
Outdoor Sports and Recreation, Playgrounds, Neighborhood Parks	<65	65 – 80	-	80<
Office Buildings, Business Commercial, and Professional	<67.5	67.5 – 77.5	-	77.5<
Industrial	<70	70 – 80	-	80<
CNEL = Community Noise Equivalent Level; $L_{dn}$ = Day/Night Average; NA = Not Applicable				
<u>Normally Acceptable</u> : Specified Land Use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction, without any special insulation requirements. <u>Conditionally Acceptable</u> : Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features are included in the design. <u>Normally Unacceptable</u> : New construction or development should generally be discouraged. A detailed analysis of noise reduction requirements must be made and needed noise insulation features included in design. <u>Clearly Unacceptable</u> : New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies. 1. Residential components of Mixed-Use developments are subject to the Multi-Family Residential Noise Standards unless otherwise allowed in conjunction with Policy N-2.2.				
Source: City of Campbell, <i>General Plan Noise Element Table N-1</i> , 2022.				

### *City of Campbell Municipal Code*

Standards established under the Campbell Municipal Code are discussed for informational purposes. The City's Noise Control Ordinance (Section 21.16.070) purpose is to prohibit unnecessary, excessive, and annoying sound levels from all sources. The City of Campbell is designated a quiet city, and at certain levels, sounds are detrimental to the welfare and health to the citizens of Campbell. Section 21.16.070 prescribes standards for and to provide effective and readily available standards and penalties for violations within this chapter. Section 18.04.052 further discusses time and noise standards and limitations as it relates to construction activities within Campbell. Campbell's noise standards are shown in Table 8: City of Campbell Stationary (Non-Transportation) Noise Source Standards.



**Table 8: City of Campbell Stationary (Non-Transportation) Noise Source Standards**

Land Use	Daytime (6:00 a.m. to 11:00 p.m.)		Nighttime (11:00 p.m. to 6:00 a.m.)	
	Average $L_{eq}$	Maximum $L_{max}$	Average $L_{eq}$	Maximum $L_{max}$
Residential	55	70	45	65
<ol style="list-style-type: none"> <li>1. The residential standards apply to all properties that are zoned for residential use. The exterior noise level standard is to be applied at the property line of the receiving land use or at a designated outdoor activity area. For mixed-use projects, the exterior noise level standard may be waived (at the discretion of the decision-making body) if the residential portion of the project does not include a designated activity area and mitigation of property line noise is not practical.</li> <li>2. Each of the noise levels specified above shall be lowered by 5 dBA for tonal noises characterized by a whine, screech, or hum, noises consisting primarily of speech or music, or recurring impulsive noises. In no case shall mitigation be required to a level that is less than existing ambient noise levels, as determined through measurements conducted during the same operational period as the subject noise source.</li> <li>3. In situations where the existing noise level exceeds the noise levels indicated in the above table, any new noise source must include mitigation that reduces the noise level of the noise source to the existing level plus 3 dB</li> </ol>				
Source: City of Campbell, <i>General Plan Noise Element Table N-2, 2022</i>				

Section 18.04.052 limits construction to between the hours of 8:00 a.m. and 5:00 p.m. Monday through Friday and between 9:00 a.m. and 4:00 p.m. on Saturdays. Section 18.04.052 also prohibits environmentally disruptive noise over 50 dB such as air compressors without mufflers, continuously running motors or generators, loud playing music or radios during the authorized hours of construction. Construction is not allowed on Sundays or weekday holidays unless it is a residential construction permitted for homeowner permits, when the work is being performed by only the owner of the property, provided no construction activity or loud noises are conducted prior to 6:00 a.m. or after 7:00 p.m. Monday through Saturday, and prior to 8:00 a.m. or after 6:00 p.m. on Sundays or holidays. Construction activities may be permitted at any hour or day of the week where emergency conditions exist as determined by the building official. An exception to the time of work activity may be granted to the general contractor if the building official determines that construction activity and/or noises will not be detrimental to adjacent neighbors. Hours of operation would be determined by the building official on a case-by-case basis. An exception for construction activity outside of the standard construction hours shall be permitted when under contracts awarded by the City for public improvements with working hours specified by the City engineer.

## 4 EXISTING CONDITIONS

### 4.1 EXISTING NOISE SOURCES

The City of San José is impacted by various noise sources. Mobile sources of noise, especially cars and trucks, are the most common and significant sources of noise in most communities. Other sources of noise are the various land uses (i.e., residential, commercial, institutional, and recreational and parks activities) throughout the City that generate stationary-source noise.

#### Noise Measurements

To determine the ambient noise levels in the Project area, five short-term (10-minute) noise measurements and one long-term (24-hour) noise measurement were taken using a Larson Davis SoundExpert LxT Type I integrating sound level meter on February 17, 2023; refer to [Appendix A](#) for existing noise measurement data and [Figure 8: Noise Measurement Locations](#).

Short-Term measurement 1 (ST-1) and ST-4 were taken to represent the ambient noise level at residences to the east of the Project site; ST-1 was located in the parking lot of the Cambrian Center parking lot and ST-4 was positioned near the east parking lot entrance. ST-2 and ST-3 were taken to represent existing parking lot noise levels at the Project site; and ST-5 was taken to represent existing traffic noise levels along Samaritan Drive. Long-Term measurement 1 (LT-1) was taken to represent existing traffic, parking lot, siren, and pedestrian activity noise levels at the Project site. [Table 9: Noise Measurements](#), provides the ambient noise levels measured at these locations.

**Table 9: Noise Measurements**

Site No.	Location	L <sub>eq</sub> (dBA)	L <sub>min</sub> (dBA)	L <sub>max</sub> (dBA)	L <sub>dn</sub> (dBA)	Time
ST-1	2360 Samaritan Place	58.1	52.8	75.2	-	9:27 a.m. – 9:37 a.m.
ST-2	Parking lot south of the hospital across Samaritan Drive	58.6	50.1	69.3	-	9:48 a.m. – 9:58 a.m.
ST-3	West of the hospital in the parking lot	56.7	53.4	68.3	-	10:33 a.m. – 10:43 a.m.
ST-4	Samaritan Drive near the east parking lot entrance	63.0	54.5	73.2	-	10:58 a.m. – 11:08 a.m.
ST-5	Intersection between Samaritan Court and Samaritan Drive	61.5	53.9	71.1	-	10:05 a.m. – 10:15 a.m.
LT-1	Samaritan Drive near the east parking lot entrance	62.8	42.6	97.4	67.5	11:23 a.m. – 11:23 a.m.

Source: Noise Measurements taken by Kimley-Horn on February 17, 2023.

#### Existing Mobile Noise

Existing roadway noise levels were calculated for the roadway segments in the Project vicinity. This task was accomplished using the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) and existing traffic volumes from the Project Traffic Impact Analysis (Kimley-Horn 2023). The noise prediction model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates used in the FHWA model have been modified to reflect average vehicle noise rates identified for California by the California Department of Transportation (Caltrans). The Caltrans data

indicates that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels. The average daily noise levels along roadway segments in proximity to the Project site are included in [Table 10: Existing Traffic Noise](#).

**Table 10: Existing Traffic Noise**

Roadway Segment	ADT	dBA L <sub>dn</sub> <sup>1</sup>
<b>Bascom Avenue</b>		
North of East Mozart Avenue	36,130	67.2
South of East Mozart Avenue	36,110	67.3
South of Samaritan Drive	33,820	66.8
South of White Oaks Avenue	33,900	67.0
North of SR-85 North Ramp	34,680	67.1
South of 85 North Ramp	37,070	67.4
South of 85-South Ramp	41,090	67.8
<b>Samaritan Drive</b>		
East of National Avenue	23,720	63.2
East of Samaritan Court	16,610	61.7
West of Samaritan Court	16,830	60.3
East of Kinghurst Drive	16,360	61.6
West of Union Avenue	26,420	64.4
East of Bascom Avenue	25,660	63.5
West of Bascom Avenue	2,430	53.2
East of Samaritan Place	16,160	62.2
West of Samaritan Place	16,470	61.7
East of SR 85 South Off Ramp	26,650	64.5
West of SR-85 South Ramp	18,090	62.8
<b>Samaritan Place</b>		
North of Samaritan Drive	870	47.4
<b>Union Avenue</b>		
South of Camden Avenue	29,150	64.9
North of SR-85 North Ramp	38,240	66.1
South of SR-85 North Ramp	42,630	66.7
South of SR-85 South Ramp	38,190	66.1
North of Los Gatos-Almaden Road	28,670	64.8
<b>Los Gatos Boulevard</b>		
North of Walker Street	33,390	65.5
South of Walker Street	33,970	65.5
North of Lark Avenue	27,020	64.6
South of Lark Avenue	31,870	65.4
<b>Lark Avenue</b>		
West of Los Gatos Boulevard	26,190	63.6
East of SR-17 East Ramp	49,980	66.5

ADT = average daily trips; dBA = A-weighted decibels;  $L_{dn}$  = day-night noise level

1. Traffic noise levels are at 100 feet from the roadway centerline. The actual sound level at any receptor location is dependent upon such factors as the source-to-receptor distance and the presence of intervening structures, barriers, and topography.

Source: Based on traffic data provided by Kimley-Horn, 2023. Refer to [Appendix A](#) for traffic noise modeling assumptions and results.

The Project site is primarily surrounded by medical office buildings, apartments, and single-family residential neighborhoods. Residential uses exist east of the Project site. The existing mobile noise in the Project's immediate area are generated along Bascom Drive, which is west of the Project site, Samaritan Drive which is south of the Project site, and Samaritan Place which is east of the Project site.

### Existing Stationary Noise

The primary sources of stationary noise in the Project vicinity are those associated with the operations of the existing hospital building on-site, nearby residential uses to the east of the site, and existing mixed-used commercial west of the Project site. The noise associated with these sources may represent a single-event noise occurrence, short-term noise, or long-term/continuous noise.

## 4.2 SENSITIVE RECEPTORS

Noise exposure standards and guidelines for various types of land uses reflect the varying noise sensitivities associated with each of these uses. Residences, hospitals, schools, guest lodging, libraries, and churches are treated as the most sensitive to noise intrusion and therefore have more stringent noise exposure targets than do other uses, such as manufacturing or agricultural uses that are not subject to impacts such as sleep disturbance.

### City of San José Sensitive Receptors

As shown in [Table 11: City of San José Sensitive Receptors](#) and [Figure 9: Sensitive Receptors](#), the nearest sensitive receptors include apartments approximately 45 feet southeast to the Project site across Samaritan Place, the Cambrian Center Retirement Home approximately 50 feet southeast of the Project site, and single family residences along Lost Oaks Drive approximately 200 feet south of the Project site. These distances are measured from the Project site to the sensitive receptor property line.

**Table 11: City of San José Sensitive Receptors**

Receptor Description	Distance and Direction from the Project Site <sup>1</sup>
Apartments along Samaritan Place	45 feet east
Cambrian Center Retirement Home	50 feet southeast
Residences along Lost Oaks Drive	200 feet south
Residences along Elester Court	230 feet southeast
Residences along Samaritan Drive	480 feet southeast
1. Distances are measured from the Project site boundary to the receptor property line.	
Source: Google Earth, 2023.	

### Town of Los Gatos Sensitive Receptors

The Lost Gatos City boundary line is located along National Avenue, approximately 1,000 feet west of the Project site. As shown in [Table 12: Town of Los Gatos Sensitive Receptors](#) and [Figure 9: Sensitive Receptors](#), nearest sensitive receptors include single-family residences along National Avenue approximately 990 feet west of the Project site, single-family residences along Cam Del Sol approximately

1,020 feet southwest, and single-family residences along Penn Way approximately 1,130 feet southwest. These distances are measured from the Project site to the nearest sensitive receptor property line.

**Table 12: Town of Los Gatos Sensitive Receptors**

Receptor Description	Distance and Direction from the Project Site <sup>1</sup>
Single family residences along National Avenue	990 feet west
Single family residences along Cam Del Sol	1,020 feet southwest
Single family residences along Penn Way	1,130 feet southwest
1. Distances are measured from the Project site boundary to the receptor property line.	
Source: Google Earth, 2023.	

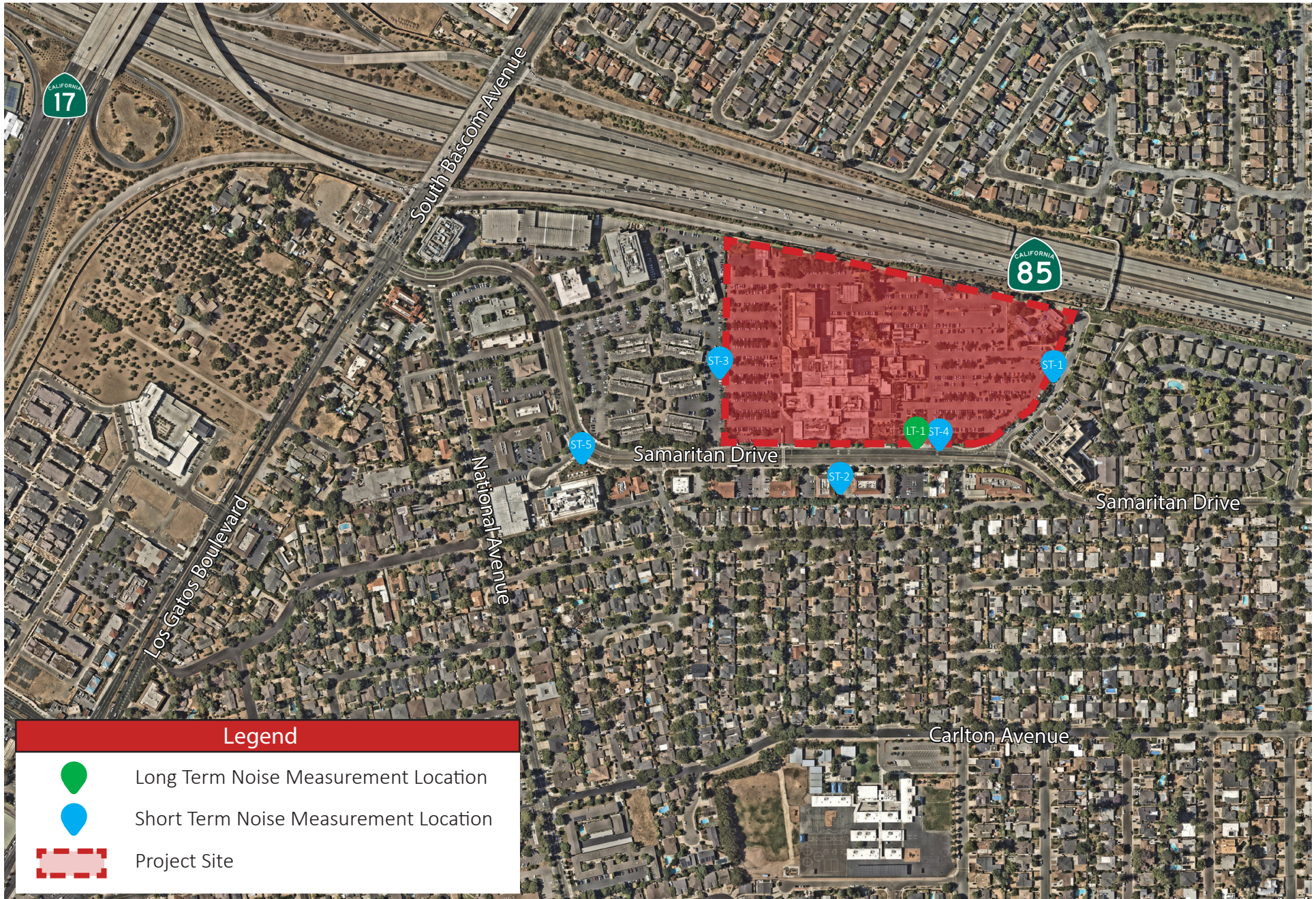
### City of Campbell Sensitive Receptors

The Campbell City boundary line is located along South Bascom Avenue, approximately 1,100 feet northwest of the Project site. As shown in [Table 13: City of Campbell Sensitive Receptors](#) and [Figure 9: Sensitive Receptors](#), nearest sensitive receptors include a single-family residence along East Mozart Avenue approximately 1,220 feet northwest, and multifamily residences along South Bascom Avenue approximately 1,250 feet northwest. These distances are measured from the Project site to the nearest sensitive receptor property line.

**Table 13: City of Campbell Sensitive Receptors**

Receptor Description	Distance and Direction from the Project Site <sup>1</sup>
Single-family Residence along East Mozart Avenue	1,220 feet northwest
Single-family residences along South Bascom Avenue	1,250 feet northwest
1. Distances are measured from the Project site boundary to the receptor property line.	
Source: Google Earth, 2023.	





Source: Nearmap, 2023

**Figure 8: Noise Measurement Locations**

Good Samaritan Hospital Master Plan  
Technical Report



Not to scale

**Kimley»Horn**  
Expect More. Experience Better.





Source: Nearmap, 2023

**Figure 9: Sensitive Receptors**

Good Samaritan Hospital Master Plan  
Technical Report



Not to scale

**Kimley»Horn**  
Expect More. Experience Better.



## 5 SIGNIFICANCE CRITERIA AND METHODOLOGY

### 5.1 CEQA THRESHOLDS

State Environmental Quality Act (CEQA) Guidelines Appendix G contains analysis guidelines related to noise impacts. These guidelines have been used by the City to develop thresholds of significance for this analysis. A project would create a significant environmental impact if it would:

- NOI-1      Generate 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;
- NOI-2      Generate excessive groundborne vibration or groundborne noise levels; and
- NOI-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.

### 5.2 METHODOLOGY

#### Construction

Construction noise estimates are based upon typical noise levels generated by construction equipment published by the Federal Transit Administration (FTA) and FHWA. Construction noise is assessed in dBA  $L_{eq}$ . This unit is appropriate because  $L_{eq}$  can be used to describe noise level from operation of each piece of equipment separately, and levels can be combined to represent the noise level from all equipment operating during a given period. The FTA Transit Noise and Vibration Impact Assessment Manual (2018) (FTA Noise and Vibration Manual) identifies a maximum 8-hour noise level standard of 80 dBA  $L_{eq}$  at residential uses, 85 dBA  $L_{eq}$  at commercial, and 90 dBA  $L_{eq}$  at industrial uses for short-term construction activities. Noise generated by short-term construction activities below the FTA's maximum 8-hour noise level standard would have a less than significant impact.

Reference noise levels are used to estimate noise levels at nearby noise-sensitive receptors based on a standard noise attenuation rate of 6 dB per doubling of distance (line-of-sight method of sound attenuation for point sources of noise). Construction noise is analyzed at a distance from the property line of the nearest receptor to the main construction activity at the Project site to provide an average, representative construction noise level for the various phases. Construction noise level estimates do not account for the presence of intervening structures or topography, which may reduce noise levels at receptor locations. Therefore, the noise levels presented herein represent a conservative, reasonable worst-case estimate of actual temporary construction noise.

#### Operations

The analysis of the existing and future noise environments is based on noise prediction modeling and empirical observations. Reference noise level data are used to estimate the Project operational noise impacts from stationary sources. Noise levels are collected from field noise measurements and other published sources from similar types of activities are used to estimate noise levels expected with the Project's stationary sources. The reference noise levels are used to represent a worst-case noise



environment as noise level from stationary sources can vary throughout the day. On-site operational noise levels from the proposed Project were evaluated using SoundPLAN. This program computes predicted noise levels at noise-sensitive areas through a series of adjustments to reference sound levels. SoundPLAN also accounts for topography, groundcover type, and intervening structures. Reference noise level data are used to estimate the Project operational noise impacts from stationary sources. The Existing Year and With Project traffic noise levels in the Project vicinity were calculated using the FHWA Highway Noise Prediction Model (FHWA-RD-77-108).

### Vibration

Groundborne vibration levels associated with Project construction-related activities were evaluated utilizing typical groundborne vibration levels associated with construction equipment, obtained from FTA published data for construction equipment. Potential groundborne vibration impacts related to structural damage and human annoyance were evaluated, considering the distance from construction activities to nearby land uses and typically applied criteria for structural damage and human annoyance.

For a building that is constructed with reinforced concrete with no plaster, the FTA guidelines show that a vibration level of up to 0.20 in/sec PPV is considered safe and would not result in any vibration damage. Human annoyance is evaluated in vibration decibels (VdB) (the vibration velocity level in decibel scale) and occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. The FTA Transit Noise and Vibration Manual identifies 80 VdB as the threshold for buildings where people normally sleep.

## 5.3 SIGNIFICANCE CRITERIA

This report relies on the following standards and significance criteria to evaluate potential noise and vibration impacts from the proposed Project in accordance with the CEQA thresholds of significance outlined above in Section 5.1: CEQA Thresholds.

### Construction Noise

Per General Plan Policy EC-1.7, the City of San José considers projects involving 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 within 500 feet of residential land uses or within 200 feet of commercial land uses or offices to be significant and require the mitigation stated in Policy EC-1.7. The construction noise analysis also quantifies construction noise and compares the construction-related noise levels to the FTA's 8-hour average construction noise standards of 80 dBA  $L_{eq}$  at residential uses, 85 dBA  $L_{eq}$  at commercial uses, and 90 dBA  $L_{eq}$  at industrial uses.<sup>11</sup> The construction analysis compares construction noise to FTA thresholds for informational purposes.

### Operational Noise

Per General Plan Policy EC-1.2, a significant permanent noise level increase would occur if the Project would result in: a) a noise level increase of 5 dBA  $L_{dn}$  or greater, with a future noise level of less than 60 dBA  $L_{dn}$ , or b) a noise level increase of 3 dBA  $L_{dn}$  or greater, with a future noise level of 60 dBA  $L_{dn}$  or

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<sup>11</sup> Federal Transit Administration; Transit Noise and Vibration Assessment Manual, 2018.

greater. Additionally, a significant noise impact would be identified if the Project would expose persons to or generate noise levels that would exceed applicable noise standards presented in the General Plan.

Section 20.30.700 of the City's Municipal Code establishes a limit of 55 dBA for commercial areas adjacent to residential areas and 60 dBA for commercial uses adjacent to commercial areas, when measured at the property line. The analysis below compares generated noise levels to the Municipal Code standards, however, the Municipal Code is not used as a criterion to determine the significance of project impacts under CEQA.

### **Vibration**

General Plan Policy EC-2.3 relies on guidance developed by Caltrans to address vibration impacts from development projects in San José. A vibration limit of 12.7 millimeters per second (mm/sec; 0.5 inch/sec) PPV is used for buildings that are structurally sound and designed to modern engineering standards. A conservative vibration limit of five mm/sec (0.2 inches/sec) PPV has been used for buildings that are found to be structurally sound but where structural damage is a major concern. For historic buildings or buildings that are documented to be structurally weakened, a conservative limit of two mm/sec (0.08 inches/sec) PPV is used to provide the highest level of protection.

## 6 POTENTIAL IMPACTS AND MITIGATION

### 6.1 ACOUSTICAL IMPACTS

**Threshold 6.1 Would the Project generate 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

Project construction would last about 11.6 years, but result in only approximately 30 months of substantial noise generating activities. Construction activities would include demolition, grading, foundation work, and building framing. Excavation, cut and fill, and soil hauling also would be required as a part of construction. According to the applicant, pile-driving would also be required for the construction of the central utility plant.

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. During construction, exterior noise levels could affect the residential neighborhoods surrounding the construction site. Project construction would occur approximately 45 feet from the nearest sensitive receptor to the east. However, construction activities would occur throughout the Project site and would not be concentrated at a single point near sensitive receptors. Noise levels typically attenuate (or drop off) at a rate of 6 dB per doubling of distance from point sources, such as industrial machinery.

Construction equipment could include but not limited to concrete/industrial saws, excavators, and dozers during demolition; dozers and tractors/loaders/ backhoes during site preparation; graders, dozers, and tractors during grading; cranes, forklifts, generators, pile drivers, tractors, and welders during building construction; pavers, rollers, mixers, tractors, and paving equipment during paving; and air compressors during architectural coating. Grading and excavation phases of Project construction tend to be the shortest in duration and create the highest construction noise levels due to the operation of heavy equipment required to complete these activities. It shall be noted that only a limited amount of equipment can operate near a given location at a particular time. Equipment typically used during this stage includes heavy-duty trucks, backhoes, bulldozers, excavators, front-end loaders, and scrapers. Operating cycles for these types of construction equipment may involve one or two minutes of full-power operation followed by three to four minutes at lower power settings. Other primary sources of noise would be shorter-duration incidents, such as dropping large pieces of equipment or the hydraulic movement of machinery lifts, which would last less than one minute. Typical noise levels associated with individual construction equipment at a distance of 50 feet are listed in Table 14: Typical Construction Noise Levels.

**Table 14: Typical Construction Noise Levels**

Equipment	Typical Noise Level (dBA) at 50 feet from Source
Air Compressor	80.0
Backhoe	80.0
Compactor	82.0
Concrete Mixer	85.0
Concrete Pump	82.0
Concrete Vibrator	76.0
Crane, Derrick	88.0
Crane, Mobile	83.0
Dozer	85.0
Generator	82.0
Grader	85.0
Impact Wrench	85.0
Jack Hammer	88.0
Loader	80.0
Paver	85.0
Impact Pile Driver	101.0
Pneumatic Tool	85.0
Pump	77.0
Roller	85.0
Saw	83.0
Scraper	85.0
Shovel	82.0
Truck	84.0

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

The FHWA Roadway Construction Noise Model (RCNM) was used to calculate noise levels during construction activities; refer to [Appendix A](#). RCNM is a computer program used to assess construction noise impacts and allows for user-defined construction equipment and user-defined noise limit criteria. Noise levels were calculated for each construction phase and are based on the equipment used, distance to the nearest property/receptor, and acoustical use factor for equipment. In accordance with FTA methodologies, distances were measured from the property line of the receptor to the main construction activity area for each construction phase. Noise levels discussed below assume equipment would operate continuously.

[Table 15: Project Construction Noise Levels](#) shows the Project's exterior construction noise levels would range from approximately 54 dBA  $L_{eq}$  to 75 dBA  $L_{eq}$  at the nearest sensitive receptors and from approximately 58 dBA  $L_{eq}$  to 75 dBA  $L_{eq}$  at the nearest commercial receptors. Construction noise would not exceed the FTA's 8-hour construction noise standards of 80 dBA  $L_{eq}$  for residential uses and/or 85 dBA  $L_{eq}$  at commercial uses. General Plan Policy EC-1.7 requires the Project to use best available noise suppression devices and techniques, and limit construction hours in accordance with Municipal Code Section 20.100.450 to reduce construction noise levels at nearby noise-sensitive uses.

**Table 15: Project Construction Noise Levels**

Construction Phase	Nearest Receptor Location				Modeled Exterior Noise Level (dBA L <sub>eq</sub> ) <sup>2,3</sup>	Noise Threshold (dBA L <sub>eq</sub> ) <sup>4</sup>	Exceeded?
	Project Phase	Land Use	Direction	Distance (feet) <sup>1</sup>			
Demolition	1	Residential	East	510	66.3	80	No
	2	Residential	South	390	68.6	80	No
	3	Residential	South	450	67.4	80	No
	3	Medical Office Building	South	300	70.9	85	No
Site Preparation	1	Residential	East	510	67.5	80	No
	2	Residential	South	390	69.8	80	No
	3	Residential	South	450	68.5	80	No
	3	Medical Office Building	South	300	72.1	85	No
Grading	1	Residential	East	510	68.0	80	No
	2	Residential	South	390	69.4	80	No
	3	Residential	South	450	69.1	80	No
	3	Medical Office Building	South	300	72.7	85	No
Building Construction	1	Residential	East	510	74.7	80	No
	2	Residential	South	390	68.2	80	No
	3	Residential	South	450	67.0	80	No
	1	Medical Office Building	South	300	74.9	85	No
Paving	1	Residential	East	510	66.4	80	No
	2	Residential	South	390	69.7	80	No
	3	Residential	South	450	67.4	80	No
	2	Medical Office Building	South	300	71.9	85	No
Architectural Coating	1	Residential	East	510	53.5	80	No
	2	Residential	South	390	55.9	80	No
	3	Residential	South	450	54.6	80	No
	3	Medical Office Building	South	300	58.2	85	No

1. Distance is measured from the property line of the nearest receptor to the construction activity area at the Project site. This provides an average, representative construction noise level for the various phases.

2. Modeled noise levels conservatively assume the simultaneous operation of all pieces of equipment. Pile-driving equipment is included during the building construction phase.

3. The FTA Noise and Vibration Manual establishes construction noise standards of 80 dBA L<sub>eq</sub>(8-hour) for residential uses and 85 dBA L<sub>eq</sub>(8-hour) for commercial uses.

Source: Federal Highway Administration, *Roadway Construction Noise Model*, 2006. Refer to [Appendix A](#) for noise modeling results.

As shown in [Table 15: Project Construction Noise Levels](#) the loudest noise levels would be approximately 75 dBA L<sub>eq</sub> at the nearest sensitive receptors, which would not exceed the FTA's construction noise standards of 80 dBA L<sub>eq</sub>. The nearest commercial uses to the Project site are 100 feet south along Samaritan Drive. The loudest noise levels would be approximately 75 dBA L<sub>eq</sub> during Phase 1 Building

Construction at these commercial uses, which would not exceed the FTA's construction noise standards of 85 dBA  $L_{eq}$ .

The City of San José does not have a quantitative construction noise standard. However, the City of San José Municipal Code Section 20.100.450 limits construction to the hours between 7:00 a.m. and 7:00 p.m., Monday through Friday, for projects within 500 feet of residential uses unless permission is granted with a development permit or other planning approval. Note the Project is anticipated to request Saturday construction with its development permit. Furthermore, the Project would need to comply with the requirements listed in City's General Policy EC-1.7 referenced in [Section 3.2](#).

Project construction would result in substantial noise-generating activities for more than 12 months within 500 feet of residential uses and 200 feet of commercial uses, which the City considers to be a potentially significant construction noise impact in accordance with General Plan Policy EC-1.7. As such, in compliance with General Plan Policy EC-1.7, Mitigation Measure NOI-1 (MM NOI-1) would require the Project applicant to prepare a Construction Noise Logistics Plan to minimize potential construction noise effects to the adjacent residential and commercial uses.

As noted in General Plan Policy EC-1.7, implementation of a Construction Noise Logistics Plan would "...reduce noise impacts on neighboring residents and other uses" through the Construction Noise Logistics Plan measures described under MM NOI-1 below. Therefore, with implementation of the required MM NOI-1, the Project would comply with General Plan Policy EC-1.7. Therefore, construction noise impacts would be considered less than significant with the implementation of MM NOI-1.

### *Nighttime Construction*

The Project proposes nighttime construction during Phase 1 and Phase 3, which would include 24-hour concrete pouring, however the exact numbers of pours are unknown. As discussed in [Section 2.1: Sound and Environmental Noise](#), noise levels above 45 dBA would affect sleep. Standard construction, which assumes windows to be shut, would result in an exterior-to-interior reduction of approximately 25 dBA.<sup>12</sup> With this reduction, exterior noise level of 70 dBA would not affect sleep.

Nighttime construction activities would require concrete trucks accessing and pouring within the Project site. Based on the nature of concrete pouring and the type of equipment to be used, it is assumed that all noise-generating activities from the equipment would occur on the ground level during the nighttime construction work. The FHWA RCNM modeling software was used to calculate the hourly average noise levels for nighttime concrete pouring. Assuming five pouring trucks and five idling trucks would represent the worst-case noise condition, an hourly average noise level of 82 dBA  $L_{eq}$  at 50 feet would be generated during nighttime work.

As proposed, concrete trucks actively pouring during nighttime construction could be positioned as close as 110 feet from the nearest residences to the east during construction of Garage East. As such, concrete trucks were modeled at 110 feet from the nearest residences to the east. At these distances and assuming five pouring trucks and five idling trucks would operate simultaneously at the same location, hourly

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<sup>12</sup> United States Department of Housing and Urban Development, *Noise Guidebook*, 2009.

average noise levels would be approximately 75 dBA  $L_{eq}$  at the residences to the east and would exceed the nighttime noise limit of 45 dBA indoors and 70 dBA outdoors by approximately 5 dBA.<sup>13</sup>

Nighttime construction activities, including concrete pours, would result in a potentially significant impact at the residences east of the Project site. LT-1 measured nighttime noise as 60.3 dBA  $L_{dn}$  between 10:00 p.m. and 7:00 a.m. Based on the noise modeling done for the Project, it was determined that nighttime construction activities, including concrete pours, must be at least 120 feet from the Project's eastern boundary to result in noise levels below the 70 dBA outdoor and 45 dBA indoor noise levels instead of the 110 feet modeled originally. Therefore, Mitigation Measure NOI-3 (MM NOI-3) limits active construction equipment, including concrete pouring equipment, between 10:00 p.m. and 7:00 a.m. to five or fewer pieces of equipment and requires all equipment to be at least 120 feet from the eastern Project site boundary. This would reduce outdoor noise levels to 69.8 dBA, which is below the 70 dBA noise level. In addition, MM NOI-3 prohibits concrete trucks from traveling and idling along Samaritan Place between 7:00 p.m. and 7:00 a.m. to further reduce nighttime noise impacts. With the MM NOI-3 incorporated, impacts associated with nighttime construction activities would be less than significant with mitigation.

### *Construction Traffic Noise*

Construction is estimated to last approximately 11.6 years. Construction noise may be generated by large trucks moving materials to and from the Project site. Large trucks would be necessary to deliver building materials as well as remove dump materials. Excavation and cut and fill would be required. Based on the California Emissions Estimator Model (CalEEMod) default assumptions for this Project, the Project would generate the highest number of daily trips during building construction in Phase 1 and 3 and grading in Phase 2. The model estimates that the Project would generate up to 333 worker trips and 151 vendor trips for building construction in Phase 1 for a total of approximately 484 daily vehicle trips. Grading during Phase 2 would have approximately 15 worker trips and 15 hauling trips (370 hauling trips over 24 days) for a total of 30 daily vehicle trips. Building construction of Phase 3 would have approximately 307 worker trips and 136 vendor trips for a total of approximately 443 daily trips. Because of the logarithmic nature of noise levels, a doubling of the traffic volume would result in a noise level increase of 3 dBA.<sup>14</sup> Samaritan Drive between Union Avenue and the SR-85 Off Ramps has an average daily trip volume of approximately 18,700 vehicles, and Samaritan Place (north of Samaritan Drive) has an average daily trip volume of 870 vehicles. Therefore, a maximum of 484 daily Project construction trips would not double the existing traffic volume per day on any local roadways. Construction related traffic noise would not be noticeable and would not create a significant noise impact.

### *Town of Los Gatos Construction Noise Analysis*

The City of San José does not require use of the Town's noise standards to determine the level of significance of Project impacts, but it is provided in this analysis for informational purposes to help decision makers in their consideration of the proposed Project.

For sensitive receptors located in the Town of Los Gatos (i.e., residential uses along National Avenue to the southwest of the Project site), this report utilizes the FTA construction noise standards identified above and Los Gatos Municipal Code Section 16.20.035 (prohibiting construction noise levels of 85 dBA at 25 feet or more from the source) to evaluate construction noise impacts. The nearest residential use

<sup>13</sup> Assuming an exterior-to-interior reduction of approximately 25 dBA.

<sup>14</sup> Per General Plan Policy EC-1.2.

to the Project site in the Town of Los Gatos is approximately 990 feet away. The loudest noise level from construction would be approximately 69 dBA  $L_{eq}$ , which would be below the FTA's construction noise standards of 80 dBA  $L_{eq}$  for residential receivers and Los Gatos Municipal Code Section 16.20.035.<sup>15</sup>

#### *City of Campbell Construction Noise Analysis*

The City of San José does not require use of the City of Campbell's noise standards to determine the level of significance of Project impacts, but is provided in this analysis for informational purposes to help decision makers in their consideration of the proposed Project.

For sensitive receptors located in the City of Campbell (i.e., residential uses to the northwest of the Project site), this report utilizes the FTA construction noise standards identified above to evaluate construction noise impacts. The nearest residential use to the Project site in the City of Campbell is approximately 1,370 feet away. The loudest noise level from construction would be approximately 66 dBA  $L_{eq}$  without accounting for any noise attenuating structures, which would be below the FTA's construction noise standards of 80 dBA  $L_{eq}$  for residential uses. Noise levels discussed above represent worst case scenarios and assume equipment would operate continuously at the closest point to sensitive receptors.

#### **Standard Permit Conditions**

- i. Limit construction to the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday for any on-site or off-site work within 500 feet of any residential unit. Construction outside of these hours may be approved through a development permit based on a site-specific "construction noise mitigation plan" and a finding by the Director of Planning, Building and Code Enforcement that the construction noise mitigation plan is adequate to prevent noise disturbance of affected residential use.
- ii. Construct solid plywood fences around ground level construction sites adjacent to operational businesses, residences, or other noise-sensitive land uses.
- iii. Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- iv. Prohibit unnecessary idling of internal combustion engines.
- v. Locate stationary noise-generating equipment such as air compressors or portable power generators as far as possible from sensitive receptors. Construct temporary noise barriers to screen stationary noise-generating equipment when located near adjoining sensitive land uses.
- vi. Utilize "quiet" air compressors and other stationary noise sources where applicable.
- vii. Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the Project site.

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<sup>15</sup> Federal Highway Administration, Roadway Construction Noise Model, 2006. Refer to [Appendix A](#) for noise modeling results.



- viii. Notify all adjacent business, 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.
- ix. If complaints are received or excessive noise levels cannot be reduced using the measures above, erect a temporary noise control blanket barrier along surrounding building facades that face the construction sites.
- x. Designate a “disturbance coordinator” who shall be responsible for responding to any complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., bad muffler, etc.) and shall 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 it in the notice sent to neighbors regarding the construction schedule.

**Mitigation Measures:****MM NOI-1 Construction Noise Logistics Plan**

Prior to the issuance of any City-issued grading or building demolition permits for Phase 1, Phase 2, and Phase 3 of the Project, the Project applicant shall submit and implement a construction noise logistics plan for that construction phase that specifies hours of construction, noise and vibration 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. The noise logistic plan shall be submitted to the Director of Planning, Building and Code Enforcement or Director’s designee prior to the issuance of any grading or demolition permits. As a part of the construction noise logistics plan, construction activities for the Project shall include, at a minimum, the following best management practices:

- Prohibit unnecessary idling of internal combustion engines. Post signs at gates and other places where vehicles may congregate reminding operators of the State’s Airborne Toxic Control Measure (ATCM) limiting idling to no more than 5 minutes.
- Construction contracts for each construction phase specify that all construction equipment, fixed or mobile, shall be equipped with State required noise attenuation devices such as properly operating and maintained mufflers.
- For each construction phase, property owners and occupants located within 300 feet of the Project boundary shall be sent a notice, at least 15 days prior to commencement of construction activities (whichever comes first), regarding the construction schedule of the proposed Project. A sign, legible at 50 feet shall also be posted at the Project construction site during each construction phase. All notices and signs shall be reviewed and approved by the Director of Planning, Building and Code Enforcement or Director’s designee, prior to mailing or posting and shall indicate the dates and duration of construction activities, as well as provide a contact name and a telephone number for the Noise Disturbance

Coordinator where residents can inquire about the construction process and register complaints.

- Prior to issuance of any City-issued, grading or building permit for Phase 1, Phase 2, and Phase 3 construction, the Contractor shall provide evidence that at all times during construction activities and on-site construction staff member shall be designated as a Noise Disturbance Coordinator. The Noise Disturbance Coordinator is responsible for responding to complaints about construction noise. When a complaint is received, the Noise Disturbance Coordinator shall determine the cause (e.g., starting too early, bad muffler, etc.), implement reasonable measures to resolve the complaint, and document actions taken. All notices sent to residential units within 300 feet of the construction site and all signs posted at the construction site, shall include the contact name and the telephone number for the Noise Disturbance Coordinator.

#### **MM NOI-2 Noise Barriers**

In addition to MM NOI-1, the following measure shall be implemented prior to the start of Phase 3 construction only:

To reduce noise levels for work during Phase 3 construction occurring adjacent to residences, or other noise-sensitive land uses, a noise barrier(s) shall be constructed on the south, southeastern, and eastern edge of the work site facing the receptor(s). Barriers shall be constructed either with two layers of 0.5-inch-thick plywood (joints staggered) and K-rail or other support, or with a limp mass barrier material weighing 2 pounds per square foot. If commercial barriers are employed, such barriers shall be constructed of materials with a Sound Transmission Class rating of 25 or greater. The project Applicant shall construct a temporary sound wall or other noise attenuating feature with a demonstrated ability to achieve the City's land use compatibility noise level of 75 dBA  $L_{dn}$  for residential uses as measured at the property line of the existing residences. The applicant shall submit a plan showing the location and specifications of the noise barrier walls and the noise levels achieved to the Director of Planning, Building and Code Enforcement or Director's designee.

#### **MM NOI-3 Nighttime Construction**

Prior to the issuance of any demolition or grading permit issuance (whichever comes first) for Phase 1 and Phase 3 construction, the Project shall submit a construction plan for concrete pours to the Director of Planning, Building and Code Enforcement or Director's designee, for review and approval. The construction plan shall include, but is not limited to, the following measures:

- Limit the active equipment during nighttime (10:00 p.m. to 7:00 a.m.) to five or fewer pieces of equipment and at least 120 feet from the eastern Project boundary (this shall be demonstrated by providing a site plan identifying a 110 feet buffer with no truck zone identified or similar method).
- To the extent consistent with applicable regulations and safety considerations, operation of back-up beepers shall be avoided near sensitive receptors between 7:00 p.m. and 7:00 a.m., and/or the work sites shall be arranged in a way that avoids the need for any reverse motions of trucks or the sounding of any reverse motion alarms

during nighttime work. If these measures are not feasible, equipment and trucks operating during the nighttime hours with reverse motion alarms must be outfitted with SAE J994 Class D alarms (ambient-adjusting, or “smart alarms” that automatically adjust the alarm to 5 dBA above the ambient near the operating equipment).

- Prohibit concrete trucks from traveling and idling along Samaritan Place during all nighttime activities.
- Residences or other noise-sensitive land uses within 500 feet of construction sites should be notified of the nighttime construction schedule occurring between 7:00 p.m. and 7:00 a.m. and on weekends (“off hours construction”), in writing, at least 15 days prior to the beginning of off hours construction. This notification shall specify the anticipated dates for all off hour construction and provide the contact information for the Noise Disturbance Coordinator.
- Designate a Noise Disturbance Coordinator to be responsible for responding within 48 hours to any local complaints including about off hour construction noise. Any nuisance complaint reported during nighttime operations (7:00 p.m. and 7:00 a.m.) shall be deemed an urgent issue and shall be responded to immediately. The Coordinator would determine the cause of the noise complaints (e.g., starting too early, bad muffler, etc.) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the Coordinator at the construction site. Additionally, a log of noise complaints and responses shall be maintained and made available to the City upon request.

### **Operational Noise**

As mentioned previously, the Project site is currently occupied by an existing hospital building, central utility plant (CUP), surface parking lot, and emergency vehicle access area that generates traffic on the surrounding roadway segments, and a helicopter pad that generates overflights in the surrounding areas. Therefore, operational noise associated with the Project’s land use are already experienced at receptors close to the Project site. However, implementation of the Project would change the location of the operational noise sources and would add new noise sources to the Project’s vicinity. The major noise sources associated with the Project that would potentially impact existing and future nearby residences include the following:

- Off-site traffic and ambulance noise;
- Helicopter noise;
- Mechanical equipment (i.e., CUP, air conditioners, etc.);
- Parking areas (i.e., car door slamming, car radios, engine start-up, and car pass-by)

As discussed above, the closest sensitive receptors are located approximately 45 feet to the east of the Project site. Since the Project’s use is not a new non-residential land use, General Plan Policy EC-1.3, which states that noise generated by new nonresidential land uses shall not exceed 55 dBA  $L_{dn}$  at the property lines of adjacent existing or planned noise-sensitive uses, would not be applicable. However, the City of San José General Plan Policy EC-1.2, which establishes incremental noise standards of 5 dBA where noise levels would remain “Normally Acceptable” and 3 dBA where noise levels would equal or exceed the “Normally Acceptable” level for land uses sensitive to increased noise levels, would be applicable. Further, the General Plan lists the Normally acceptable levels are for residential uses as 60 dBA  $L_{dn}$ .

Section 20.30.700 of the City's Municipal Code establishes a limit of 55 dBA for commercial areas adjacent to residential areas and 60 dBA for commercial uses adjacent to commercial areas. Although the Municipal Code is not used as a criterion to determine the significance of Project impacts under CEQA, the operational noise for the proposed Project shall be addressed with respect to the City's Municipal Code threshold of 55 dBA to minimize disturbance to the existing and future residences surrounding the Project site. Impacts associated with each major noise source are discussed in more detail below.

### *Traffic Noise*

Implementation of the Project would generate increased traffic volumes along study roadway intersections and access points. As noted in the Transportation Analysis (Kimley-Horn, 2023), primary trips were assigned to study intersections and access points using the proposed trip distribution and typical routes to and from the site. The Project is expected to generate 9,861 net new ADT, which would result in noise increases on Project area roadways. The net ADT for the Project is the average number of trips per day to the Project based on the land use with a reduction taken for the existing vehicle trips to the Project site associated with the existing hospital use.

In general, a traffic noise increase of less than 3 dBA is barely perceptible to people, while a 5 dBA increase is readily noticeable<sup>16</sup>. Generally, traffic volumes on Project area roadways would have to approximately double for the resulting traffic noise levels to increase by 3 dBA. Permanent increases in ambient noise levels of less than 3 dBA are considered to be less than significant, and therefore, traffic volume increases that are less than double do not result in a noise impact.

As shown in **Table 16: Existing and Project Traffic Noise**, the existing traffic-generated noise levels on Project area roadways is between 47 dBA  $L_{dn}$  and 68 dBA  $L_{dn}$  at 100 feet from the centerline. As previously described,  $L_{dn}$  is 24-hour average noise level with a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

Traffic noise levels for roadways primarily affected by the Project were calculated using the FHWA's Highway Noise Prediction Model (FHWA-RD-77-108). Traffic noise modeling was conducted for conditions with and without the Project, based on traffic volumes provided (Kimley-Horn, 2023). As noted in Table 16, Existing Plus Project noise levels 100 feet from the centerline would range from 49.5 dBA  $L_{dn}$  to 68.4 dBA  $L_{dn}$ . The Project would have the highest increase of 2.1 dBA on Samaritan Place, north of Samaritan Drive, which is below the perceptible 3.0 dBA noise level increase. Therefore, the Project would result in a less than significant impact on existing traffic noise levels.

**Table 16: Existing and Project Traffic Noise**

Roadway Segment	Existing Year		With Project		Project Change from Existing Conditions	Significant Impact?
	ADT	dBA L <sub>dn</sub> <sup>1</sup>	ADT	dBA L <sub>dn</sub> <sup>1</sup>		
Bascom Avenue						
North of East Mozart Avenue	36,130	67.2	38,950	67.6	0.4	No
South of East Mozart Avenue	36,110	67.3	38,930	67.6	0.4	No
South of Samaritan	33,820	66.8	36,830	67.1	0.3	No

<sup>16</sup> California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013.

Roadway Segment	Existing Year		With Project		Project Change from Existing Conditions	Significant Impact?
	ADT	dBA L <sub>dn</sub> <sup>1</sup>	ADT	dBA L <sub>dn</sub> <sup>1</sup>		
South of White Oaks Avenue	33,900	67.0	36,710	67.3	0.3	No
North of SR-85 North Ramps	34,680	67.1	37,500	67.4	0.3	No
South of 85 North Ramp	37,070	67.4	41,300	67.9	0.5	No
South of 85-South Ramp	41,090	67.8	46,920	68.4	0.6	No
<b>Samaritan Drive</b>						
East of National Avenue	23,720	63.2	32,580	64.6	1.4	No
East of Samaritan Court	16,610	61.7	25,470	63.5	1.8	No
West of Samaritan Court	16,830	60.3	25,690	62.2	1.9	No
East of Kinghurst Drive	16,360	61.6	25,370	63.5	1.9	No
West of Union Avenue	26,420	64.4	31,800	65.2	0.8	No
East of Bascom Avenue	25,660	63.5	34,510	64.8	1.3	No
West of Bascom Avenue	2,430	53.2	2,430	53.2	0.0	No
East of Samaritan Place	16,160	62.2	22,040	63.6	1.4	No
West of Samaritan Place	16,470	61.7	22,890	63.1	1.4	No
East of SR 85 South Off Ramp	26,650	64.5	32,050	65.3	0.8	No
West of SR-85 South Ramp	18,090	62.8	23,830	64.0	1.2	No
<b>Samaritan Place</b>						
North of Samaritan Drive	870	47.4	1,410	49.5	2.1	No
<b>Union Avenue</b>						
South of Camden Avenue	29,150	64.9	29,960	65.0	0.1	No
North of SR-85 North Ramp	38,240	66.1	39,210	66.2	0.1	No
South of SR-85 North Ramp	42,630	66.7	45,320	67.0	0.3	No
South of SR-85 South Ramp	38,190	66.1	39,530	66.2	0.1	No
North of Los Gatos-Almaden Road	28,670	64.8	30,000	65.0	0.2	No
<b>Los Gatos Boulevard</b>						
North of Walker Street	33,390	65.5	36,400	65.8	0.3	No
South of Walker Street	33,970	65.5	36,980	65.9	0.4	No
North of Lark Avenue	27,020	64.6	30,020	65.0	0.4	No
South of Lark Avenue	31,870	65.4	32,530	65.5	0.1	No
<b>Lark Avenue</b>						
West of Los Gatos Boulevard	26,190	63.6	28,530	64.0	0.4	No
East of SR-17 East Ramp	49,980	66.5	52,320	66.7	0.2	No
ADT = average daily trips; dBA = A-weighted decibels; L <sub>dn</sub> = day-night noise level						
1. Traffic noise levels are at 100 feet from the roadway centerline. The actual sound level at any receptor location is dependent upon such factors as the source-to-receptor distance and the presence of intervening structures, barriers, and topography.						
Source: Based on traffic data provided by Kimley-Horn, 2023. Refer to <a href="#">Appendix A</a> for traffic noise modeling assumptions and results.						



Table 17: Background and Background Plus Project Traffic Noise shows the background conditions or background year traffic. Background ADT is the average traffic volumes per day based on the existing Project site conditions added with the traffic volumes of approved but not yet constructed developments in the vicinity of the Project area. Background plus Project ADT is the Background ADT added with the net vehicle trips from the proposed Project. As shown in **Table 17**, Background Year Plus Project roadway noise levels with the Project would range from 49.5 dBA to 69.3 dBA. Project traffic would traverse and disperse over Project area roadways, where existing ambient noise levels already exist. Future development associated with the Project would result in additional traffic on adjacent roadways, thereby increasing vehicular noise near existing and proposed land uses. The Project would have the highest increase of 2.1 dBA on Samaritan Place north of Samaritan Drive. However, the 2.1 dBA increase is under the perceptible 3.0 dBA noise level increase per GP Policy EC-1.1. Therefore, impacts are less than significant.

**Table 17: Background and Background Plus Project Traffic Noise**

Roadway Segment	Background Year		With Project		Project Change from Background Conditions	Significant Impact?
	ADT	dBA L <sub>dn</sub> <sup>1</sup>	ADT	dBA L <sub>dn</sub> <sup>1</sup>		
Bascom Avenue						
North of East Mozart Avenue	39,730	67.7	42,550	68.0	0.3	No
South of East Mozart Avenue	39,710	67.7	42,530	68.0	0.3	No
South of Samaritan	41,580	67.7	44,590	68.0	0.3	No
South of White Oaks Avenue	37,500	67.4	40,310	67.7	0.3	No
North of SR-85 North Ramps	38,300	67.5	41,120	67.8	0.3	No
South of 85 North Ramp	44,270	68.2	48,500	68.5	0.3	No
South of 85-South Ramp	51,770	68.8	57,600	69.3	0.5	No
Samaritan Drive						
East of National Avenue	31,460	64.5	40,320	65.5	1.0	No
East of Samaritan Court	22,230	63.0	31,090	64.4	1.4	No
West of Samaritan Court	24,110	61.9	32,970	63.3	1.4	No
East of Kinghurst Drive	21,120	62.7	30,130	64.3	1.6	No
West of Union Avenue	30,760	65.0	36,140	65.7	0.7	No
East of Bascom Avenue	33,400	64.7	42,250	65.7	1.0	No
West of Bascom Avenue	7,630	58.2	7,630	58.2	0.0	No
East of Samaritan Place	20,200	63.2	26,080	64.3	1.1	No
West of Samaritan Place	20,510	62.6	26,930	63.8	1.2	No
East of SR 85 South Off Ramp	30,830	65.2	36,230	65.9	0.7	No
West of SR-85 South Ramp	22,110	63.7	27,850	64.7	1.0	No
Samaritan Place						
North of Samaritan Drive	870	47.4	1,410	49.5	2.1	No
Union Avenue						
South of Camden Avenue	33,870	65.5	34,680	65.6	0.1	No
North of SR-85 North Ramp	41,480	66.4	42,450	66.5	0.1	No
South of SR-85 North Ramp	46,170	67.0	48,860	67.3	0.3	No
South of SR-85 South Ramp	39,590	66.2	40,930	66.4	0.2	No
North of Los Gatos-Almaden Road	29,670	65.0	31,000	65.2	0.2	No
Los Gatos Boulevard						
North of Walker Street	40,450	66.3	43,460	66.6	0.3	No
South of Walker Street	43,550	66.6	46,560	66.9	0.3	No
North of Lark Avenue	37,640	66.0	37,800	66.0	0.0	No
South of Lark Avenue	37,070	66.1	37,710	66.2	0.1	No

Roadway Segment	Background Year		With Project		Project Change from Background Conditions	Significant Impact?
	ADT	dBA L <sub>dn</sub> <sup>1</sup>	ADT	dBA L <sub>dn</sub> <sup>1</sup>		
Lark Avenue						
West of Los Gatos Boulevard	31,970	64.5	31,450	64.4	-0.1	No
East of SR-17 East Ramp	57,380	67.1	59,720	67.2	0.1	No
ADT = average daily trips; dBA = A-weighted decibels; L <sub>dn</sub> = day-night noise level						
1. Traffic noise levels are at 100 feet from the roadway centerline. The actual sound level at any receptor location is dependent upon such factors as the source-to-receptor distance and the presence of intervening structures, barriers, and topography.						
Source: Based on traffic data provided by Kimley-Horn, 2023. Refer to <a href="#">Appendix A</a> for traffic noise modeling assumptions and results.						

### *Helicopter Noise*

During Phase 1 of the Project, the existing helipad would remain in its current location in the Project site's northwest corner and an additional helipad would be constructed in the center of the Project site on the roof of the newly constructed hospital building. This new helipad would be located closer to sensitive receptors to the east and south. However, this is not a trauma hospital therefore the helicopter activity would be infrequent. Additionally, the purpose of the second helipad is for more flexibility in emergency situations and not to increase capacity. Helicopter trips are not anticipated to increase due to the additional helipad so operational noise would not increase in the surrounding area. Furthermore, the preferred approach for helicopter trips is along SR-85. As such, the flight path into the hospital avoids flying over residences north of the Project site. Noise generated by helicopters and the additional helipad would not result in an increase over existing conditions and helicopter noise would be less than significant.

### *Emergency Vehicle Noise*

Currently, emergency vehicles noise exists by the Project site due to the existing hospital land use. With the existing hospital building, emergency vehicles enter through a driveway located on Samaritan Drive approximately 690 feet west of the Samaritan Drive and Samaritan Place intersection and generate siren noise infrequently along Samaritan Drive. After the construction of Phase 1, emergency vehicles would enter through a new driveway located at the Samaritan Place Cul-De-Sac approximately 660 feet northeast of the Samaritan Drive and Samaritan Place intersection. This new path for emergency vehicles would result in an increased exposure to siren noise for residences along Samaritan Drive due to change in location; emergency vehicle trips would remain similar to current trip counts. However, emergency vehicle noise exists in the current ambient conditions, is very short in duration, and occur infrequently. Therefore, emergency vehicle noise would not result in a new or significant noise level in the surrounding area and would be less than significant.

### *Stationary Noise Sources*

Project implementation would create new sources of noise in the Project vicinity from mechanical equipment, parking lot noise, on-site vehicle circulation, and landscape maintenance activities. Each noise source is discussed in more detail below.

### Mechanical Equipment

Potential stationary noise sources related to long-term operation of the Project would include mechanical equipment such as rooftop heating, ventilation, and air conditioning (HVAC) units, emergency generators, chillers, boilers, pumps, air compressors, water heaters, and cooling towers. The reference noise levels and location of mechanical equipment to be used at the Project site are provided below:

- Rooftop HVAC: 52 dBA at 50 feet<sup>17</sup>, located on the rooftop level above the hospital and medical office building. This equipment would run continuously to regulate the temperature of the hospital building.
- Generators: 82 dBA at 50 feet<sup>18</sup>, located within the CUP. This equipment would be for emergency usage, but was conservatively modeled to run continuously and simultaneously with all other equipment.
- Chillers: 69 dBA at 50 feet<sup>19</sup>, located within the CUP. This equipment was conservatively modeled to run continuously and simultaneously with all other equipment.
- Boilers: 90 dBA at 5 feet<sup>20</sup>, located within the CUP. This equipment was conservatively modeled to run continuously and simultaneously with all other equipment.
- Pumps: 77 dBA at 50 feet<sup>21</sup>, located within the CUP and the mechanical yard. This equipment was conservatively modeled to run continuously and simultaneously with all other equipment.
- Air Compressors: 80 dBA at 50 feet<sup>22</sup>, located within the CUP. This equipment was conservatively modeled to run continuously and simultaneously with all other equipment.
- Water Heaters: 66 dBA at 3 feet<sup>23</sup>, located within the CUP. This equipment was conservatively modeled to run continuously and simultaneously with all other equipment.
- Cooling Towers: 79 dBA at 5 feet<sup>24</sup>, located within the mechanical yard. This equipment was conservatively modeled to run continuously and simultaneously with all other equipment.

Each of the stationary noise sources discussed above were modeled in SoundPLAN and conservatively assumed to operate simultaneously for 24 hours.

### Parking Areas

The Project would provide approximately 2,179 vehicle parking spaces through the east and west garages and surface parking located south of the proposed hospital building. Traffic associated with parking lots

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<sup>17</sup> Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, *Noise Navigator Sound Level Database with Over 1700 Measurement Values*, 2015.

<sup>18</sup> Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

<sup>19</sup> Johnson Controls, *Sound Pressure, Sound Power and Air-Cooled Chillers*, October 28, 2016.

<sup>20</sup> Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, *Noise Navigator Sound Level Database with Over 1700 Measurement Values*, 2015.

<sup>21</sup> Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

<sup>22</sup> Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

<sup>23</sup> Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, *Noise Navigator Sound Level Database with Over 1700 Measurement Values*, 2015.

<sup>24</sup> SPX Cooling Technologies, *NC 8400 Steel Cooling Tower Engineering Data*, April 2012.



is typically not of sufficient volume to exceed community noise standards, which are usually based on a time-averaged scale such as the CNEL scale. The maximum sound levels generated by a car door slamming, engine starting up, and car pass-bys range from 53 to 61 dBA<sup>25</sup> and may be an annoyance to adjacent noise-sensitive receptors. However, parking noise events would be instantaneous and short-term in duration. Additionally, parking noise already occurs at the Project site and adjacent properties to the east, south, and west under existing conditions. However, parking, driveway, and noise from on-site vehicle circulation would be consistent with existing noise in the vicinity and would be partially masked by background traffic noise from motor vehicles traveling along Samaritan Drive to the south of the Project site and Samaritan Place to the east of the Project site. Noise from on-site parking lot movements were modeled in SoundPLAN and were assumed to occur throughout the Project site.

#### Combined On-Site Noise Levels

The noise levels associated with buildout of the Project were modeled with the SoundPLAN software. SoundPLAN allows computer simulations of noise situations, and creates noise contour maps using reference noise levels, topography, point and area noise sources, mobile noise sources, and intervening structures. Inputs to the SoundPLAN model included ground topography and ground type, existing and proposed intervening structures, noise source locations and heights, receiver locations, and sound power level data. The SoundPLAN run for Project operations conservatively assumes the simultaneous operation of all on-site noise sources by time period. The roadway noise from SR-85 was not modeled in SoundPLAN, but would provide attenuation of the on-site noise sources at the sensitive receptors located across the highway.

Utilizing the reference noise level data described above, SoundPLAN was used to calculate noise levels at the nearest sensitive receptors surrounding the Project site. It should be noted that predicted noise levels are conservative estimates since it was assumed that all equipment and operational activity at the Project site would occur in a simultaneous manner during the daytime and nighttime hours. In reality, it is anticipated that most of these noise sources would occur intermittently throughout the day and night (except for rooftop HVAC and some CUP equipment which would operate in a steady-state manner). The modeled noise levels also account for noise attenuation from the existing perimeter wall on the northern property boundary, as well as existing buildings, structures, and walls surrounding the Project site. The modeled Project noise levels are provided in Table 18: Project Operational Noise Levels, Table 19: Project Operational Noise Levels at the Cambrian Center, and

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<sup>25</sup> Kariel, H. G., *Noise in Rural Recreational Environments*, Canadian Acoustics 19(5), 3-10, 1991.

Figure 10: Project Noise Contours.

Table 18: Project Operational Noise Levels

Receptor No.	Land Use	City	Modeled Noise Level – Daytime (dBA L <sub>eq</sub> )		Modeled Noise Level – Nighttime (dBA L <sub>eq</sub> )		Modeled Noise Level – 24-hour (dBA L <sub>dn</sub> )	
			1 <sup>st</sup> Floor	2 <sup>nd</sup> Floor	1 <sup>st</sup> Floor	2 <sup>nd</sup> Floor	1 <sup>st</sup> Floor	2 <sup>nd</sup> Floor
1	Residential	Campbell	38.8	-	38.6	-	46.6	-
3	Residential	Los Gatos	35.4	-	34.4	-	40.6	-
4	Residential	Los Gatos	36.1	-	34.6	-	40.9	-
5	Residential	Los Gatos	31.5	-	31.1	-	37.2	-
6	Residential	Los Gatos	31.9	-	31.4	-	37.5	-
7	Residential	Los Gatos	34.7	-	34.0	-	40.2	-
8	Residential	Los Gatos	35.6	-	35.1	-	41.2	-
9	Residential	Los Gatos	36.1	-	35.2	-	41.4	-
10	Residential	San José	58.0	57.2	57.9	57.1	64.0	63.1
11	Residential	San José	54.6	53.6	54.5	53.4	60.5	59.5
12	Residential	San José	56.6	55.5	56.5	55.4	62.5	61.4
13	Residential	San José	51.3	50.7	51.0	50.3	57.0	56.4
14	Residential	San José	51.1	50.1	50.8	49.7	56.9	55.8
15	Residential	San José	47.0	45.1	46.7	44.6	52.8	50.8
16	Residential	San José	45.5	45.0	45.0	44.5	51.1	50.6
17	Residential	San José	45.0	44.4	44.6	44.0	50.7	50.1
18	Residential	San José	44.8	44.6	44.4	44.3	50.5	50.4
19	Residential	San José	41.8	-	41.6	-	47.7	-
20	Residential	San José	43.4	-	43.3	-	49.3	-
21	Residential	San José	42.7	-	42.3	-	48.4	-
22	Residential	San José	43.7	-	43.2	-	49.3	-
23	Residential	San José	44.0	-	43.6	-	49.7	-
24	Residential	San José	43.1	-	42.8	-	48.9	-
25	Residential	San José	44.5	-	44.2	-	50.3	-
26	Residential	San José	44.5	-	44.3	-	50.3	-
27	Residential	San José	44.6	-	44.3	-	50.4	-
28	Residential	San José	44.4	-	43.9	-	50.0	-
29	Residential	San José	44.2	-	43.2	-	49.4	-
30	Residential	San José	44.9	-	43.9	-	50.1	-
31	Residential	San José	44.4	-	43.5	-	49.6	-
32	Residential	San José	43.3	-	42.4	-	48.6	-
33	Residential	San José	42.6	-	41.3	-	47.6	-
34	Residential	San José	44.7	-	43.5	-	49.8	-
35	Residential	San José	43.3	-	42.0	-	48.3	-
36	Residential	San José	44.9	-	43.8	-	50.0	-
37	Residential	San José	45.2	-	44.0	-	50.2	-
38	Residential	San José	43.7	-	42.7	-	48.9	-
39	Residential	San José	43.3	-	41.8	-	48.1	-

Receptor No.	Land Use	City	Modeled Noise Level – Daytime (dBA L <sub>eq</sub> )		Modeled Noise Level – Nighttime (dBA L <sub>eq</sub> )		Modeled Noise Level – 24-hour (dBA L <sub>dn</sub> )	
			1 <sup>st</sup> Floor	2 <sup>nd</sup> Floor	1 <sup>st</sup> Floor	2 <sup>nd</sup> Floor	1 <sup>st</sup> Floor	2 <sup>nd</sup> Floor
40	Residential	San José	46.6	-	45.7	-	51.9	-
41	Residential	San José	42.3	43.0	40.3	40.7	46.7	47.2
42	Residential	San José	42.2	-	40.6	-	47.0	-
43	Residential	San José	41.4	-	40.1	-	46.4	-
44	Residential	San José	43.0	-	41.8	-	48.0	-
45	Residential	San José	53.2	-	53.1	-	59.2	-
46	Residential	San José	52.6	-	52.6	-	58.6	-
47	Residential	San José	54.0	57.5	54.0	57.5	60.0	63.5
48	Residential	San José	54.4	-	54.4	-	60.4	-
49	Residential	San José	53.5	60.5	53.4	60.5	59.4	66.5
50	Residential	San José	51.9	-	51.8	-	57.8	-
51	Residential	San José	52.1	58.3	52.0	58.3	58.0	64.3
52	Residential	San José	51.3	-	51.3	-	57.3	-
53	Residential	San José	48.2	56.9	48.2	56.9	54.2	62.9
54	Residential	San José	41.7	49.1	41.5	48.9	47.6	54.9
55	Residential	San José	41.5	48.3	41.2	48.1	47.2	54.2

Source: SoundPLAN Essential version 5.1. See [Appendix A](#) for noise modeling data and results.

**Table 19: Project Operational Noise Levels at the Cambrian Center**

Receptor No.	Land Use	Floor	Modeled Noise Level – Daytime (dBA L <sub>eq</sub> )	Modeled Noise Level – Nighttime (dBA L <sub>eq</sub> )	Modeled Noise Level – 24-Hour (dBA L <sub>dn</sub> )
2	Retirement Home	1	49.1	48.9	54.9
2	Retirement Home	2	48.4	48.2	54.2
2	Retirement Home	3	46.6	46.1	52.2
2	Retirement Home	4	46.4	45.8	51.9
2	Retirement Home	5	45.9	45.0	51.2
2	Retirement Home	6	48.9	48.3	54.4
2	Retirement Home	7	48.1	47.4	53.6

Source: SoundPLAN Essential version 5.1. See [Appendix A](#) for noise modeling data and results.

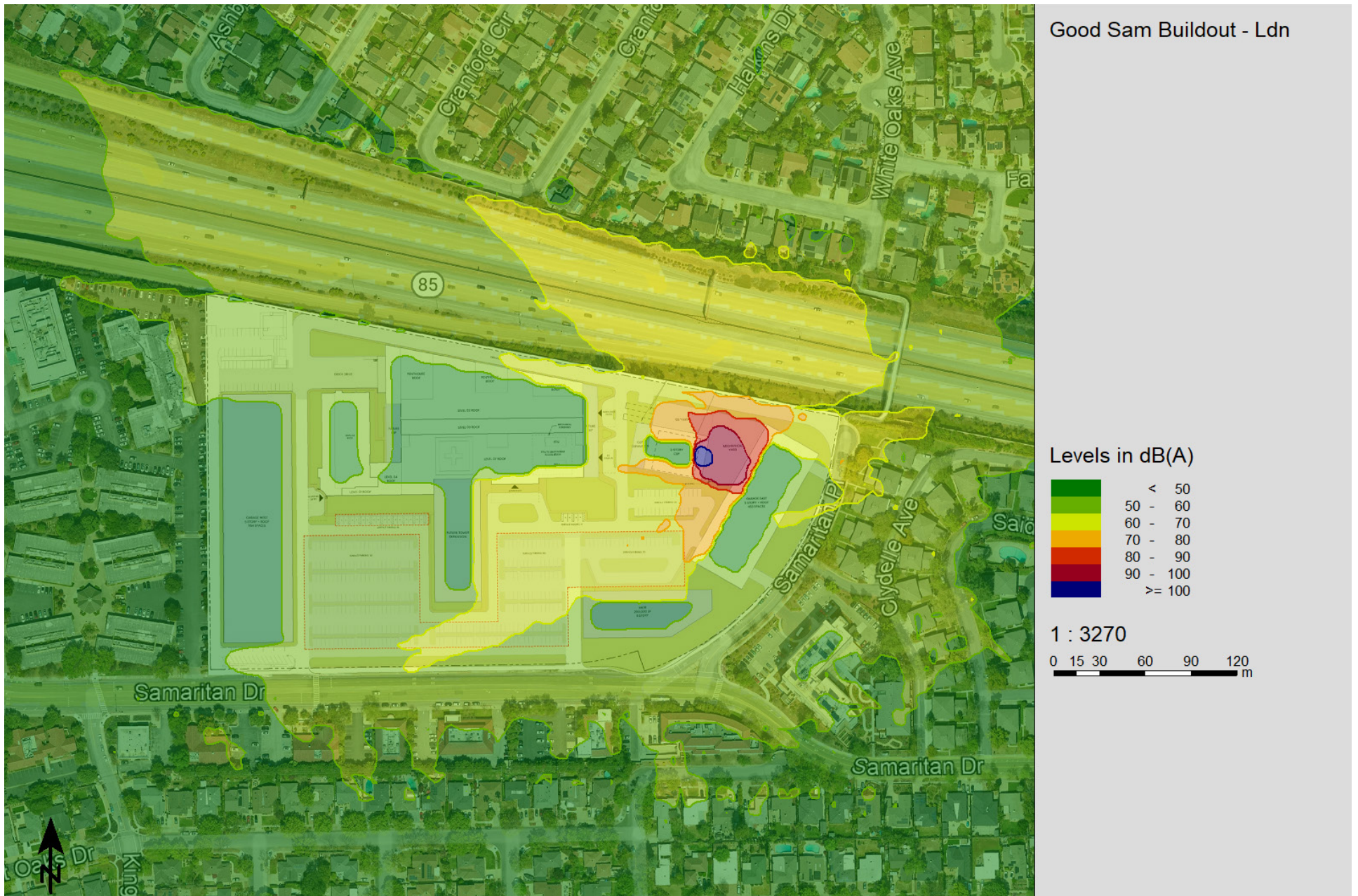
Section 20.30.700 of the City's Municipal Code establishes a limit of 55 dBA for commercial areas adjacent to residential areas and 60 dBA for commercial uses adjacent to commercial areas. As shown in [Table 18](#), Project-generated noise levels at the nearest residential uses would range from 31.1 dBA L<sub>eq</sub> to 60.5 dBA L<sub>eq</sub> and would exceed the City's Municipal Code noise limit of 55 dBA for residential areas. However, measured existing ambient noise levels at the nearest sensitive receptors already exceed the 55 dBA L<sub>eq</sub> noise standard. The measured noise at ST-1 (sensitive receptor) was 58.1 dBA L<sub>eq</sub>. Project-generated noise levels at the nearest commercial uses would remain below 60 dBA as shown in

Figure 10: Project Noise Contours and would not exceed the City's Municipal Code noise limit of 60 dBA for commercial uses adjacent to commercial areas.

Table 20: Composite Project Operational Noise shows Project noise levels from all sources combined with existing ambient levels at the nearest sensitive receptors. It is noted that the Project would not be considered a new hospital land use since hospital uses currently occupy the Project site (in a similar location to the proposed Project) but introduces other new uses, such as medical offices, and alters some of the existing operational parameters. As discussed in Section 5.3: Significance Criteria, a 5 dBA  $L_{dn}$  increase where noise levels would remain "Normally Acceptable", and 3 dBA  $L_{dn}$  increase where noise levels would equal or exceed the "Normally Acceptable" is considered a significant impact in accordance with General Plan Policy EC-1.2.

As shown in Table 20, the maximum increase in 24-hour ambient noise levels from the Project would not exceed the incremental noise standards established in General Plan Policy EC-1.2 and EC-1.3. The highest noise level increase would be 2.5 dBA  $L_{dn}$  at the second floor of Receptor 49 (a residence to the north of the Project site across SR-85). The Project would not exceed the incremental noise standards from General Plan Policy EC-1.2 at any residential uses in the Project vicinity; see Table 20. Further, daytime and nighttime noise levels would increase by less than 5 dBA when ambient noise levels are normally acceptable and 3 dBA when ambient noise levels are above normally acceptable levels for all nearby receptors, except for a 3.1 dBA  $L_{eq}$  nighttime noise increase at the second floor of Receptor 49. However, as mentioned previously, nighttime noise generated by the Project represents a worst-case scenario with continuously operating mechanical equipment. In reality, mechanical equipment would not run continuously for 24 hours. Further, with nearby topography and attenuating features such as the existing walls and the nearby roadways to the north, the increase in nighttime noise at the second floor of Receptor 49 may be less than 3 dBA  $L_{eq}$ . Additionally, operational noise levels would be further masked by background traffic noise from motor vehicles traveling along SR-85 and by interfering landscaping to the south of the residential uses. Thus, noise levels at the receptors to the north across SR-85 would be lower than the modeled noise levels shown below. Therefore, the Project's operational noise levels would not result in a significant increase over existing ambient noise levels at the nearest noise-sensitive uses. Impacts would be less than significant in this regard.





Source: SoundPLAN, 2023

**Figure 10: Project Noise Contours**

Good Samaritan Hospital Master Plan  
Technical Report



Table 20: Composite Project Operational Noise

Receptor Number	Land Use	Daytime				Nighttime				24-Hour ( $L_{dn}$ )					
		Daytime Ambient Noise Level ( $dBA L_{eq}$ ) <sup>1</sup>	Composite Project Operations	Ambient + Project ( $dBA L_{eq}$ )	Increase Over Daytime Ambient ( $dBA L_{eq}$ )	Nighttime Ambient Noise Level ( $dBA L_{eq}$ ) <sup>1</sup>	Composite Project Operations	Ambient + Project ( $dBA L_{eq}$ )	Increase Over Nighttime Ambient ( $dBA L_{eq}$ )	Existing Ambient Noise Level ( $dBA L_{dn}$ )	Composite Project Operations	Ambient + Project ( $dBA L_{eq}$ )	Increase Over Ambient ( $dBA L_{dn}$ )	Incremental Threshold <sup>2</sup>	Exceed Threshold?
1	Residential	58.1	38.8	58.2	0.1	60.3	38.6	60.3	0.0	67.5	44.6	67.5	0.0	3.0	NO
2	Cambrian Center	58.1	49.1	58.6	0.5	60.3	48.9	60.6	0.3	67.5	54.9	67.7	0.2	3.0	NO
2	Cambrian Center	58.1	48.4	58.5	0.4	60.3	48.2	60.6	0.3	67.5	54.2	67.7	0.2	3.0	NO
2	Cambrian Center	58.1	46.6	58.4	0.3	60.3	46.1	60.5	0.2	67.5	52.2	67.6	0.1	3.0	NO
2	Cambrian Center	58.1	46.4	58.4	0.3	60.3	45.8	60.5	0.2	67.5	51.9	67.6	0.1	3.0	NO
2	Cambrian Center	58.1	45.9	58.4	0.3	60.3	45.0	60.4	0.1	67.5	51.2	67.6	0.1	3.0	NO
2	Cambrian Center	58.1	48.9	58.6	0.5	60.3	48.3	60.6	0.3	67.5	54.4	67.7	0.2	3.0	NO
2	Cambrian Center	58.1	48.1	58.5	0.4	60.3	47.4	60.5	0.2	67.5	53.6	67.7	0.2	3.0	NO
3	Residential	55.0	35.4	55.0	0.0	51.0	34.4	51.1	0.1	51.0	40.6	51.4	0.4	3.0	NO
4	Residential	55.0	36.1	55.1	0.1	51.0	34.6	51.1	0.1	51.0	40.9	51.4	0.4	3.0	NO
5	Residential	55.0	31.5	55.0	0.0	51.0	31.1	51.0	0.0	51.0	37.2	51.2	0.2	3.0	NO
6	Residential	55.0	31.9	55.0	0.0	51.0	31.4	51.0	0.0	51.0	37.5	51.2	0.2	3.0	NO
7	Residential	55.0	34.7	55.0	0.0	51.0	34.0	51.1	0.1	51.0	40.2	51.3	0.3	3.0	NO
8	Residential	55.0	35.6	55.0	0.0	51.0	35.1	51.1	0.1	51.0	41.2	51.4	0.4	3.0	NO
9	Residential	55.0	36.1	55.1	0.1	51.0	35.2	51.1	0.1	51.0	41.4	51.5	0.5	3.0	NO
10	Residential	58.1	58.0	61.1	3.0	60.3	57.9	62.3	2.0	67.5	64.0	69.1	1.6	3.0	NO
10	Residential	58.1	57.2	60.7	2.6	60.3	57.1	62.0	1.7	67.5	63.1	68.8	1.3	3.0	NO
11	Residential	58.1	54.6	59.7	1.6	60.3	54.5	61.3	1.0	67.5	60.5	68.3	0.8	3.0	NO
11	Residential	58.1	53.6	59.4	1.3	60.3	53.4	61.1	0.8	67.5	59.5	68.1	0.6	3.0	NO
12	Residential	58.1	56.6	60.4	2.3	60.3	56.5	61.8	1.5	67.5	62.5	68.7	1.2	3.0	NO
12	Residential	58.1	55.5	60.0	1.9	60.3	55.4	61.5	1.2	67.5	61.4	68.5	1.0	3.0	NO
13	Residential	58.1	51.3	58.9	0.8	60.3	51.0	60.8	0.5	67.5	57.0	67.9	0.4	3.0	NO
13	Residential	58.1	50.7	58.8	0.7	60.3	50.3	60.7	0.4	67.5	56.4	67.8	0.3	3.0	NO
14	Residential	58.1	51.1	58.9	0.8	60.3	50.8	60.8	0.5	67.5	56.9	67.9	0.4	3.0	NO
14	Residential	58.1	50.1	58.7	0.6	60.3	49.7	60.7	0.4	67.5	55.8	67.8	0.3	3.0	NO
15	Residential	58.1	47.0	58.4	0.3	60.3	46.7	60.5	0.2	67.5	52.8	67.6	0.1	3.0	NO
15	Residential	58.1	45.1	58.3	0.2	60.3	44.6	60.4	0.1	67.5	50.8	67.6	0.1	3.0	NO
16	Residential	58.1	45.5	58.3	0.2	60.3	45.0	60.4	0.1	67.5	51.1	67.6	0.1	3.0	NO
16	Residential	58.1	45.0	58.3	0.2	60.3	44.5	60.4	0.1	67.5	50.6	67.6	0.1	3.0	NO
17	Residential	58.1	45.0	58.3	0.2	60.3	44.6	60.4	0.1	67.5	50.7	67.6	0.1	3.0	NO
17	Residential	58.1	44.4	58.3	0.2	60.3	44.0	60.4	0.1	67.5	50.1	67.6	0.1	3.0	NO
18	Residential	58.1	44.8	58.3	0.2	60.3	44.4	60.4	0.1	67.5	50.5	67.6	0.1	3.0	NO
18	Residential	58.1	44.6	58.3	0.2	60.3	44.3	60.4	0.1	67.5	50.4	67.6	0.1	3.0	NO
19	Residential	58.6	41.8	58.7	0.1	60.3	41.6	60.4	0.1	67.5	47.7	67.5	0.0	3.0	NO
20	Residential	58.6	43.4	58.7	0.1	60.3	43.3	60.4	0.1	67.5	49.3	67.6	0.1	3.0	NO
21	Residential	58.6	42.7	58.7	0.1	60.3	42.3	60.4	0.1	67.5	48.4	67.6	0.1	3.0	NO
22	Residential	58.6	43.7	58.7	0.1	60.3	43.2	60.4	0.1	67.5	49.3	67.6	0.1	3.0	NO

Receptor Number	Land Use	Daytime				Nighttime				24-Hour ( $L_{dn}$ )					
		Daytime Ambient Noise Level ( $dBA L_{eq}$ ) <sup>1</sup>	Composite Project Operations	Ambient + Project ( $dBA L_{eq}$ )	Increase Over Daytime Ambient ( $dBA L_{eq}$ )	Nighttime Ambient Noise Level ( $dBA L_{eq}$ ) <sup>1</sup>	Composite Project Operations	Ambient + Project ( $dBA L_{eq}$ )	Increase Over Nighttime Ambient ( $dBA L_{eq}$ )	Existing Ambient Noise Level ( $dBA L_{dn}$ )	Composite Project Operations	Ambient + Project ( $dBA L_{eq}$ )	Increase Over Ambient ( $dBA L_{dn}$ )	Incremental Threshold <sup>2</sup>	Exceed Threshold?
23	Residential	58.6	44.0	58.7	0.1	60.3	43.6	60.4	0.1	67.5	49.7	67.6	0.1	3.0	NO
24	Residential	58.6	43.1	58.7	0.1	60.3	42.8	60.4	0.1	67.5	48.9	67.6	0.1	3.0	NO
25	Residential	58.6	44.5	58.8	0.2	60.3	44.2	60.4	0.1	67.5	50.3	67.6	0.1	3.0	NO
26	Residential	58.6	44.5	58.8	0.2	60.3	44.3	60.4	0.1	67.5	50.3	67.6	0.1	3.0	NO
27	Residential	58.6	44.6	58.8	0.2	60.3	44.3	60.4	0.1	67.5	50.4	67.6	0.1	3.0	NO
28	Residential	58.6	44.4	58.8	0.2	60.3	43.9	60.4	0.1	67.5	50.0	67.6	0.1	3.0	NO
29	Residential	58.6	44.2	58.8	0.2	60.3	43.2	60.4	0.1	67.5	49.4	67.6	0.1	3.0	NO
30	Residential	58.6	44.9	58.8	0.2	60.3	43.9	60.4	0.1	67.5	50.1	67.6	0.1	3.0	NO
31	Residential	58.6	44.4	58.8	0.2	60.3	43.5	60.4	0.1	67.5	49.6	67.6	0.1	3.0	NO
32	Residential	58.6	43.3	58.7	0.1	60.3	42.4	60.4	0.1	67.5	48.6	67.6	0.1	3.0	NO
33	Residential	58.6	42.6	58.7	0.1	60.3	41.3	60.4	0.1	67.5	47.6	67.5	0.0	3.0	NO
34	Residential	58.6	44.7	58.8	0.2	60.3	43.5	60.4	0.1	67.5	49.8	67.6	0.1	3.0	NO
35	Residential	58.6	43.3	58.7	0.1	60.3	42.0	60.4	0.1	67.5	48.3	67.6	0.1	3.0	NO
36	Residential	58.6	44.9	58.8	0.2	60.3	43.8	60.4	0.1	67.5	50.0	67.6	0.1	3.0	NO
37	Residential	58.6	45.2	58.8	0.2	60.3	44.0	60.4	0.1	67.5	50.2	67.6	0.1	3.0	NO
38	Residential	58.6	43.7	58.7	0.1	60.3	42.7	60.4	0.1	67.5	48.9	67.6	0.1	3.0	NO
39	Residential	58.6	43.3	58.7	0.1	60.3	41.8	60.4	0.1	67.5	48.1	67.5	0.0	3.0	NO
40	Residential	58.6	46.6	58.9	0.3	60.3	45.7	60.4	0.1	67.5	51.9	67.6	0.1	3.0	NO
41	Residential	58.6	42.3	58.7	0.1	60.3	40.3	60.3	0.0	67.5	46.7	67.5	0.0	3.0	NO
41	Residential	58.6	43.0	58.7	0.1	60.3	40.7	60.3	0.0	67.5	47.2	67.5	0.0	3.0	NO
42	Residential	58.6	42.2	58.7	0.1	60.3	40.6	60.3	0.0	67.5	47.0	67.5	0.0	3.0	NO
43	Residential	58.6	41.4	58.7	0.1	60.3	40.1	60.3	0.0	67.5	46.4	67.5	0.0	3.0	NO
44	Residential	58.6	43.0	58.7	0.1	60.3	41.8	60.4	0.1	67.5	48.0	67.5	0.0	3.0	NO
45	Residential	58.1	53.2	59.3	1.2	60.3	53.1	61.1	0.8	67.5	59.2	68.1	0.6	3.0	NO
46	Residential	58.1	52.6	59.2	1.1	60.3	52.6	61.0	0.7	67.5	58.6	68.0	0.5	3.0	NO
47	Residential	58.1	54.0	59.5	1.4	60.3	54.0	61.2	0.9	67.5	60.0	68.2	0.7	3.0	NO
47	Residential	58.1	57.5	60.8	2.7	60.3	57.5	62.1	1.8	67.5	63.5	69.0	1.5	3.0	NO
48	Residential	58.1	54.4	59.6	1.5	60.3	54.4	61.3	1.0	67.5	60.4	68.3	0.8	3.0	NO
49	Residential	58.1	53.5	59.4	1.3	60.3	53.4	61.1	0.8	67.5	59.4	68.1	0.6	3.0	NO
49	Residential	58.1	60.5	62.5	4.4	60.3	60.5	63.4	3.1	67.5	66.5	70.0	2.5	3.0	NO
50	Residential	58.1	51.9	59.0	0.9	60.3	51.8	60.9	0.6	67.5	57.8	67.9	0.4	3.0	NO
51	Residential	58.1	52.1	59.1	1.0	60.3	52.0	60.9	0.6	67.5	58.0	68.0	0.5	3.0	NO
51	Residential	58.1	58.3	61.2	3.1	60.3	58.3	62.4	2.1	67.5	64.3	69.2	1.7	3.0	NO
52	Residential	58.1	51.3	58.9	0.8	60.3	51.3	60.8	0.5	67.5	57.3	67.9	0.4	3.0	NO
53	Residential	58.1	48.2	58.5	0.4	60.3	48.2	60.6	0.3	67.5	54.2	67.7	0.2	3.0	NO
53	Residential	58.1	56.9	60.6	2.5	60.3	56.9	61.9	1.6	67.5	62.9	68.8	1.3	3.0	NO
54	Residential	58.1	41.7	58.2	0.1	60.3	41.5	60.4	0.1	67.5	47.6	67.5	0.0	3.0	NO
54	Residential	58.1	49.1	58.6	0.5	60.3	48.9	60.6	0.3	67.5	54.9	67.7	0.2	3.0	NO
55	Residential	58.1	41.5	58.2	0.1	60.3	41.2	60.4	0.1	67.5	47.2	67.5	0.0	3.0	NO
55	Residential	58.1	48.3	58.5	0.4	60.3	48.1	60.6	0.3	67.5	54.2	67.7	0.2	3.0	NO

1. See Table 9 for ambient noise level data.

2. Incremental noise threshold per City of San José General Plan Policy EC-1.2, which establishes incremental noise standards of 5 dBA  $L_{dn}$  where noise levels would remain "Normally Acceptable" and 3 dBA  $L_{dn}$  where noise levels would equal or exceed the "Normally Acceptable" level for land uses sensitive to increased noise levels. Normally acceptable levels are 60 dBA  $L_{dn}$  for residential uses. Although the normally acceptable standard for industrial and commercial office uses is 70 dBA  $L_{dn}$ , it is not considered a land use sensitive to increased noise levels per Policy EC-1.2.

Source: SoundPLAN version 5.1. See Appendix A for noise modeling data and results.

### Landscape Maintenance Activities

Development and operation of the Project would also include landscaping that would require periodic maintenance. However, landscape maintenance activities would operate during daytime hours for brief periods of time as allowed by the City's Municipal Code and would not permanently increase ambient noise levels in the Project vicinity. The landscaping activities would be consistent with activities that currently occur on-site and would be in locations similar to the existing site. Due to the infrequent and intermittent nature of landscaping activities, this noise source was not included in the SoundPLAN model which is used to evaluate the Project's operational noise impacts in this analysis in compliance with General Plan Policy EC – 1.2. Because landscaping noise would not increase over existing conditions, the Project would result in a less than significant noise impact with regard to landscape maintenance activities.

### Trash/Recycling/Delivery Truck Noise

The proposed Project would involve weekly trash/recycling pickups and equipment deliveries from slow-moving trucks during normal daytime hours (i.e., from 7:00 a.m. to 10:00 p.m.). Trash/recycling pickup equipment deliveries would occur in the northeastern portion of the Project site at the proposed dock drive area. Low speed truck noise results from a combination of engine, exhaust, and tire noise as well as the intermittent sound from releases of compressed air associated with truck air brakes. It is noted that trash/recycling/delivery operations would be short-term and irregular. The closest sensitive receptor to the loading dock area is approximately 500 feet northeast across SR-85. At this distance, loading dock noise would reach 44 dBA  $L_{eq}$  without accounting for attenuating structures and would not result in any noise level increases at the sensitive receptor.<sup>26</sup> Therefore, this noise source was not included in the SoundPLAN model which is used to evaluate the Project's operation noise impacts in compliance with General Plan Policy EC – 1.2. The Project would result in a less than significant noise impact with regard to truck loading activity.

### *Town of Los Gatos Operational Noise Analysis*

The City of San José does not require the following information to determine the level of significance of Project impacts, but is provided in this analysis for informational purposes to help decision makers in their consideration of the proposed Project.

For sensitive receptors located in the Town of Los Gatos (i.e., residences to the west of the Project site along National Avenue), this report utilizes the noise standards in Los Gatos Municipal Code Section 16.20.015 to assess on-site operational noise impacts from the proposed Project. As indicated in Table 14, the Project's on-site operational noise levels would not be greater than 36 dBA  $L_{eq}$  at the nearest residential uses to the west located within the Town of Los Gatos. As such, noise levels from on-site operations at the Project site would not exceed the Town of Los Gatos most stringent nighttime noise standards of 51 dBA  $L_{eq}$  for residential uses in that area. The closest residential uses within in the Town of Los Gatos are located approximately 990 feet to the west of the Project site. On-site operational noise levels from the Project would range between 32 dBA  $L_{eq}$  and 36 dBA  $L_{eq}$  during the daytime, and between 31 dBA  $L_{eq}$  and 35 dBA  $L_{eq}$  during the nighttime hours at the nearest Town of Los Gatos residential uses.

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<sup>26</sup> Loading dock reference noise level measurements conducted by Kimley-Horn on December 18, 2018 and were measured at 64 dBA  $L_{eq}$  at 50 feet.



As such, the Project's on-site operational noise levels would not exceed the Town of Los Gatos' 55 dBA  $L_{eq}$  the standards listed in Municipal Code Section 16.20.015.

### *City of Campbell Operational Noise Analysis*

The City of San José does not require the following information to determine the level of significance of Project impacts, but is provided in this analysis for informational purposes to help decision makers in their consideration of the proposed Project.

For sensitive receptors located in the City of Campbell (i.e., residences northwest of the Project across Bascom Avenue), this report utilizes the noise standards in [Table 8](#) to assess on-site operational noise impacts from the proposed Project. As indicated in [Table 14](#), the Project's on-site operational noise levels would reach approximately 39 dBA  $L_{eq}$  at the closest residences in the City of Campbell. As such, noise levels from on-site operations at the Project site would not exceed the City of Campbell's nighttime noise standards of 45 dBA  $L_{eq}$  for residential uses.

### **Overlapping Construction and Operation Phasing**

The Project would be constructed in Phases which would result in overlaps between the construction and operation of portions of the Project. There are two overlaps that that would generate substantial noise in the surrounding environment (Phase 1 operation with Phase 2 construction and Phase 1 and 2 operations with Phase 3 construction) and are discussed further below.

#### *Phase 1 Operation and Phase 2 Construction*

Proceeding the completion of construction for Phase 1 of the Project, construction would begin on Phase 2. Construction of Phase 2 includes the demolition of the existing hospital building and the construction of surface parking to the south of the new hospital building. At the same time, operation of Phase 1 would commence and would include operational noise sources from the CUP, mechanical yard, parking garage east, and existing surface parking that is on the east and west portions of the Project site.

SoundPLAN was used to calculate the combined noise levels at the nearest sensitive receptors surrounding the Project site from Phase 1 operations and Phase 2 construction activities. It should be noted that predicted noise levels are conservative estimates since it was assumed that all equipment, operational activity, and construction activity at the Project site would occur in a simultaneous manner during the daytime hours. In reality, it is anticipated that most of these noise sources would occur intermittently throughout the day and night (except for rooftop HVAC and some CUP equipment which would operate in a steady-state manner). The loudest modeled noise levels from Phase 1 operations and Phase 2 construction would be approximately 69.5 dBA  $L_{dn}$  over a 24-hour period. The modeled noise level plus the ambient noise level of 67.5 dBA  $L_{dn}$ , would result in a combined noise level of 71.6 dBA  $L_{dn}$ . The Project would be required to implement a Noise Logistics Plan in accordance with MM NOI-1 which would reduce construction noise levels to the extent feasible. Phase 2 construction noise would be reduced through various noise reduction measures, which may include the prohibition of internal combustion engine idling and the installation of mufflers on all construction equipment, among others. With these noise reductions, combined Phase 1 operations and Phase 2 construction noise levels would be lower than the levels discussed above. Further, combined operational and construction noise levels would remain below the FTA's construction noise standards of 80 dBA  $L_{eq}$  at residential uses and 85 dBA  $L_{eq}$  at commercial uses.

Conservatively, the combined noise impact of Phase 1 operation and Phase 2 construction is evaluated to the General Plan Policy EC-1.1 or the land use compatibility guidelines. According to **Table 4**, residential, hospitals, and residential care facilities can be exposed to exterior noise levels of 75 dBA  $L_{dn}$  after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design. As discussed above, the combined noise level of Phase 1 operations and Phase 2 construction would be 71.6 dBA  $L_{dn}$ . While EC-1.1 is not typically used to analyze construction noise, in this scenario the thresholds were used to evaluate the overlap of operational and construction phases. Once construction ends, the noise levels would be in the normally acceptable range.

#### *Phase 1 Operation, Phase 2 Operation, and Phase 3 Construction*

Construction would begin on Phase 3 once Phase 2 has completed construction. Construction of Phase 3 includes the demolition of the existing parking lot to the west and the construction of surface parking to the south of the new hospital building, parking garage west, a medical office building, and hospital building extensions. During Phase 3 construction, operation of Phase 1 would continue, and operation of Phase 2 would commence. Operational noise sources from the Project during this period would from the HVAC from the new hospital building, the CUP, mechanical yard, parking garage east, and the existing surface parking that is south and east of the new hospital building.

SoundPLAN was used to calculate the combined noise levels at the nearest sensitive receptors surrounding the Project site from Phase 1 and 2 operations and Phase 3 construction activities. As mentioned previously, it should be noted that predicted noise levels are conservative estimates since it was assumed that all equipment, operational activity, and construction activity at the Project site would occur in a simultaneous manner during the daytime hours. In reality, it is anticipated that most of these noise sources would occur intermittently throughout the day and night (except for rooftop HVAC and some CUP equipment which would operate in a steady-state manner). The loudest modeled noise level from Phase 1 and 2 operation and Phase 3 construction would be approximately 76.6 dBA  $L_{dn}$  over a 24-hour period during Phase 3 construction paving. The modeled noise level plus the ambient noise level of 67.5 dBA  $L_{dn}$  would result in a combined noise level of 77.1 dBA  $L_{dn}$ . Thus, the combined noise impact of Phase 1 and 2 operations and Phase 3 construction would result in a noise level increase above the conditionally acceptable exterior noise exposure level of 75 dBA  $L_{dn}$  per **Table 4** and EC-1.1.

As mentioned above, the Project would be required to implement a construction noise logistics plan prior to each construction phase in accordance with MM NOI-1 which would reduce construction noise levels to the extent feasible. Further, to reduce noise levels for work during Phase 3 construction occurring adjacent to residences, or other noise-sensitive land uses, MM NOI-2 requires a noise barrier(s) on the south, southeastern, and eastern edge of the work site facing the receptor(s). Following implementation of MM NOI-1 and MM NOI-2, the combined noise levels from Phase 1 and 2 operations and Phase 3 construction would reduce to 74.0 dBA  $L_{dn}$ . This would result in noise levels below the conditionally acceptable exterior noise exposure level of 75 dBA  $L_{dn}$  per **Table 4** and EC-1.1. Therefore, the combined noise impact from Phase 1 and 2 operations and Phase 3 construction would be less than significant with implementation of MM NOI-1 and MM NOI-2.

#### **Mitigation Measures:**

**MM NOI-1**      **Construction Noise Logistics Plan** (See description above)

**MM NOI-2 Noise Barriers** (See description above)

**MM NOI-3 Nighttime Construction** (See description above)

**Level of Significance:** Project construction noise would be less than significant with mitigation. Project operations noise would be less than significant. Overlapping combined noise would be less than significant with mitigation.

#### **Threshold 6.2 Would the Project generate excessive groundborne vibration or groundborne noise levels?**

##### **Construction Vibration**

Increases in groundborne vibration levels attributable to the Project would be primarily associated with construction-related activities. Construction on the Project site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

The FTA has published standard vibration velocities for construction equipment operations. In general, depending on the building category of the nearest buildings adjacent to the potential pile driving area, the potential construction vibration damage criteria vary. For example, for a building constructed with reinforced concrete with no plaster, the FTA guidelines show that a vibration level of up to 0.50 in/sec PPV is considered safe and would not result in any construction vibration damage. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.2 in/sec) appears to be conservative. The types of construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on soil composition and underground geological layer between vibration source and receiver.

Table 21: Typical Construction Equipment Vibration Noise Levels, lists vibration levels at 25 feet, 50 feet, and 100 feet for typical construction equipment. Groundborne vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. As indicated in [Table 21](#), based on FTA data, vibration velocities from typical heavy construction equipment operations that would be used during Project construction range from 0.0008 to 0.0239 in/sec PPV at 45 feet from the source of activity. The nearest sensitive receptor is approximately 45 feet from the active construction zone and would not experience perceptible vibration levels. Impact pile driving would be required during construction of the CUP in Phase 1 of the Project. The closest sensitive receptor to the CUP is located approximately 300 feet away.

**Table 21: Typical Construction Equipment Vibration Noise Levels**

Equipment	Peak Particle Velocity At 25 feet (in/sec)	Peak Particle Velocity At 45 feet (in/sec) <sup>1</sup>	Peak Particle Velocity At 300 feet (in/sec) <sup>1</sup>
Impact Pile Driving	-	-	0.037
Large Bulldozer	0.089	0.037	0.002
Loaded Trucks	0.076	0.032	0.002
Rock Breaker	0.059	0.024	0.001
Jackhammer	0.035	0.015	0.001
Small Bulldozer/Tractors	0.003	0.001	0.000
1. Calculated using the following formula: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$ , where: $PPV_{equip}$ = the peak particle velocity in in/sec of the equipment adjusted for the distance; $PPV_{ref}$ = the reference vibration level in in/sec from Table 7-4 of the Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, 2018; D = the distance from the equipment to the receiver.			
Source: Federal Transit Administration, <i>Transit Noise and Vibration Impact Assessment Manual</i> , September 2018.			

As shown in Table 21, the highest vibration levels are achieved with the large bulldozer operations at the receptors located 45 feet away and pile driving at receptors 300 feet away. This construction activity is expected to take place during grading and Phase 1 building construction respectively. Additionally, per General Plan Policy EC-2.3, continuous vibration limits shall not exceed 0.08 PPV for sensitive historical structures and 0.20 PPV for normal conventional construction.<sup>27</sup> In general, other construction activities would occur throughout the Project site and would not be concentrated at the point closest to the nearest structure. Therefore, vibration impacts associated with the construction of the Project would be less than significant.

### **Operational Vibration**

Once operational, the Project would not be a significant source of groundborne vibration. Groundborne vibration surrounding the Project currently result from heavy-duty vehicular travel (e.g., refuse trucks, heavy duty trucks, delivery trucks, and transit buses) on the nearby local roadways. Operations of the proposed Project would include activities associated with a hospital (i.e., parking, trash/recycling pickup, etc.) that typically would not cause excessive ground-borne vibrations. Due to the rapid drop-off rate of ground-borne vibration and the short duration of the associated events, vehicular traffic-induced ground-borne vibration is rarely perceptible beyond the roadway right-of-way, and rarely results in vibration levels that cause damage to buildings in the vicinity. According to the FTA's Transit Noise and Vibration Impact Assessment, trucks rarely create vibration levels that exceed 70 VdB (equivalent to 0.012 in/sec PPV) when they are on roadways. Therefore, trucks operating at the Project site or along surrounding roadways would not exceed FTA thresholds or General Plan Policy EC-2.3 for building damage or annoyance. Impacts would be less than significant in this regard.

**Mitigation Measures:** No mitigation is required.

**Level of Significance:** Less than significant impact.

**Threshold 6.3** 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, would the Project expose people residing or working in the Project area to excessive noise levels?

<sup>27</sup> It should be noted that there are no historical structures in the Project area and therefore the City's 0.08 PPV continuous vibration standard does not apply.



The nearest airport to the Project site is the Norman Y. Mineta San José International Airport located approximately 5.6 miles northeast of the Project site. The Project site lies outside of the 65 dBA CNEL noise contours shown in the Norman Y. Mineta San José International Airport Master Plan Update Project report published in October 2019.<sup>28</sup> Although aircraft-related noise would occasionally be audible at the Project site, noise from aircraft would not substantially increase ambient noise levels. Exterior noise levels resulting from aircraft would be compatible with the proposed Project. By ensuring compliance with the building code requirements for window assemblies, interior noise levels would also be considered acceptable with aircraft noise. Therefore, the Project would not expose people residing or working in the Project area to excessive airport- or airstrip-related noise levels and no mitigation is required.

**Mitigation Measures:** No mitigation is required.

**Level of Significance:** Less than significant impact.

## 6.2 CUMULATIVE NOISE IMPACTS

Noise by definition is a localized phenomenon, and drastically reduces as distance from the source increases. Cumulative noise impacts involve development of the Project in combination with ambient growth and other related development projects. As noise levels decrease as distance from the source increases, only projects in the nearby area could combine with the Project to potentially result in cumulative noise impacts. The geographic context for cumulative noise and vibration construction impacts encompasses sensitive receptors within approximately 1,000 feet of the project site. Beyond 1,000 feet, the construction noise from cumulative projects would be greatly attenuated by both distance and intervening structures.

### Cumulative Construction Noise

Per San José Municipal Code Section 20.100.450, the City permits construction hours within 500 feet of a residential unit when limited to the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday, unless otherwise allowed in a Development Permit or other planning approval. The Project would receive a development permit that allows for construction to occur within 500 feet of residences, occur 6 days a week, and have nighttime construction. The Project would potentially contribute to other proximate construction noise impacts if construction activities were conducted concurrently. Samaritan Medical Campus Development Plan would be within the geographic scope for noise and vibration impacts. However, based on the environmental document prepared, no more than two buildings would undergo heavy construction simultaneously and mitigation measures are included to reduce construction noise (MM NOI-1.1 through MM NOI-1.3 in the 2016 Original and subsequent two Addendum EIRs for the Samaritan Medical Center Master Plan EIR). While the environmental document found a significant and unavoidable construction impact, it concluded a less than significant cumulative impact. Based on the proposed Project's noise analysis above, the Project's construction-related noise impacts would be less than significant when overlapping with Project operations, when following implementation of best management practices, mitigation measures, compliance with General Plan Policy EC-1.7 and Municipal Code. Therefore, there may be a cumulative impact in construction noise levels if the two projects were constructed concurrently. As stated in the CEQA Guidelines section 15064(h)(4), "The mere existence of cumulative impacts caused by other projects alone shall not constitute substantial evidence that the

<sup>28</sup> City of San José, *Norman Y. Mineta San José International Airport Master Plan Update, Noise Assessment for the Master Plan Environmental Impact Report*, October 2019.

proposed project's incremental effects are cumulatively considerable." Therefore, the cumulative impacts analysis in an EIR should not discuss impacts which do not result in part from the project evaluated in the EIR. Therefore, the proposed Project's incremental effects would not result in a cumulatively considerable contribution.

The Samaritan Medical Campus Development Plan EIR (2016) identified a maximum construction noise level of 76 dBA  $L_{eq}$  at the closest receptor to the south along Lost Oaks Drive. Noise Levels from the proposed Project would be approximately 67.6 dBA at this receptor with MM NOI-1. As the Project's construction noise levels are more than 8 dBA lower than the cumulative project noise levels, it would increase noise levels at this receptor by 1 dBA.<sup>29</sup> Less than 3 dBA is considered not perceptible to humans. Therefore, the Project construction noise would not cumulatively contribute to the related cumulative project's noise levels. In addition, construction activities at other planned and approved projects would be required to take place during daytime hours unless an exemption was approved, and the City and project applicants would be required to evaluate construction noise impacts and implement mitigation, if necessary, to minimize noise impacts. Each project in the City would be required to comply with the applicable City of San José Municipal Code limitations on allowable hours of construction.

Due to such requirements and the distance between cumulative projects, construction noise from the Project and other projects would not create a significant cumulative noise impact.

### **Cumulative Operational Noise**

Cumulative noise impacts describe how much noise levels are projected to increase over existing conditions with the development of the Project and other past, present, and foreseeable projects. Cumulative noise impacts would occur primarily as a result of increased traffic on local roadways due to buildout of the Project and other projects in the vicinity. However, noise from generators and other stationary sources could also generate cumulative noise levels.

### **Stationary Noise**

As discussed above, impacts from the Project's operations would be less than significant. Due to site distance, intervening land uses, and the fact that noise dissipates as it travels away from its source, noise impacts from on-site activities and other stationary sources would be limited to the Project vicinity which would not change significantly over existing conditions. There is Samaritan Medical Center Master Plan development that was planned west of the Project site that would generate stationary noise that would compound with the operational noise levels generated by the Project.<sup>30</sup> However, due to the distance between the commercial development and the sensitive receptors, the presence of noise attenuating structures in the surrounding area, and that existing medical uses already exist on-site, cumulative noise would not reach levels that exceed the City's Land Use Compatibility Guidelines at nearby sensitive receptors. Furthermore, each project would comply with applicable San José General Plan noise regulations and would maintain their generated stationary noise levels at an acceptable level for nearby uses. Thus, cumulative operational noise impacts from related projects, in conjunction with Project-specific noise impacts, would not be cumulatively significant.

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<sup>29</sup> Per the California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol (2013), adding two noise levels that differ by 4-9 dB result in a 1 dBA (less than barely noticeable increase).

<sup>30</sup> City of San José, *Samaritan Medical Center Master Plan Draft EIR*, May 2016. Accessed at <https://www.sanjoseca.gov/home/showpublisheddocument/87814/637932439397900000>

### Traffic Noise

Cumulative traffic accounts for 20 planned, proposed, and approved projects in the surrounding area. A project's contribution to a cumulative traffic noise increase would be considered significant when the combined effect exceeds perception level (i.e., auditory level increase) threshold. Cumulative increases in traffic noise levels were estimated by comparing the Existing Plus Project and Cumulative scenarios to Existing Conditions.

The following criteria is used to evaluate the combined effect of the cumulative noise increase.

- **Combined Effect.** The cumulative with Project noise level ("Cumulative Year With Project") would cause a significant cumulative impact if a 3.0 dB increase over "Existing" conditions occurs and the resulting noise level exceeds the applicable exterior standard at a sensitive use. Although there may be a significant noise increase due to the Project in combination with other related projects (combined effects), it must also be demonstrated that the Project has an incremental effect. In other words, a cumulatively significant portion of the noise increase must be due to the Project.

The following criteria have been used to evaluate the incremental effect of the cumulative noise increase.

- **Incremental Effects.** The "Cumulative Year With Project" causes a 1.0 dBA increase in noise over the "Cumulative Without Project" noise level.

A significant impact would result only if both the combined and incremental effects criteria have been exceeded. Noise by definition is a localized phenomenon and reduces as distance from the source increases. Consequently, only the Project and growth due to occur in the general area would contribute to cumulative noise impacts.

Table 22: Cumulative Plus Project Conditions Predicted Traffic Noise Levels identifies the traffic noise effects along roadway segments in the vicinity of the Project site for "Existing," "Cumulative Year Without Project," and "Cumulative Year With Project," conditions, including incremental and net cumulative impacts.

First, it must be determined whether the "Cumulative Year With Project" increase above existing conditions (Combined Effects) is exceeded. As indicated in Table 22, the Project has no street segments that exceed both the Combined Effects criteria and the Incremental Effects criteria for any roadway segment analyzed.

**Table 22: Cumulative Plus Project Conditions Predicted Traffic Noise Levels**

Roadway Segment	Existing <sup>1</sup> (L <sub>dn</sub> )	Cumulative Year Without Project <sup>1</sup> (L <sub>dn</sub> )	Cumulative Year With Project <sup>1</sup> (L <sub>dn</sub> )	Combined Effects	Incremental Effects	Cumulatively Considerable Contributor to a Cumulatively Significant Impact?
				dBA Difference: Existing and Cumulative Year With Project	dBA Difference: Cumulative Year Without and With Project	
Bascom Avenue						

Roadway Segment	Existing <sup>1</sup> (L <sub>dn</sub> )	Cumulative Year Without Project <sup>1</sup> (L <sub>dn</sub> )	Cumulative Year With Project <sup>1</sup> (L <sub>dn</sub> )	Combined Effects	Incremental Effects	Cumulatively Considerable Contributor to a Cumulatively Significant Impact?
				dBA Difference: Existing and Cumulative Year With Project	dBA Difference: Cumulative Year Without and With Project	
North of East Mozart Avenue	67.2	67.7	68.0	0.8	0.3	No
South of East Mozart Avenue	67.3	67.7	68.0	0.7	0.3	No
South of Samaritan Drive	66.8	67.8	68.1	1.3	0.3	No
South of White Oaks Avenue	67.0	67.6	67.9	0.9	0.3	No
North of SR-85 North Ramps	67.1	67.7	68.0	0.9	0.3	No
South of SR-85 North Ramps	67.4	68.3	68.7	1.3	0.4	No
South of 85-South Ramp	67.8	69.0	69.4	1.6	0.4	No
<b>Samaritan Drive</b>						
East of National Avenue	63.2	64.5	65.5	2.3	1.0	No
East of Samaritan Court	61.7	63.0	64.4	2.7	1.4	No
West of Samaritan Court	60.4	61.9	63.3	3.0	1.4	No <sup>2</sup>
East of Kinghurst Drive	61.6	62.7	64.3	2.7	1.6	No
West of Union Avenue	64.4	65.0	65.7	1.3	0.7	No
East of Bascom Avenue	63.5	64.7	65.7	2.2	1.0	No
West of Bascom Avenue	53.2	58.2	58.2	5.0	0.0	No
East of Samaritan Place	62.2	63.2	64.3	2.1	1.1	No
West of Samaritan Place	61.7	62.6	63.8	2.1	1.2	No
East of SR 85 South Off Ramp	64.5	65.2	65.9	1.4	0.7	No
West of SR-85 South Ramp	62.8	63.7	64.7	1.9	1.0	No
<b>Samaritan Place</b>						
North of Samaritan Drive	47.4	47.4	49.5	2.1	2.1	No
<b>Union Avenue</b>						
South of Camden Avenue	64.9	65.5	65.6	0.7	0.1	No
North of SR-85 North Ramp	66.1	66.4	66.5	0.4	0.1	No
South of SR-85 North Ramp	66.7	67.0	67.3	0.6	0.3	No
South of SR-85 South Ramp	66.1	66.2	66.4	0.3	0.2	No
North of Los Gatos-Almaden Road	64.8	65.0	65.2	0.4	0.2	No
<b>Los Gatos Boulevard</b>						

Roadway Segment	Existing <sup>1</sup> (L <sub>dn</sub> )	Cumulative Year Without Project <sup>1</sup> (L <sub>dn</sub> )	Cumulative Year With Project <sup>1</sup> (L <sub>dn</sub> )	Combined Effects	Incremental Effects	Cumulatively Considerable Contributor to a Cumulatively Significant Impact?
				dBA Difference: Existing and Cumulative Year With Project	dBA Difference: Cumulative Year Without and With Project	
North of Walker Street	65.5	66.3	66.6	1.1	0.3	No
South of Walker Street	65.5	66.6	66.9	1.4	0.3	No
North of Lark Avenue	64.6	66.2	66.2	1.6	0.0	No
South of Lark Avenue	65.4	66.3	66.3	0.9	0.0	No
<b>Lark Avenue</b>						
West of Los Gatos Boulevard	63.6	64.5	64.5	0.9	0.0	No
East of SR-17 East Ramp	66.5	67.1	67.2	0.7	0.1	No
ADT = average daily trips; dBA = A-weighted decibels; L <sub>dn</sub> = day-night noise level						
1. Traffic noise levels are at 100 feet from the roadway centerline. 2. The noise level is 2.96 dBA L <sub>dn</sub> but is shown as 3 dBA L <sub>dn</sub> due to rounding. The segment would have a traffic noise increase below 3 dBA L <sub>dn</sub> . Further, uses surrounding the roadway segment are medical office buildings and the resulting noise level would be below the 70 dBA L <sub>dn</sub> normally acceptable level for office buildings.						
Source: Based on traffic data provided by Kimley-Horn, 2023. Refer to <a href="#">Appendix A</a> for traffic noise modeling assumptions and results.						

As indicated in the table, one segment would exceed the combined effects criterion (Samaritan Drive west of Bascom Avenue). However, this segment would not exceed the 1 dB incremental effects criterion. Additionally, multiple roadway segments exceed the incremental effects criteria. However, none of the roadway segments exceed both the Combined and Incremental Effects Criterion. The Project would not result in long-term mobile noise impacts based on Project-generated traffic as well as cumulative and incremental noise levels. Therefore, the Project, in combination with cumulative background traffic noise levels, would result in a less than significant cumulative impact. The Project's contribution to noise levels would not be cumulatively considerable.



## 7 REFERENCES

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9. Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, *Noise Navigator Sound Level Database with Over 1700 Measurement Values*, July 6, 2010.
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18. Town of Los Gatos, *General Plan Environment and Sustainability Element*, 2022.
19. Town of Los Gatos, *Municipal Code*, 2023
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21. United States Environmental Protection Agency, *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*, 1971.

# Appendix A

## Noise Data

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## Noise Measurement Field Data

<b>Project:</b>	Good Samaritan Hospital	<b>Job Number:</b>	194091003
<b>Site No.:</b>	ST-1	<b>Date:</b>	2/17/2023
<b>Analyst:</b>	Tanay Pradhan	<b>Time:</b>	9:27 AM
<b>Location:</b>	Samaritan Place by the Apartments		
<b>Noise Sources:</b>	Traffic on Samaritan Place, Pedestrian Traffic		
<b>Comments:</b>			

### Results (dBA):

	<b>Leq:</b>	<b>Lmin:</b>	<b>Lmax:</b>	<b>Peak:</b>
Measurement 1:	58.1	52.8	75.2	103.2

### Equipment

<b>Sound Level Meter:</b>	LD SoundExpert LxT
<b>Calibrator:</b>	CAL200
<b>Response Time:</b>	Slow
<b>Weighting:</b>	A
<b>Microphone Height:</b>	5 feet

### Weather

<b>Temp. (degrees F):</b>	61
<b>Wind (mph):</b>	15
<b>Sky:</b>	Clear
<b>Bar. Pressure:</b>	29.85
<b>Humidity:</b>	53%

### Photo:



# Measurement Report

## Report Summary

Meter's File Name	LxT_Data.007.s	Computer's File Name	LxTse_0006073-20230217 092751-LxT_Data.007.ldbin
Meter	LxT SE 0006073	Firmware	2.404
User		Location	
Job Description			
Note			
Start Time	2023-02-17 09:27:51	Duration	0:10:00.0
End Time	2023-02-17 09:37:51	Run Time	0:10:00.0
Pre-Calibration	2023-01-27 09:59:16	Post-Calibration	None
		Pause Time	0:00:00.0
		Calibration Deviation	---

## Results

### Overall Metrics

LA <sub>eq</sub>	58.1 dB		
LAE	85.9 dB	SEA	--- dB
EA	43.0 $\mu$ Pa <sup>2</sup> h		
LZ <sub>peak</sub>	103.2 dB	2023-02-17 09:28:01	
LAS <sub>max</sub>	75.2 dB	2023-02-17 09:31:10	
LAS <sub>min</sub>	52.8 dB	2023-02-17 09:32:29	
LA <sub>eq</sub>	58.1 dB		
LC <sub>eq</sub>	67.1 dB	LC <sub>eq</sub> - LA <sub>eq</sub>	9.0 dB
LAI <sub>eq</sub>	60.7 dB	LAI <sub>eq</sub> - LA <sub>eq</sub>	2.6 dB

### Exceedances

#### Count Duration

LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 135.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 137.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 140.0 dB	0	0:00:00.0

### Community Noise

LDN	LDay	LNight	
58.1 dB	58.1 dB	0.0 dB	
LDEN	LDay	LEve	LNight
58.1 dB	58.1 dB	--- dB	--- dB

### Any Data

	Level	A Time Stamp	Level	C Time Stamp	Level	Z Time Stamp
L <sub>eq</sub>	58.1 dB		67.1 dB		--- dB	
LS <sub>(max)</sub>	75.2 dB	2023-02-17 09:31:10	--- dB	None	--- dB	None
LS <sub>(min)</sub>	52.8 dB	2023-02-17 09:32:29	--- dB	None	--- dB	None
L <sub>Peak(max)</sub>	--- dB	None	--- dB	None	103.2 dB	2023-02-17 09:28:01

### Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	18	0:01:03.2

### Statistics

LAS 5.0	60.5 dB
LAS 10.0	59.8 dB
LAS 33.3	58.3 dB
LAS 50.0	57.6 dB
LAS 66.6	56.0 dB
LAS 90.0	54.2 dB

## Noise Measurement Field Data

<b>Project:</b>	Good Samaritan Hospital	<b>Job Number:</b>	194091003
<b>Site No.:</b>	ST-2	<b>Date:</b>	2/17/2023
<b>Analyst:</b>	Tanay Pradhan	<b>Time:</b>	9:48 AM
<b>Location:</b>	Parking Lot South of the hospital across Samartian Drive		
<b>Noise Sources:</b>	Parking Lot Noise, Sirens		
<b>Comments:</b>	Landscape Maintenance Activities began occuring for a short duration		

### Results (dBA):

	<b>Leq:</b>	<b>Lmin:</b>	<b>Lmax:</b>	<b>Peak:</b>
Measurement 1:	58.6	50.1	69.3	106.4

### Equipment

<b>Sound Level Meter:</b>	LD SoundExpert LxT
<b>Calibrator:</b>	CAL200
<b>Response Time:</b>	Slow
<b>Weighting:</b>	A
<b>Microphone Height:</b>	5 feet

### Weather

<b>Temp. (degrees F):</b>	58
<b>Wind (mph):</b>	17
<b>Sky:</b>	Clear
<b>Bar. Pressure:</b>	29.84
<b>Humidity:</b>	58%

Photo:





# Measurement Report

## Report Summary

Meter's File Name	LxT_Data.008.s	Computer's File Name	LxTse_0006073-20230217 094819-LxT_Data.008.ldbin
Meter	LxT SE 0006073	Firmware	2.404
User		Location	
Job Description			
Note			
Start Time	2023-02-17 09:48:19	Duration	0:10:00.0
End Time	2023-02-17 09:58:19	Run Time	0:10:00.0
Pre-Calibration	2023-01-27 09:59:16	Post-Calibration	None
		Pause Time	0:00:00.0
		Calibration Deviation	---

## Results

### Overall Metrics

LA <sub>eq</sub>	58.6 dB		
LAE	86.4 dB	SEA	--- dB
EA	48.3 $\mu\text{Pa}^2\text{h}$		
LZ <sub>peak</sub>	106.4 dB	2023-02-17 09:51:25	
LAS <sub>max</sub>	69.3 dB	2023-02-17 09:49:03	
LAS <sub>min</sub>	50.1 dB	2023-02-17 09:51:58	
LA <sub>eq</sub>	58.6 dB		
LC <sub>eq</sub>	69.4 dB	LC <sub>eq</sub> - LA <sub>eq</sub>	10.8 dB
LAI <sub>eq</sub>	61.3 dB	LAI <sub>eq</sub> - LA <sub>eq</sub>	2.7 dB

### Exceedances

#### Count Duration

LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 135.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 137.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 140.0 dB	0	0:00:00.0

### Community Noise

LDN	LDay	LNight	
58.6 dB	58.6 dB	0.0 dB	
LDEN	LDay	LEve	LNight
58.6 dB	58.6 dB	--- dB	--- dB

### Any Data

	Level	A Time Stamp	Level	C Time Stamp	Level	Z Time Stamp
L <sub>eq</sub>	58.6 dB		69.4 dB		--- dB	
LS <sub>(max)</sub>	69.3 dB	2023-02-17 09:49:03	--- dB	None	--- dB	None
LS <sub>(min)</sub>	50.1 dB	2023-02-17 09:51:58	--- dB	None	--- dB	None
L <sub>Peak(max)</sub>	--- dB	None	--- dB	None	106.4 dB	2023-02-17 09:51:25

### Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	12	0:00:31.2

### Statistics

LAS 5.0	65.0 dB
LAS 10.0	62.5 dB
LAS 33.3	56.9 dB
LAS 50.0	55.1 dB
LAS 66.6	54.0 dB
LAS 90.0	52.2 dB

## Noise Measurement Field Data

<b>Project:</b>	Good Samaritan Hospital	<b>Job Number:</b>	194091003
<b>Site No.:</b>	ST-3	<b>Date:</b>	2/17/2023
<b>Analyst:</b>	Tanay Pradhan	<b>Time:</b>	10:33 AM
<b>Location:</b>	West of the Hosptial in the Parking Lot		
<b>Noise Sources:</b>	Parking Lot Noise		
<b>Comments:</b>			

### Results (dBA):

	<b>Leq:</b>	<b>Lmin:</b>	<b>Lmax:</b>	<b>Peak:</b>
Measurement 1:	56.7	53.4	68.3	104.7

### Equipment

<b>Sound Level Meter:</b>	LD SoundExpert LxT
<b>Calibrator:</b>	CAL200
<b>Response Time:</b>	Slow
<b>Weighting:</b>	A
<b>Microphone Height:</b>	5 feet

### Weather

<b>Temp. (degrees F):</b>	63
<b>Wind (mph):</b>	18
<b>Sky:</b>	Clear
<b>Bar. Pressure:</b>	29.83
<b>Humidity:</b>	46%

Photo:



# Measurement Report

## Report Summary

Meter's File Name	LxT_Data.011.s	Computer's File Name	LxTse_0006073-20230217 103359-LxT_Data.011.ldbin
Meter	LxT SE 0006073	Firmware	2.404
User		Location	
Job Description			
Note			
Start Time	2023-02-17 10:33:59	Duration	0:10:00.0
End Time	2023-02-17 10:43:59	Run Time	0:10:00.0
Pre-Calibration	2023-01-27 09:59:16	Post-Calibration	None
		Pause Time	0:00:00.0
		Calibration Deviation	---

## Results

### Overall Metrics

LA <sub>eq</sub>	56.7 dB		
LAE	84.5 dB	SEA	--- dB
EA	31.2 $\mu\text{Pa}^2\text{h}$		
LZ <sub>peak</sub>	104.7 dB	2023-02-17 10:37:35	
LAS <sub>max</sub>	68.3 dB	2023-02-17 10:43:30	
LAS <sub>min</sub>	53.4 dB	2023-02-17 10:43:45	
LA <sub>eq</sub>	56.7 dB		
LC <sub>eq</sub>	68.3 dB	LC <sub>eq</sub> - LA <sub>eq</sub>	11.6 dB
LAI <sub>eq</sub>	58.0 dB	LAI <sub>eq</sub> - LA <sub>eq</sub>	1.3 dB

### Exceedances

#### Count Duration

LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 135.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 137.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 140.0 dB	0	0:00:00.0

### Community Noise

LDN	LDay	LNight	
56.7 dB	56.7 dB	0.0 dB	
LDEN	LDay	LEve	LNight
56.7 dB	56.7 dB	--- dB	--- dB

### Any Data

	Level	A Time Stamp	Level	C Time Stamp	Level	Z Time Stamp
L <sub>eq</sub>	56.7 dB		68.3 dB		--- dB	
LS <sub>(max)</sub>	68.3 dB	2023-02-17 10:43:30	--- dB	None	--- dB	None
LS <sub>(min)</sub>	53.4 dB	2023-02-17 10:43:45	--- dB	None	--- dB	None
L <sub>Peak(max)</sub>	--- dB	None	--- dB	None	104.7 dB	2023-02-17 10:37:35

### Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	18	0:01:25.6

### Statistics

LAS 5.0	58.2 dB
LAS 10.0	57.8 dB
LAS 33.3	56.8 dB
LAS 50.0	56.4 dB
LAS 66.6	55.8 dB
LAS 90.0	54.8 dB

## Noise Measurement Field Data

<b>Project:</b>	Good Samaritan Hospital	<b>Job Number:</b>	194091003
<b>Site No.:</b>	ST-4	<b>Date:</b>	2/17/2023
<b>Analyst:</b>	Tanay Pradhan	<b>Time:</b>	10:58 AM
<b>Location:</b>	Samartian Drive near the East Parking Lot Entrance		
<b>Noise Sources:</b>	Traffic on Samartian Drive, Parking Lot Noise, Pedestrian Traffic		
<b>Comments:</b>			

### Results (dBA):

	<b>Leq:</b>	<b>Lmin:</b>	<b>Lmax:</b>	<b>Peak:</b>
Measurement 1:	63.0	54.5	73.2	115.0

### Equipment

<b>Sound Level Meter:</b>	LD SoundExpert LxT
<b>Calibrator:</b>	CAL200
<b>Response Time:</b>	Slow
<b>Weighting:</b>	A
<b>Microphone Height:</b>	5 feet

### Weather

<b>Temp. (degrees F):</b>	63
<b>Wind (mph):</b>	18
<b>Sky:</b>	Clear
<b>Bar. Pressure:</b>	29.83
<b>Humidity:</b>	46%

Photo:



# Measurement Report

## Report Summary

Meter's File Name	LxT_Data.012.s	Computer's File Name	LxTse_0006073-20230217 105823-LxT_Data.012.ldbin
Meter	LxT SE 0006073	Firmware	2.404
User		Location	
Job Description			
Note			
Start Time	2023-02-17 10:58:23	Duration	0:10:00.0
End Time	2023-02-17 11:08:23	Run Time	0:10:00.0
Pre-Calibration	2023-01-27 09:59:16	Post-Calibration	None
		Pause Time	0:00:00.0
		Calibration Deviation	---

## Results

### Overall Metrics

LA <sub>eq</sub>	63.0 dB		
LAE	90.8 dB	SEA	--- dB
EA	133.0 $\mu\text{Pa}^2\text{h}$		
LZ <sub>peak</sub>	115.0 dB	2023-02-17 11:03:02	
LAS <sub>max</sub>	73.2 dB	2023-02-17 11:07:55	
LAS <sub>min</sub>	54.5 dB	2023-02-17 11:05:11	
LA <sub>eq</sub>	63.0 dB		
LC <sub>eq</sub>	74.3 dB	LC <sub>eq</sub> - LA <sub>eq</sub>	11.3 dB
LAI <sub>eq</sub>	64.6 dB	LAI <sub>eq</sub> - LA <sub>eq</sub>	1.6 dB

### Exceedances

#### Count Duration

LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 135.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 137.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 140.0 dB	0	0:00:00.0

### Community Noise

LDN	LDay	LNight	
63.0 dB	63.0 dB	0.0 dB	
LDEN	LDay	LEve	LNight
63.0 dB	63.0 dB	--- dB	--- dB

### Any Data

	Level	A Time Stamp	Level	C Time Stamp	Level	Z Time Stamp
L <sub>eq</sub>	63.0 dB		74.3 dB		--- dB	
LS <sub>(max)</sub>	73.2 dB	2023-02-17 11:07:55	--- dB	None	--- dB	None
LS <sub>(min)</sub>	54.5 dB	2023-02-17 11:05:11	--- dB	None	--- dB	None
L <sub>Peak(max)</sub>	--- dB	None	--- dB	None	115.0 dB	2023-02-17 11:03:02

### Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	34	0:05:52.6

### Statistics

LAS 5.0	67.4 dB
LAS 10.0	66.3 dB
LAS 33.3	63.6 dB
LAS 50.0	61.2 dB
LAS 66.6	58.8 dB
LAS 90.0	56.1 dB



## Noise Measurement Field Data

<b>Project:</b>	Good Samaritan Hospital	<b>Job Number:</b>	194091003
<b>Site No.:</b>	ST-5	<b>Date:</b>	2/17/2023
<b>Analyst:</b>	Tanay Pradhan	<b>Time:</b>	10:05 AM
<b>Location:</b>	Intersection between Samartian Court and Samaritan Drive		
<b>Noise Sources:</b>	Traffic on Samaritan Drive and Samaritan Court, Sirens, Pedestrian Traffic		
<b>Comments:</b>			

### Results (dBA):

	<b>Leq:</b>	<b>Lmin:</b>	<b>Lmax:</b>	<b>Peak:</b>
Measurement 1:	61.5	53.9	71.1	97.8

### Equipment

<b>Sound Level Meter:</b>	LD SoundExpert LxT
<b>Calibrator:</b>	CAL200
<b>Response Time:</b>	Slow
<b>Weighting:</b>	A
<b>Microphone Height:</b>	5 feet

### Weather

<b>Temp. (degrees F):</b>	58
<b>Wind (mph):</b>	19
<b>Sky:</b>	Clear
<b>Bar. Pressure:</b>	29.83
<b>Humidity:</b>	56%

### Photo:



# Measurement Report

## Report Summary

Meter's File Name	LxT_Data.009.s	Computer's File Name	LxTse_0006073-20230217 100521-LxT_Data.009.ldbin
Meter	LxT SE 0006073	Firmware	2.404
User		Location	
Job Description			
Note			
Start Time	2023-02-17 10:05:21	Duration	0:10:00.0
End Time	2023-02-17 10:15:21	Run Time	0:10:00.0
Pre-Calibration	2023-01-27 09:59:16	Post-Calibration	None
		Pause Time	0:00:00.0
		Calibration Deviation	---

## Results

### Overall Metrics

LA <sub>eq</sub>	61.5 dB		
LAE	89.3 dB	SEA	--- dB
EA	94.2 $\mu$ Pa <sup>2</sup> h		
LZ <sub>peak</sub>	97.8 dB	2023-02-17 10:14:05	
LAS <sub>max</sub>	71.1 dB	2023-02-17 10:11:11	
LAS <sub>min</sub>	53.9 dB	2023-02-17 10:10:36	
LA <sub>eq</sub>	61.5 dB		
LC <sub>eq</sub>	68.6 dB	LC <sub>eq</sub> - LA <sub>eq</sub>	7.1 dB
LAI <sub>eq</sub>	62.7 dB	LAI <sub>eq</sub> - LA <sub>eq</sub>	1.2 dB

### Exceedances

#### Count Duration

LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 135.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 137.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 140.0 dB	0	0:00:00.0

### Community Noise

LDN	LDay	LNight	
61.5 dB	61.5 dB	0.0 dB	
LDEN	LDay	LEve	LNight
61.5 dB	61.5 dB	--- dB	--- dB

### Any Data

	Level	A Time Stamp	Level	C Time Stamp	Level	Z Time Stamp
L <sub>eq</sub>	61.5 dB		68.6 dB		--- dB	
LS <sub>(max)</sub>	71.1 dB	2023-02-17 10:11:11	--- dB	None	--- dB	None
LS <sub>(min)</sub>	53.9 dB	2023-02-17 10:10:36	--- dB	None	--- dB	None
L <sub>Peak(max)</sub>	--- dB	None	--- dB	None	97.8 dB	2023-02-17 10:14:05

### Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	20	0:00:56.10

### Statistics

LAS 5.0	66.5 dB
LAS 10.0	64.8 dB
LAS 33.3	61.4 dB
LAS 50.0	59.5 dB
LAS 66.6	58.1 dB
LAS 90.0	55.2 dB

## Noise Measurement Field Data

<b>Project:</b>	Good Samaritan Hospital	<b>Job Number:</b>	194091003
<b>Site No.:</b>	LT-1	<b>Date:</b>	2/17/2023
<b>Analyst:</b>	Tanay Pradhan	<b>Time:</b>	11:23 AM
<b>Location:</b>	Samartian Drive near the East Parking Lot Entrance		
<b>Noise Sources:</b>	Traffic on Samartian Drive, Siren, Parking Lot Noise, Pedestrian traffic		
<b>Comments:</b>			

### Results (dBA):

	<b>Leq:</b>	<b>Lmin:</b>	<b>Lmax:</b>	<b>Peak:</b>
Measurement 1:	62.8	42.6	97.4	119.9

### Equipment

<b>Sound Level Meter:</b>	LD SoundExpert LxT
<b>Calibrator:</b>	CAL200
<b>Response Time:</b>	Slow
<b>Weighting:</b>	A
<b>Microphone Height:</b>	5 feet

### Weather

<b>Temp. (degrees F):</b>	62
<b>Wind (mph):</b>	18
<b>Sky:</b>	Clear
<b>Bar. Pressure:</b>	29.83
<b>Humidity:</b>	46%

Photo:



# Measurement Report

## Report Summary

Meter's File Name	LxT_Data.014.s	Computer's File Name	LxTse_0006073-20230217 112348-LxT_Data.014.ldbin
Meter	LxT SE 0006073	Firmware	2.404
User		Location	
Job Description			
Note			
Start Time	2023-02-17 11:23:48	Duration	24:00:00.0
End Time	2023-02-18 11:23:48	Run Time	24:00:00.0
Pre-Calibration	2023-01-27 09:59:16	Post-Calibration	None
		Pause Time	0:00:00.0
		Calibration Deviation	---

## Results

### Overall Metrics

LA <sub>eq</sub>	62.8 dB		
LAE	112.2 dB	SEA	--- dB
EA	18.3 mPa <sup>2</sup> h		
LZ <sub>peak</sub>	119.9 dB	2023-02-17 14:39:54	
LAS <sub>max</sub>	97.4 dB	2023-02-18 10:01:50	
LAS <sub>min</sub>	42.6 dB	2023-02-17 23:26:54	
LA <sub>eq</sub>	62.8 dB		
LC <sub>eq</sub>	71.9 dB	LC <sub>eq</sub> - LA <sub>eq</sub>	9.1 dB
LAI <sub>eq</sub>	65.4 dB	LAI <sub>eq</sub> - LA <sub>eq</sub>	2.6 dB

### Exceedances

#### Count Duration

LAS > 85.0 dB	5	0:00:25.7
LAS > 115.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 135.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 137.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 140.0 dB	0	0:00:00.0

### Community Noise

LDN	LDay	LNight	
67.5 dB	63.8 dB	0.0 dB	
LDEN	LDay	LEve	LNight
67.6 dB	64.6 dB	56.8 dB	60.3 dB

### Any Data

	Level	A Time Stamp	Level	C Time Stamp	Level	Z Time Stamp
L <sub>eq</sub>	62.8 dB		71.9 dB		--- dB	
LS <sub>(max)</sub>	97.4 dB	2023-02-18 10:01:50	--- dB	None	--- dB	None
LS <sub>(min)</sub>	42.6 dB	2023-02-17 23:26:54	--- dB	None	--- dB	None
L <sub>Peak(max)</sub>	--- dB	None	--- dB	None	119.9 dB	2023-02-17 14:39:54

### Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	3120	5:04:31.4

### Statistics

LAS 5.0	66.6 dB
LAS 10.0	65.2 dB
LAS 33.3	61.5 dB
LAS 50.0	59.3 dB
LAS 66.6	56.4 dB
LAS 90.0	48.2 dB

Project:

Good Sam Phase 1

Construction Noise Impact on Sensitive Receptors

**Parameters**

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Residences	510	0	E
2	Medical Office Building	500	0	S
3			0	SE
4			0	E
5			0	E
6			0	NE
7			0	SW



					RECEPTOR 1		RECEPTOR 2	
Construction Phase	Equipment Type	No. of Equip.	Reference Acoustical Usage Factor	Noise Level at 50ft per Unit, Lmax	Noise Level at Receptor 1, Lmax	Noise Level at Receptor 1, Leq	Noise Level at Receptor 2, Lmax	Noise Level at Receptor 2, Leq
<b>Demolition</b>								
	Dozer	2	40%	82	64.5	60.6	64.7	60.7
	Excavator	3	40%	81	65.3	61.3	65.5	61.5
	Concrete Saw	1	20%	90	69.4	62.4	69.6	62.6
	<b>Combined LEQ</b>					<b>66.3</b>		<b>66.5</b>
<b>Site Preparation</b>								
	Dozer	3	40%	82	66.3	62.3	66.5	62.5
	Tractor	4	40%	84	69.8	65.9	70.0	66.0
	<b>Combined LEQ</b>					<b>67.5</b>		<b>67.6</b>
<b>Grading</b>								
	Grader	1	40%	85	64.8	60.8	65.0	61.0
	Excavator	2	40%	81	63.5	59.6	63.7	59.7
	Tractor	2	40%	84	66.8	62.9	67.0	63.0
	Scraper	2	40%	84	66.4	62.5	66.6	62.6
	Dozer	1	40%	82	61.5	57.5	61.7	57.7
	<b>Combined LEQ</b>					<b>68.0</b>		<b>68.2</b>

<b>Building Construction</b>								
	Man Lift	3	20%	75	59.3	52.3	59.5	52.5
	Generator	1	50%	81	60.4	57.4	60.6	57.6
	Crane	1	16%	81	60.4	52.5	60.6	52.6
	Welder/Torch	1	40%	74	53.8	49.8	54.0	50.0
	Tractor	3	40%	84	68.6	64.6	68.8	64.8
	Impact Pile Driver	1	20%	101	81.1	74.1	81.3	74.3
<b>Combined LEQ</b>						<b>74.7</b>		<b>74.9</b>
<b>Paving</b>								
	Paver	2	50%	77	60.0	57.0	60.2	57.2
	Pavement Scarafier	2	20%	90	72.3	65.3	72.5	65.5
	Roller	2	20%	80	62.8	55.8	63.0	56.0
<b>Combined LEQ</b>						<b>66.4</b>		<b>66.5</b>
<b>Architectural Coating</b>								
	Compressor (air)	1	40%	78	57.5	53.5	57.7	53.7
<b>Combined LEQ</b>						<b>53.5</b>		<b>53.7</b>

Source for Ref. Noise Levels: RCNM, 2005

Project:

Good Sam Phase 2

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Residences	390	0	S
2	Medical Office Building	300	0	S
3			0	SE
4			0	SW
5			0	N
6			0	NE
7			0	SW

					RECEPTOR 1		RECEPTOR 2	
Construction Phase	Equipment Type	No. of Equip.	Reference Acoustical Usage Factor	Noise Level at 50ft per Unit, Lmax	Noise Level at Receptor 1, Lmax	Noise Level at Receptor 1, Leq	Noise Level at Receptor 2, Lmax	Noise Level at Receptor 2, Leq
Demolition								
	Dozer	2	40%	82	66.9	62.9	69.1	65.2
	Concrete Saw	1	20%	90	71.8	64.8	74.0	67.0
	Excavator	3	40%	81	67.6	63.6	69.9	65.9
			#N/A	#N/A	0.0	0.0	0.0	0.0
Combined LEQ						68.6		70.9

<b>Site Preparation</b>									
	Dozer	3	40%	82	68.6	64.6	70.9	66.9	
	Tractor	4	40%	84	72.2	68.2	74.5	70.5	
			#N/A	#N/A	0.0	0.0	0.0	0.0	
	<b>Combined LEQ</b>				<b>69.8</b>			<b>72.1</b>	
<b>Grading</b>									
	Tractor	3	40%	84	70.9	66.9	73.2	69.2	
	Grader	1	40%	85	67.2	63.2	69.4	65.5	
	Excavator	1	40%	81	62.9	58.9	65.1	61.2	
	Dozer	1	40%	82	63.9	59.9	66.1	62.2	
	<b>Combined LEQ</b>				<b>69.4</b>			<b>71.7</b>	
<b>Building Construction</b>									
	Man Lift	3	20%	75	61.6	54.6	63.9	56.9	
	Generator	1	50%	81	62.8	59.7	65.0	62.0	
	Crane	1	16%	81	62.8	54.8	65.0	57.1	
	Welder/Torch	1	40%	74	56.2	52.2	58.4	54.5	
	Tractor	3	40%	84	70.9	66.9	73.2	69.2	
	<b>Combined LEQ</b>				<b>68.2</b>			<b>70.5</b>	
<b>Paving</b>									
	Paver	1	50%	77	59.4	56.3	61.6	58.6	
	Pavement Scarafier	2	20%	90	74.7	67.7	76.9	70.0	
	Roller	2	20%	80	65.2	58.2	67.4	60.5	
	Tractor	1	40%	84	66.2	62.2	68.4	64.5	
	Vibratory Concrete Mixer	2	20%	80	65.2	58.2	67.4	60.5	
	<b>Combined LEQ</b>				<b>69.7</b>			<b>71.9</b>	
<b>Architectural Coating</b>									
	Compressor (air)	1	40%	78	59.9	55.9	62.1	58.2	
	<b>Combined LEQ</b>				<b>55.9</b>			<b>58.2</b>	

Source for Ref. Noise Levels: RCNM, 2005

Project:

Good Sam Phase 3

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Residences	450	0	S
2	Medical Office Building	300	0	S
3			0	SE
4			0	SW
5			0	N
6			0	NE
7			0	SW

					RECEPTOR 1	RECEPTOR 2		
Construction Phase	Equipment Type	No. of Equip.	Reference Acoustical Usage Factor	Noise Level at 50ft per Unit, Lmax	Noise Level at Receptor 1, Lmax	Noise Level at Receptor 1, Leq	Noise Level at Receptor 2, Lmax	Noise Level at Receptor 2, Leq
Demolition								
	Dozer	2	40%	82	65.6	61.6	69.1	65.2
	Excavator	3	40%	81	66.4	62.4	69.9	65.9
	Concrete Saw	1	20%	90	70.5	63.5	74.0	67.0
Combined LEQ						67.4		70.9
Site Preparation								
	Dozer	3	40%	82	67.4	63.4	70.9	66.9
	Tractor	4	40%	84	70.9	67.0	74.5	70.5
Combined LEQ						68.5		72.1



<b>Grading</b>								
	Grader	1	40%	85	65.9	61.9	69.4	65.5
	Excavator	2	40%	81	64.6	60.6	68.1	64.2
	Tractor	2	40%	84	67.9	63.9	71.4	67.5
	Scraper	2	40%	84	67.5	63.5	71.0	67.1
	Dozer	1	40%	82	62.6	58.6	66.1	62.2
<b>Combined LEQ</b>						<b>69.1</b>		<b>72.7</b>
<b>Building Construction</b>								
	Man Lift	3	20%	75	60.4	53.4	63.9	56.9
	Generator	1	50%	81	61.5	58.5	65.0	62.0
	Crane	1	16%	81	61.5	53.6	65.0	57.1
	Welder/Torch	1	40%	74	54.9	50.9	58.4	54.5
	Tractor	3	40%	84	69.7	65.7	73.2	69.2
<b>Combined LEQ</b>						<b>67.0</b>		<b>70.5</b>
<b>Paving</b>								
	Paver	2	50%	77	61.1	58.1	64.6	61.6
	Pavement Scarafier	2	20%	90	73.4	66.4	76.9	70.0
	Roller	2	20%	80	63.9	56.9	67.4	60.5
<b>Combined LEQ</b>						<b>67.4</b>		<b>71.0</b>
<b>Architectural Coating</b>								
	Compressor (air)	1	40%	78	58.6	54.6	62.1	58.2
<b>Combined LEQ</b>						<b>54.6</b>		<b>58.2</b>

Source for Ref. Noise Levels: RCNM, 2005

**FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels**

**Project Name:** Good Samaritan Hospital San Jose  
**Project Number:**  
**Scenario:** Existing  
**Ldn/CNEL:** Ldn

Assumed 24-Hour Traffic Distribution:

	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

#	Roadway	Segment	Lanes	Median Width	ADT Volume	Speed (mph)	Alpha Factor	Vehicle Mix		Distance from Centerline of Roadway				
								Medium Trucks	Heavy Trucks	Ldn at 100 Feet	70 Ldn	65 Ldn	60 Ldn	55 Ldn
1	Bascom Ave	North of East Mozart Ave	6	12	36,130	40	0	2.0%	1.0%	67.2	-	168	530	1,676
2	Bascom Ave	South of East Mozart Ave	6	15	36,110	40	0	2.0%	1.0%	67.3	-	169	533	1,685
3	Bascom Avenue	South of Samaritan Dr	4	10	33,820	40	0	2.0%	1.0%	66.8	-	150	475	1,504
4	Bascom Avenue	South of White Oaks Avenue	6	12	33,900	40	0	2.0%	1.0%	67.0	-	157	497	1,572
5	Bascom Avenue	North of 85 N Ramps	6	15	34,680	40	0	2.0%	1.0%	67.1	-	162	512	1,619
6	Bascom Avenue	South of 85 N Ramps	6	15	37,070	40	0	2.0%	1.0%	67.4	-	173	547	1,730
7	Bascom Avenue	South of 85 S Ramps	6	15	41,090	40	0	2.0%	1.0%	67.8	-	192	606	1,918
8	East Mozart Ave	West of Bascom Ave	2	10	800	25	0	2.0%	1.0%	47.0	-	-	-	-
9	Kinghurst Dr	South of Samaritan Dr	4	12	3,640	25	0	2.0%	1.0%	53.7	-	-	-	74
10	Lark Ave	West of Los Gatos Blvd	4	12	26,190	30	0	2.0%	1.0%	63.6	-	73	232	733
11	Lark Ave	East of SR 17 ( E)	4	12	49,980	30	0	2.0%	1.0%	66.5	-	140	442	1,398
12	Los Gatos- Almaden Rd	East of National Ave	2	15	18,140	35	0	2.0%	1.0%	62.7	-	60	188	595
13	Los Gatos Almaden Rd	West of Union Ave	2	15	24,360	35	0	2.0%	1.0%	64.0	-	80	253	799
14	Los Gatos Blvd	North of Walker St	4	10	33,390	35	0	2.0%	1.0%	65.5	-	112	353	1,115
15	Los Gatos Blvd	South of Walker St	4	10	33,970	35	0	2.0%	1.0%	65.5	-	113	359	1,135
16	Los Gatos Blvd	North of Lark Ave	4	12	27,020	35	0	2.0%	1.0%	64.6	-	90	286	905
17	Los Gatos Blvd	South of Lark Ave	6	10	31,870	35	0	2.0%	1.0%	65.4	-	111	350	1,106
18	National Avenue	South of Samaritan Dr	2	15	6,400	25	0	2.0%	1.0%	56.0	-	-	40	127
19	National Avenue	North of Los Gatos-Almaden Rd	2	15	5,620	25	0	2.0%	1.0%	55.5	-	-	-	112
20	Samaritan Ct	South of Samaritan Dr	2	12	580	25	0	2.0%	1.0%	45.6	-	-	-	-
21	Samaritan Dr	East of National Ave	4	15	23,720	30	0	2.0%	1.0%	63.2	-	67	211	666
22	Samaritan Dr	East of Samaritan Ct	4	15	16,610	30	0	2.0%	1.0%	61.7	-	-	147	466
23	Samaritan Dr	West of Samaritan Ct	4	15	16,830	25	0	2.0%	1.0%	60.3	-	-	108	343
24	Samaritan Dr	East of Kinghurst Dr	4	15	16,360	30	0	2.0%	1.0%	61.6	-	-	145	459
25	Samaritan Dr	West of Union Ave	2	16	26,420	35	0	2.0%	1.0%	64.4	-	87	274	867
26	Samaritan Dr	East of Bascom Ave	4	10	25,660	30	0	2.0%	1.0%	63.5	-	72	226	716
27	Samaritan Dr	West of Bascom Ave	2	10	2,430	30	0	2.0%	1.0%	53.2	-	-	-	66
28	Samaritan Dr	East of Samaritan Pl	2	15	16,160	35	0	2.0%	1.0%	62.2	-	53	168	530
29	Samaritan Dr	West of Samaritan Pl	4	15	16,470	30	0	2.0%	1.0%	61.7	-	-	146	462
30	Samaritan Dr	East of SR 85 Southbound Off Ramp	4	15	26,650	35	0	2.0%	1.0%	64.5	-	90	283	896
31	Samaritan Dr	West of SR 85 Southbound Off Ramp	4	15	18,090	35	0	2.0%	1.0%	62.8	-	61	192	608
32	Samaritan Pl	North of Samaritan Dr	2	10	870	25	0	2.0%	1.0%	47.4	-	-	-	-
33	Union Ave	South of Camden Ave	4	10	29,150	35	0	2.0%	1.0%	64.9	-	97	308	974
34	Union Ave	North of SR 85 (N)	4	10	38,240	35	0	2.0%	1.0%	66.1	-	128	404	1,277
35	Union Ave	South of SR 85 (N)	6	10	42,630	35	0	2.0%	1.0%	66.7	-	148	468	1,479
36	Union Ave	South of SR 85 (S)	4	10	38,190	35	0	2.0%	1.0%	66.1	-	128	403	1,276
37	Union Ave	North of Los Gatos Almaden Rd	4	10	28,670	35	0	2.0%	1.0%	64.8	-	96	303	958
38	Walker St	West of Los Gatos Blvd	2	10	1,290	25	0	2.0%	1.0%	49.1	-	-	-	-
39	White Oaks Avenue	East of Bascom Ave	2	15	6,270	30	0	2.0%	1.0%	57.4	-	-	54	172
40	White Oaks Avenue	West of Bascom Ave	2	15	5,800	30	0	2.0%	1.0%	57.0	-	-	50	159

<sup>1</sup> Distance is from the centerline of the roadway segment to the receptor location.  
 "-" = contour is located within the roadway right-of-way.

**FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels**

**Project Name:** Good Samaritan Hospital San Jose  
**Project Number:**  
**Scenario:** Existing Plus Project  
**Ldn/CNEL:** Ldn

Assumed 24-Hour Traffic Distribution:

	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

#	Roadway	Segment	Lanes	Median Width	ADT Volume	Speed (mph)	Alpha Factor	Vehicle Mix		Distance from Centerline of Roadway				
								Medium Trucks	Heavy Trucks	Ldn at 100 Feet	70 Ldn	65 Ldn	60 Ldn	55 Ldn
1	Bascom Ave	North of East Mozart Ave	6	12	38,950	40	0	2.0%	1.0%	67.6	-	181	571	1,806
2	Bascom Ave	South of East Mozart Ave	6	15	38,930	40	0	2.0%	1.0%	67.6	-	182	575	1,817
3	Bascom Avenue	South of Samaritan Dr	4	10	36,830	40	0	2.0%	1.0%	67.1	52	164	518	1,637
4	Bascom Avenue	South of White Oaks Avenue	6	12	36,710	40	0	2.0%	1.0%	67.3	-	170	538	1,703
5	Bascom Avenue	North of 85 N Ramps	6	15	37,500	40	0	2.0%	1.0%	67.4	-	175	553	1,750
6	Bascom Avenue	South of 85 N Ramps	6	15	41,300	40	0	2.0%	1.0%	67.9	-	193	610	1,928
7	Bascom Avenue	South of 85 S Ramps	6	15	46,920	40	0	2.0%	1.0%	68.4	69	219	693	2,190
8	East Mozart Ave	West of Bascom Ave	2	10	800	25	0	2.0%	1.0%	47.0	-	-	-	-
9	Kinghurst Dr	South of Samaritan Dr	4	12	3,790	25	0	2.0%	1.0%	53.9	-	-	-	77
10	Lark Ave	West of Los Gatos Blvd	4	12	28,530	30	0	2.0%	1.0%	64.0	-	80	252	798
11	Lark Ave	East of SR 17 ( E )	4	12	52,320	30	0	2.0%	1.0%	66.7	-	146	463	1,463
12	Los Gatos- Almaden Rd	East of National Ave	2	15	18,140	35	0	2.0%	1.0%	62.7	-	60	188	595
13	Los Gatos Almaden Rd	West of Union Ave	2	15	24,360	35	0	2.0%	1.0%	64.0	-	80	253	799
14	Los Gatos Blvd	North of Walker St	4	10	36,400	35	0	2.0%	1.0%	65.8	-	122	385	1,216
15	Los Gatos Blvd	South of Walker St	4	10	36,980	35	0	2.0%	1.0%	65.9	-	124	391	1,235
16	Los Gatos Blvd	North of Lark Ave	4	12	30,020	35	0	2.0%	1.0%	65.0	-	101	318	1,005
17	Los Gatos Blvd	South of Lark Ave	6	10	32,530	35	0	2.0%	1.0%	65.5	-	113	357	1,129
18	National Avenue	South of Samaritan Dr	2	15	6,400	25	0	2.0%	1.0%	56.0	-	-	40	127
19	National Avenue	North of Los Gatos-Almaden Rd	2	15	5,620	25	0	2.0%	1.0%	55.5	-	-	-	112
20	Samaritan Ct	South of Samaritan Dr	2	12	580	25	0	2.0%	1.0%	45.6	-	-	-	-
21	Samaritan Dr	East of National Ave	4	15	32,580	30	0	2.0%	1.0%	64.6	-	91	289	915
22	Samaritan Dr	East of Samaritan Ct	4	15	25,470	30	0	2.0%	1.0%	63.5	-	72	226	715
23	Samaritan Dr	West of Samaritan Ct	4	15	25,690	25	0	2.0%	1.0%	62.2	-	52	165	523
24	Samaritan Dr	East of Kinghurst Dr	4	15	25,370	30	0	2.0%	1.0%	63.5	-	71	225	712
25	Samaritan Dr	West of Union Ave	2	15	31,800	35	0	2.0%	1.0%	65.2	-	104	330	1,043
26	Samaritan Dr	East of Bascom Ave	4	10	34,510	30	0	2.0%	1.0%	64.8	-	96	304	963
27	Samaritan Dr	West of Bascom Ave	2	10	2,430	30	0	2.0%	1.0%	53.2	-	-	-	66
28	Samaritan Dr	East of Samaritan Pl	2	15	22,040	35	0	2.0%	1.0%	63.6	-	72	229	723
29	Samaritan Dr	West of Samaritan Pl	4	15	22,890	30	0	2.0%	1.0%	63.1	-	64	203	643
30	Samaritan Dr	East of SR 85 Southbound Off Ramp	4	15	32,050	35	0	2.0%	1.0%	65.3	-	108	341	1,078
31	Samaritan Dr	West of SR 85 Southbound Off Ramp	4	15	23,830	35	0	2.0%	1.0%	64.0	-	80	253	801
32	Samaritan Pl	North of Samaritan Dr	2	10	1,410	25	0	2.0%	1.0%	49.5	-	-	-	-
33	Union Ave	South of Camden Ave	4	10	29,960	35	0	2.0%	1.0%	65.0	-	100	316	1,001
34	Union Ave	North of SR 85 (N)	4	10	39,210	35	0	2.0%	1.0%	66.2	-	131	414	1,310
35	Union Ave	South of SR 85 (N)	6	10	45,320	35	0	2.0%	1.0%	67.0	-	157	497	1,573
36	Union Ave	South of SR 85 (S)	4	10	39,530	35	0	2.0%	1.0%	66.2	-	132	418	1,320
37	Union Ave	North of Los Gatos Almaden Rd	4	10	30,000	35	0	2.0%	1.0%	65.0	-	100	317	1,002
38	Walker St	West of Los Gatos Blvd	2	10	1,290	25	0	2.0%	1.0%	49.1	-	-	-	-
39	White Oaks Avenue	East of Bascom Ave	2	15	6,420	30	0	2.0%	1.0%	57.5	-	-	56	176
40	White Oaks Avenue	West of Bascom Ave	2	15	5,800	30	0	2.0%	1.0%	57.0	-	-	50	159

<sup>1</sup> Distance is from the centerline of the roadway segment to the receptor location.

"-" = contour is located within the roadway right-of-way.

**FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels**

**Project Name:** Good Samaritan Hospital San Jose  
**Project Number:**  
**Scenario:** Opening Year  
**Ldn/CNEL:** Ldn

Assumed 24-Hour Traffic Distribution:

	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

#	Roadway	Segment				Speed (mph)	Alpha Factor	Vehicle Mix		Distance from Centerline of Roadway				
			Lanes	Median Width	ADT Volume			Medium Trucks	Heavy Trucks	Ldn at 100 Feet	70 Ldn	65 Ldn	60 Ldn	55 Ldn
1	Bascom Ave	North of East Mozart Ave	6	12	39,730	40	0	2.0%	1.0%	67.7	-	184	583	1,843
2	Bascom Ave	South of East Mozart Ave	6	15	39,710	40	0	2.0%	1.0%	67.7	-	185	586	1,853
3	Bascom Avenue	South of Samaritan Dr	4	10	41,580	40	0	2.0%	1.0%	67.7	58	185	585	1,849
4	Bascom Avenue	South of White Oaks Avenue	6	12	37,500	40	0	2.0%	1.0%	67.4	-	174	550	1,739
5	Bascom Avenue	North of 85 N Ramps	6	15	38,300	40	0	2.0%	1.0%	67.5	-	179	565	1,788
6	Bascom Avenue	South of 85 N Ramps	6	15	44,270	40	0	2.0%	1.0%	68.2	65	207	653	2,066
7	Bascom Avenue	South of 85 S Ramps	6	15	51,770	40	0	2.0%	1.0%	68.8	76	242	764	2,416
8	East Mozart Ave	West of Bascom Ave	2	10	800	25	0	2.0%	1.0%	47.0	-	-	-	-
9	Kinghurst Dr	South of Samaritan Dr	4	12	5,040	25	0	2.0%	1.0%	55.1	-	-	-	102
10	Lark Ave	West of Los Gatos Blvd	4	12	31,970	30	0	2.0%	1.0%	64.5	-	89	283	894
11	Lark Ave	East of SR 17 ( E)	4	12	57,380	30	0	2.0%	1.0%	67.1	51	160	507	1,605
12	Los Gatos- Almaden Rd	East of National Ave	2	15	19,700	35	0	2.0%	1.0%	63.1	-	65	204	646
13	Los Gatos Almaden Rd	West of Union Ave	2	15	24,980	35	0	2.0%	1.0%	64.1	-	82	259	820
14	Los Gatos Blvd	North of Walker St	4	10	40,450	35	0	2.0%	1.0%	66.3	-	135	427	1,351
15	Los Gatos Blvd	South of Walker St	4	10	43,550	35	0	2.0%	1.0%	66.6	-	145	460	1,455
16	Los Gatos Blvd	North of Lark Ave	4	12	37,640	35	0	2.0%	1.0%	66.0	-	126	399	1,260
17	Los Gatos Blvd	South of Lark Ave	6	10	37,070	35	0	2.0%	1.0%	66.1	-	129	407	1,287
18	National Avenue	South of Samaritan Dr	2	15	6,400	25	0	2.0%	1.0%	56.0	-	-	40	127
19	National Avenue	North of Los Gatos-Almaden Rd	2	15	6,500	25	0	2.0%	1.0%	56.1	-	-	41	129
20	Samaritan Ct	South of Samaritan Dr	2	12	4,620	25	0	2.0%	1.0%	54.6	-	-	-	92
21	Samaritan Dr	East of National Ave	4	15	31,460	30	0	2.0%	1.0%	64.5	-	88	279	883
22	Samaritan Dr	East of Samaritan Ct	4	15	22,230	30	0	2.0%	1.0%	63.0	-	62	197	624
23	Samaritan Dr	West of Samaritan Ct	4	15	24,110	25	0	2.0%	1.0%	61.9	-	-	155	491
24	Samaritan Dr	East of Kinghurst Dr	4	15	21,120	30	0	2.0%	1.0%	62.7	-	59	188	593
25	Samaritan Dr	West of Union Ave	2	15	30,760	35	0	2.0%	1.0%	65.0	-	101	319	1,009
26	Samaritan Dr	East of Bascom Ave	4	10	33,400	30	0	2.0%	1.0%	64.7	-	93	295	932
27	Samaritan Dr	West of Bascom Ave	2	10	7,630	30	0	2.0%	1.0%	58.2	-	-	66	208
28	Samaritan Dr	East of Samaritan Pl	2	15	20,200	35	0	2.0%	1.0%	63.2	-	66	210	663
29	Samaritan Dr	West of Samaritan Pl	4	15	20,510	30	0	2.0%	1.0%	62.6	-	58	182	576
30	Samaritan Dr	East of SR 85 Southbound Off Ramp	4	15	30,830	35	0	2.0%	1.0%	65.2	-	104	328	1,037
31	Samaritan Dr	West of SR 85 Southbound Off Ramp	4	15	22,110	35	0	2.0%	1.0%	63.7	-	74	235	743
32	Samaritan Pl	North of Samaritan Dr	2	10	870	25	0	2.0%	1.0%	47.4	-	-	-	-
33	Union Ave	South of Camden Ave	4	10	33,870	35	0	2.0%	1.0%	65.5	-	113	358	1,131
34	Union Ave	North of SR 85 (N)	4	10	41,480	35	0	2.0%	1.0%	66.4	-	139	438	1,386
35	Union Ave	South of SR 85 (N)	6	10	46,170	35	0	2.0%	1.0%	67.0	-	160	507	1,602
36	Union Ave	South of SR 85 (S)	4	10	39,590	35	0	2.0%	1.0%	66.2	-	132	418	1,322
37	Union Ave	North of Los Gatos Almaden Rd	4	10	29,670	35	0	2.0%	1.0%	65.0	-	99	313	991
38	Walker St	West of Los Gatos Blvd	2	10	2,550	25	0	2.0%	1.0%	52.0	-	-	-	51
39	White Oaks Avenue	East of Bascom Ave	2	15	7,010	30	0	2.0%	1.0%	57.8	-	-	61	192
40	White Oaks Avenue	West of Bascom Ave	2	15	6,540	30	0	2.0%	1.0%	57.5	-	-	57	179

<sup>1</sup> Distance is from the centerline of the roadway segment to the receptor location.  
 "-" = contour is located within the roadway right-of-way.

**FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels**

**Project Name:** Good Samaritan Hospital San Jose  
**Project Number:**  
**Scenario:** Opening Year Plus Project (Interim)  
**Ldn/CNEL:** Ldn

Assumed 24-Hour Traffic Distribution:

	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

#	Roadway	Segment				Speed (mph)	Alpha Factor	Vehicle Mix		Distance from Centerline of Roadway				
			Lanes	Median Width	ADT Volume			Medium Trucks	Heavy Trucks	Ldn at 100 Feet	70 Ldn	65 Ldn	60 Ldn	55 Ldn
1	Bascom Ave	North of East Mozart Ave	6	12	39,790	40	0	2.0%	1.0%	67.7	-	185	584	1,845
2	Bascom Ave	South of East Mozart Ave	6	15	39,770	40	0	2.0%	1.0%	67.7	-	186	587	1,856
3	Bascom Avenue	South of Samaritan Dr	4	10	41,640	40	0	2.0%	1.0%	67.7	59	185	585	1,851
4	Bascom Avenue	South of White Oaks Avenue	6	12	37,560	40	0	2.0%	1.0%	67.4	-	174	551	1,742
5	Bascom Avenue	North of 85 N Ramps	6	15	38,360	40	0	2.0%	1.0%	67.5	-	179	566	1,790
6	Bascom Avenue	South of 85 N Ramps	6	15	44,360	40	0	2.0%	1.0%	68.2	65	207	655	2,070
7	Bascom Avenue	South of 85 S Ramps	6	15	51,880	40	0	2.0%	1.0%	68.8	77	242	766	2,421
8	East Mozart Ave	West of Bascom Ave	2	10	800	25	0	2.0%	1.0%	47.0	-	-	-	-
9	Kinghurst Dr	South of Samaritan Dr	4	12	5,040	25	0	2.0%	1.0%	55.1	-	-	-	102
10	Lark Ave	West of Los Gatos Blvd	4	12	30,240	30	0	2.0%	1.0%	64.3	-	85	267	846
11	Lark Ave	East of SR 17 ( E)	4	12	57,430	30	0	2.0%	1.0%	67.1	51	161	508	1,606
12	Los Gatos- Almaden Rd	East of National Ave	2	15	19,700	35	0	2.0%	1.0%	63.1	-	65	204	646
13	Los Gatos Almaden Rd	West of Union Ave	2	15	24,980	35	0	2.0%	1.0%	64.1	-	82	259	820
14	Los Gatos Blvd	North of Walker St	4	10	40,510	35	0	2.0%	1.0%	66.3	-	135	428	1,353
15	Los Gatos Blvd	South of Walker St	4	10	43,610	35	0	2.0%	1.0%	66.6	-	146	461	1,457
16	Los Gatos Blvd	North of Lark Ave	4	12	35,940	35	0	2.0%	1.0%	65.8	-	120	381	1,204
17	Los Gatos Blvd	South of Lark Ave	6	10	37,060	35	0	2.0%	1.0%	66.1	-	129	407	1,286
18	National Avenue	South of Samaritan Dr	2	15	6,400	25	0	2.0%	1.0%	56.0	-	-	40	127
19	National Avenue	North of Los Gatos-Almaden Rd	2	15	6,500	25	0	2.0%	1.0%	56.1	-	-	41	129
20	Samaritan Ct	South of Samaritan Dr	2	12	4,620	25	0	2.0%	1.0%	54.6	-	-	-	92
21	Samaritan Dr	East of National Ave	4	15	31,640	30	0	2.0%	1.0%	64.5	-	89	281	888
22	Samaritan Dr	East of Samaritan Ct	4	15	22,410	30	0	2.0%	1.0%	63.0	-	63	199	629
23	Samaritan Dr	West of Samaritan Ct	4	15	24,290	25	0	2.0%	1.0%	61.9	-	-	156	495
24	Samaritan Dr	East of Kinghurst Dr	4	15	21,300	30	0	2.0%	1.0%	62.8	-	60	189	598
25	Samaritan Dr	West of Union Ave	2	15	30,860	35	0	2.0%	1.0%	65.1	-	101	320	1,012
26	Samaritan Dr	East of Bascom Ave	4	10	33,590	30	0	2.0%	1.0%	64.7	-	94	296	937
27	Samaritan Dr	West of Bascom Ave	2	10	7,630	30	0	2.0%	1.0%	58.2	-	-	66	208
28	Samaritan Dr	East of Samaritan Pl	2	15	20,330	35	0	2.0%	1.0%	63.2	-	67	211	667
29	Samaritan Dr	West of Samaritan Pl	4	15	20,650	30	0	2.0%	1.0%	62.6	-	58	183	580
30	Samaritan Dr	East of SR 85 Southbound Off Ramp	4	15	30,950	35	0	2.0%	1.0%	65.2	-	104	329	1,041
31	Samaritan Dr	West of SR 85 Southbound Off Ramp	4	15	22,240	35	0	2.0%	1.0%	63.7	-	75	236	748
32	Samaritan Pl	North of Samaritan Dr	2	10	880	25	0	2.0%	1.0%	47.4	-	-	-	-
33	Union Ave	South of Camden Ave	4	10	33,880	35	0	2.0%	1.0%	65.5	-	113	358	1,132
34	Union Ave	North of SR 85 (N)	4	10	41,500	35	0	2.0%	1.0%	66.4	-	139	438	1,386
35	Union Ave	South of SR 85 (N)	6	10	46,220	35	0	2.0%	1.0%	67.1	-	160	507	1,604
36	Union Ave	South of SR 85 (S)	4	10	39,610	35	0	2.0%	1.0%	66.2	-	132	418	1,323
37	Union Ave	North of Los Gatos Almaden Rd	4	10	29,690	35	0	2.0%	1.0%	65.0	-	99	314	992
38	Walker St	West of Los Gatos Blvd	2	10	2,550	25	0	2.0%	1.0%	52.0	-	-	-	51
39	White Oaks Avenue	East of Bascom Ave	2	15	7,010	30	0	2.0%	1.0%	57.8	-	-	61	192
40	White Oaks Avenue	West of Bascom Ave	2	15	6,540	30	0	2.0%	1.0%	57.5	-	-	57	179

<sup>1</sup> Distance is from the centerline of the roadway segment to the receptor location.  
 "-" = contour is located within the roadway right-of-way.



**FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels**

**Project Name:** Good Samaritan Hospital San Jose  
**Project Number:**  
**Scenario:** Opening Year Plus Project  
**Ldn/CNEL:** Ldn

Assumed 24-Hour Traffic Distribution:

	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

#	Roadway	Segment				Speed (mph)	Alpha Factor	Vehicle Mix		Distance from Centerline of Roadway				
			Lanes	Median Width	ADT Volume			Medium Trucks	Heavy Trucks	Ldn at 100 Feet	70 Ldn	Distance to Contour		
												65 Ldn	60 Ldn	55 Ldn
1	Bascom Ave	North of East Mozart Ave	6	12	42,550	40	0	2.0%	1.0%	68.0	62	197	624	1,973
2	Bascom Ave	South of East Mozart Ave	6	15	42,530	40	0	2.0%	1.0%	68.0	-	199	628	1,985
3	Bascom Avenue	South of Samaritan Dr	4	10	44,590	40	0	2.0%	1.0%	68.0	63	198	627	1,982
4	Bascom Avenue	South of White Oaks Avenue	6	12	40,310	40	0	2.0%	1.0%	67.7	-	187	591	1,869
5	Bascom Avenue	North of 85 N Ramps	6	15	41,120	40	0	2.0%	1.0%	67.8	-	192	607	1,919
6	Bascom Avenue	South of 85 N Ramps	6	15	48,500	40	0	2.0%	1.0%	68.5	72	226	716	2,264
7	Bascom Avenue	South of 85 S Ramps	6	15	57,600	40	0	2.0%	1.0%	69.3	85	269	850	2,688
8	East Mozart Ave	West of Bascom Ave	2	10	800	25	0	2.0%	1.0%	47.0	-	-	-	-
9	Kinghurst Dr	South of Samaritan Dr	4	12	5,190	25	0	2.0%	1.0%	55.2	-	-	-	105
10	Lark Ave	West of Los Gatos Blvd	4	12	31,450	30	0	2.0%	1.0%	64.4	-	88	278	880
11	Lark Ave	East of SR 17 ( E)	4	12	59,720	30	0	2.0%	1.0%	67.2	53	167	528	1,670
12	Los Gatos- Almaden Rd	East of National Ave	2	15	19,700	35	0	2.0%	1.0%	63.1	-	65	204	646
13	Los Gatos Almaden Rd	West of Union Ave	2	15	24,980	35	0	2.0%	1.0%	64.1	-	82	259	820
14	Los Gatos Blvd	North of Walker St	4	10	43,460	35	0	2.0%	1.0%	66.6	-	145	459	1,452
15	Los Gatos Blvd	South of Walker St	4	10	46,560	35	0	2.0%	1.0%	66.9	49	156	492	1,555
16	Los Gatos Blvd	North of Lark Ave	4	12	37,800	35	0	2.0%	1.0%	66.0	-	127	400	1,266
17	Los Gatos Blvd	South of Lark Ave	6	10	37,710	35	0	2.0%	1.0%	66.2	-	131	414	1,309
18	National Avenue	South of Samaritan Dr	2	15	6,400	25	0	2.0%	1.0%	56.0	-	-	40	127
19	National Avenue	North of Los Gatos-Almaden Rd	2	15	6,500	25	0	2.0%	1.0%	56.1	-	-	41	129
20	Samaritan Ct	South of Samaritan Dr	2	12	4,620	25	0	2.0%	1.0%	54.6	-	-	-	92
21	Samaritan Dr	East of National Ave	4	15	40,320	30	0	2.0%	1.0%	65.5	-	113	358	1,132
22	Samaritan Dr	East of Samaritan Ct	4	15	31,090	30	0	2.0%	1.0%	64.4	-	87	276	873
23	Samaritan Dr	West of Samaritan Ct	4	15	32,970	25	0	2.0%	1.0%	63.3	-	67	212	671
24	Samaritan Dr	East of Kinghurst Dr	4	15	30,130	30	0	2.0%	1.0%	64.3	-	85	268	846
25	Samaritan Dr	West of Union Ave	2	15	36,140	35	0	2.0%	1.0%	65.7	-	119	375	1,186
26	Samaritan Dr	East of Bascom Ave	4	10	42,250	30	0	2.0%	1.0%	65.7	-	118	373	1,179
27	Samaritan Dr	West of Bascom Ave	2	10	7,630	30	0	2.0%	1.0%	58.2	-	-	66	208
28	Samaritan Dr	East of Samaritan Pl	2	15	26,080	35	0	2.0%	1.0%	64.3	-	86	271	856
29	Samaritan Dr	West of Samaritan Pl	4	15	26,930	30	0	2.0%	1.0%	63.8	-	76	239	756
30	Samaritan Dr	East of SR 85 Southbound Off Ramp	4	15	36,230	35	0	2.0%	1.0%	65.9	-	122	385	1,218
31	Samaritan Dr	West of SR 85 Southbound Off Ramp	4	15	27,850	35	0	2.0%	1.0%	64.7	-	94	296	936
32	Samaritan Pl	North of Samaritan Dr	2	10	1,410	25	0	2.0%	1.0%	49.5	-	-	-	-
33	Union Ave	South of Camden Ave	4	10	34,680	35	0	2.0%	1.0%	65.6	-	116	366	1,158
34	Union Ave	North of SR 85 (N)	4	10	42,450	35	0	2.0%	1.0%	66.5	-	142	448	1,418
35	Union Ave	South of SR 85 (N)	6	10	48,860	35	0	2.0%	1.0%	67.3	-	170	536	1,696
36	Union Ave	South of SR 85 (S)	4	10	40,930	35	0	2.0%	1.0%	66.4	-	137	432	1,367
37	Union Ave	North of Los Gatos Almaden Rd	4	10	31,000	35	0	2.0%	1.0%	65.2	-	104	327	1,036
38	Walker St	West of Los Gatos Blvd	2	10	2,550	25	0	2.0%	1.0%	52.0	-	-	-	51
39	White Oaks Avenue	East of Bascom Ave	2	15	7,160	30	0	2.0%	1.0%	57.9	-	-	62	196
40	White Oaks Avenue	West of Bascom Ave	2	15	6,540	30	0	2.0%	1.0%	57.5	-	-	57	179

<sup>1</sup> Distance is from the centerline of the roadway segment to the receptor location.  
 "-" = contour is located within the roadway right-of-way.

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: Good Samaritan Hospital San Jose  
 Project Number:  
 Scenario: Horizon Year  
 Ldn/CNEL: Ldn

Assumed 24-Hour Traffic Distribution:

	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

#	Roadway	Segment	Lanes	Median Width	ADT Volume	Speed (mph)	Alpha Factor	Vehicle Mix		Ldn at 100 Feet	Distance from Centerline of Roadway			
								Medium Trucks	Heavy Trucks		Distance to Contour			
											70 Ldn	65 Ldn	60 Ldn	55 Ldn
1	Bascom Ave	North of East Mozart Ave	6	12	39,730	40	0	2.0%	1.0%	67.7	-	184	583	1,843
2	Bascom Ave	South of East Mozart Ave	6	15	39,710	40	0	2.0%	1.0%	67.7	-	185	586	1,853
3	Bascom Avenue	South of Samaritan Dr	4	10	43,030	40	0	2.0%	1.0%	67.8	60	191	605	1,913
4	Bascom Avenue	South of White Oaks Avenue	6	12	38,950	40	0	2.0%	1.0%	67.6	-	181	571	1,806
5	Bascom Avenue	North of 85 N Ramps	6	15	39,750	40	0	2.0%	1.0%	67.7	-	186	587	1,855
6	Bascom Avenue	South of 85 N Ramps	6	15	45,720	40	0	2.0%	1.0%	68.3	67	213	675	2,134
7	Bascom Avenue	South of 85 S Ramps	6	15	53,220	40	0	2.0%	1.0%	69.0	79	248	786	2,484
8	East Mozart Ave	West of Bascom Ave	2	10	800	25	0	2.0%	1.0%	47.0	-	-	-	-
9	Kinghurst Dr	South of Samaritan Dr	4	12	5,040	25	0	2.0%	1.0%	55.1	-	-	-	102
10	Lark Ave	West of Los Gatos Blvd	4	12	32,140	30	0	2.0%	1.0%	64.5	-	90	284	899
11	Lark Ave	East of SR 17 ( E)	4	12	57,410	30	0	2.0%	1.0%	67.1	51	161	508	1,606
12	Los Gatos- Almaden Rd	East of National Ave	2	15	20,290	35	0	2.0%	1.0%	63.2	-	67	211	666
13	Los Gatos Almaden Rd	West of Union Ave	2	15	24,980	35	0	2.0%	1.0%	64.1	-	82	259	820
14	Los Gatos Blvd	North of Walker St	4	10	40,450	35	0	2.0%	1.0%	66.3	-	135	427	1,351
15	Los Gatos Blvd	South of Walker St	4	10	43,550	35	0	2.0%	1.0%	66.6	-	145	460	1,455
16	Los Gatos Blvd	North of Lark Ave	4	12	39,090	35	0	2.0%	1.0%	66.2	-	131	414	1,309
17	Los Gatos Blvd	South of Lark Ave	6	10	38,690	35	0	2.0%	1.0%	66.3	-	134	425	1,343
18	National Avenue	South of Samaritan Dr	2	15	6,400	25	0	2.0%	1.0%	56.0	-	-	40	127
19	National Avenue	North of Los Gatos-Almaden Rd	2	15	6,500	25	0	2.0%	1.0%	56.1	-	-	41	129
20	Samaritan Ct	South of Samaritan Dr	2	12	4,620	25	0	2.0%	1.0%	54.6	-	-	-	92
21	Samaritan Dr	East of National Ave	4	15	31,460	30	0	2.0%	1.0%	64.5	-	88	279	883
22	Samaritan Dr	East of Samaritan Ct	4	15	22,230	30	0	2.0%	1.0%	63.0	-	62	197	624
23	Samaritan Dr	West of Samaritan Ct	4	15	24,110	25	0	2.0%	1.0%	61.9	-	-	155	491
24	Samaritan Dr	East of Kinghurst Dr	4	15	21,120	30	0	2.0%	1.0%	62.7	-	59	188	593
25	Samaritan Dr	West of Union Ave	2	15	30,760	35	0	2.0%	1.0%	65.0	-	101	319	1,009
26	Samaritan Dr	East of Bascom Ave	4	10	33,400	30	0	2.0%	1.0%	64.7	-	93	295	932
27	Samaritan Dr	West of Bascom Ave	2	10	7,630	30	0	2.0%	1.0%	58.2	-	-	66	208
28	Samaritan Dr	East of Samaritan Pl	2	15	20,200	35	0	2.0%	1.0%	63.2	-	66	210	663
29	Samaritan Dr	West of Samaritan Pl	4	15	20,510	30	0	2.0%	1.0%	62.6	-	58	182	576
30	Samaritan Dr	East of SR 85 Southbound Off Ramp	4	15	30,830	35	0	2.0%	1.0%	65.2	-	104	328	1,037
31	Samaritan Dr	West of SR 85 Southbound Off Ramp	4	15	22,110	35	0	2.0%	1.0%	63.7	-	74	235	743
32	Samaritan Pl	North of Samaritan Dr	2	10	870	25	0	2.0%	1.0%	47.4	-	-	-	-
33	Union Ave	South of Camden Ave	4	10	33,870	35	0	2.0%	1.0%	65.5	-	113	358	1,131
34	Union Ave	North of SR 85 (N)	4	10	41,480	35	0	2.0%	1.0%	66.4	-	139	438	1,386
35	Union Ave	South of SR 85 (N)	6	10	46,170	35	0	2.0%	1.0%	67.0	-	160	507	1,602
36	Union Ave	South of SR 85 (S)	4	10	39,590	35	0	2.0%	1.0%	66.2	-	132	418	1,322
37	Union Ave	North of Los Gatos Almaden Rd	4	10	29,670	35	0	2.0%	1.0%	65.0	-	99	313	991
38	Walker St	West of Los Gatos Blvd	2	10	2,550	25	0	2.0%	1.0%	52.0	-	-	-	51
39	White Oaks Avenue	East of Bascom Ave	2	15	7,010	30	0	2.0%	1.0%	57.8	-	-	61	192
40	White Oaks Avenue	West of Bascom Ave	2	15	6,540	30	0	2.0%	1.0%	57.5	-	-	57	179

<sup>1</sup> Distance is from the centerline of the roadway segment to the receptor location.  
 "-" = contour is located within the roadway right-of-way.

**FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels**

**Project Name:** Good Samaritan Hospital San Jose  
**Project Number:**  
**Scenario:** Horizon Year Plus Project  
**Ldn/CNEL:** Ldn

Assumed 24-Hour Traffic Distribution:

	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

#	Roadway	Segment	Lanes	Median Width	ADT Volume	Speed (mph)	Alpha Factor	Vehicle Mix		Distance from Centerline of Roadway				
								Medium Trucks	Heavy Trucks	Ldn at 100 Feet	70 Ldn	Distance to Contour		
												65 Ldn	60 Ldn	55 Ldn
1	Bascom Ave	North of East Mozart Ave	6	12	42,550	40	0	2.0%	1.0%	68.0	62	197	624	1,973
2	Bascom Ave	South of East Mozart Ave	6	15	42,530	40	0	2.0%	1.0%	68.0	-	199	628	1,985
3	Bascom Avenue	South of Samaritan Dr	4	10	46,040	40	0	2.0%	1.0%	68.1	65	205	647	2,047
4	Bascom Avenue	South of White Oaks Avenue	6	12	41,760	40	0	2.0%	1.0%	67.9	-	194	612	1,937
5	Bascom Avenue	North of 85 N Ramps	6	15	42,570	40	0	2.0%	1.0%	68.0	-	199	628	1,987
6	Bascom Avenue	South of 85 N Ramps	6	15	49,950	40	0	2.0%	1.0%	68.7	74	233	737	2,331
7	Bascom Avenue	South of 85 S Ramps	6	15	59,050	40	0	2.0%	1.0%	69.4	87	276	872	2,756
8	East Mozart Ave	West of Bascom Ave	2	10	800	25	0	2.0%	1.0%	47.0	-	-	-	-
9	Kinghurst Dr	South of Samaritan Dr	4	12	5,190	25	0	2.0%	1.0%	55.2	-	-	-	105
10	Lark Ave	West of Los Gatos Blvd	4	12	31,520	30	0	2.0%	1.0%	64.5	-	88	279	882
11	Lark Ave	East of SR 17 ( E)	4	12	59,750	30	0	2.0%	1.0%	67.2	53	167	528	1,671
12	Los Gatos- Almaden Rd	East of National Ave	2	15	20,290	35	0	2.0%	1.0%	63.2	-	67	211	666
13	Los Gatos Almaden Rd	West of Union Ave	2	15	24,980	35	0	2.0%	1.0%	64.1	-	82	259	820
14	Los Gatos Blvd	North of Walker St	4	10	43,460	35	0	2.0%	1.0%	66.6	-	145	459	1,452
15	Los Gatos Blvd	South of Walker St	4	10	46,560	35	0	2.0%	1.0%	66.9	49	156	492	1,555
16	Los Gatos Blvd	North of Lark Ave	4	12	39,250	35	0	2.0%	1.0%	66.2	-	131	416	1,314
17	Los Gatos Blvd	South of Lark Ave	6	10	39,230	35	0	2.0%	1.0%	66.3	-	136	431	1,361
18	National Avenue	South of Samaritan Dr	2	15	6,400	25	0	2.0%	1.0%	56.0	-	-	40	127
19	National Avenue	North of Los Gatos-Almaden Rd	2	15	6,500	25	0	2.0%	1.0%	56.1	-	-	41	129
20	Samaritan Ct	South of Samaritan Dr	2	12	4,620	25	0	2.0%	1.0%	54.6	-	-	-	92
21	Samaritan Dr	East of National Ave	4	15	40,320	30	0	2.0%	1.0%	65.5	-	113	358	1,132
22	Samaritan Dr	East of Samaritan Ct	4	15	31,090	30	0	2.0%	1.0%	64.4	-	87	276	873
23	Samaritan Dr	West of Samaritan Ct	4	15	32,970	25	0	2.0%	1.0%	63.3	-	67	212	671
24	Samaritan Dr	East of Kinghurst Dr	4	15	30,130	30	0	2.0%	1.0%	64.3	-	85	268	846
25	Samaritan Dr	West of Union Ave	2	15	36,140	35	0	2.0%	1.0%	65.7	-	119	375	1,186
26	Samaritan Dr	East of Bascom Ave	4	10	42,250	30	0	2.0%	1.0%	65.7	-	118	373	1,179
27	Samaritan Dr	West of Bascom Ave	2	10	7,630	30	0	2.0%	1.0%	58.2	-	-	66	208
28	Samaritan Dr	East of Samaritan Pl	2	15	26,080	35	0	2.0%	1.0%	64.3	-	86	271	856
29	Samaritan Dr	West of Samaritan Pl	4	15	26,930	30	0	2.0%	1.0%	63.8	-	76	239	756
30	Samaritan Dr	East of SR 85 Southbound Off Ramp	4	15	36,230	35	0	2.0%	1.0%	65.9	-	122	385	1,218
31	Samaritan Dr	West of SR 85 Southbound Off Ramp	4	15	27,850	35	0	2.0%	1.0%	64.7	-	94	296	936
32	Samaritan Pl	North of Samaritan Dr	2	10	1,410	25	0	2.0%	1.0%	49.5	-	-	-	-
33	Union Ave	South of Camden Ave	4	10	34,680	35	0	2.0%	1.0%	65.6	-	116	366	1,158
34	Union Ave	North of SR 85 (N)	4	10	42,450	35	0	2.0%	1.0%	66.5	-	142	448	1,418
35	Union Ave	South of SR 85 (N)	6	10	48,860	35	0	2.0%	1.0%	67.3	-	170	536	1,696
36	Union Ave	South of SR 85 (S)	4	10	40,930	35	0	2.0%	1.0%	66.4	-	137	432	1,367
37	Union Ave	North of Los Gatos Almaden Rd	4	10	31,000	35	0	2.0%	1.0%	65.2	-	104	327	1,036
38	Walker St	West of Los Gatos Blvd	2	10	2,550	25	0	2.0%	1.0%	52.0	-	-	-	51
39	White Oaks Avenue	East of Bascom Ave	2	15	7,160	30	0	2.0%	1.0%	57.9	-	-	62	196
40	White Oaks Avenue	West of Bascom Ave	2	15	6,540	30	0	2.0%	1.0%	57.5	-	-	57	179



<sup>1</sup> Distance is from the centerline of the roadway segment to the receptor location.  
 "-" = contour is located within the roadway right-of-way.





## Good Sam Receiver Map

### Signs and symbols

-  Receiver
-  Receiver at building

1 : 4114

0 20 40 80 120 160 m



## Receiver list - Buildout

No.	Receiver name	Building side	Floor	Limit				Level				Conflict			
				Day	Night	Ldn	Lmax	Day	Night	Ldn	Lmax	Day	Night	Ldn	Lmax
				dB(A)				dB(A)				dB			
1	Campbell 1	-	1.FI	-	-	-	-	38.8	38.6	44.6	0.0	-	-	-	-
2	Elderly Care Home	North w	1.FI	-	-	-	-	49.1	48.9	54.9	0.0	-	-	-	-
			2.FI	-	-	-	-	48.4	48.2	54.2	0.0	-	-	-	-
			3.FI	-	-	-	-	46.6	46.1	52.2	0.0	-	-	-	-
			4.FI	-	-	-	-	46.4	45.8	51.9	0.0	-	-	-	-
			5.FI	-	-	-	-	45.9	45.0	51.2	0.0	-	-	-	-
			6.FI	-	-	-	-	48.9	48.3	54.4	0.0	-	-	-	-
			7.FI	-	-	-	-	48.1	47.4	53.6	0.0	-	-	-	-
3	Los Gatos 1	-	1.FI	-	-	-	-	35.4	34.4	40.6	0.0	-	-	-	-
4	Los Gatos 2	-	1.FI	-	-	-	-	36.1	34.6	40.9	0.0	-	-	-	-
5	Los Gatos 3	-	1.FI	-	-	-	-	31.5	31.1	37.2	0.0	-	-	-	-
6	Los Gatos 4	-	1.FI	-	-	-	-	31.9	31.4	37.5	0.0	-	-	-	-
7	Los Gatos 5	-	1.FI	-	-	-	-	34.7	34.0	40.2	0.0	-	-	-	-
8	Los Gatos 6	-	1.FI	-	-	-	-	35.6	35.1	41.2	0.0	-	-	-	-
9	Los Gatos 7	-	1.FI	-	-	-	-	36.1	35.2	41.4	0.0	-	-	-	-
10	San Jose 1	-	1.FI	-	-	-	-	58.0	57.9	64.0	0.0	-	-	-	-
			2.FI	-	-	-	-	57.2	57.1	63.1	0.0	-	-	-	-
11	San Jose 2	-	1.FI	-	-	-	-	54.6	54.5	60.5	0.0	-	-	-	-
			2.FI	-	-	-	-	53.6	53.4	59.5	0.0	-	-	-	-
12	San Jose 3	-	1.FI	-	-	-	-	56.6	56.5	62.5	0.0	-	-	-	-
			2.FI	-	-	-	-	55.5	55.4	61.4	0.0	-	-	-	-
13	San Jose 4	-	1.FI	-	-	-	-	51.3	51.0	57.0	0.0	-	-	-	-
			2.FI	-	-	-	-	50.7	50.3	56.4	0.0	-	-	-	-
14	San Jose 5	-	1.FI	-	-	-	-	51.1	50.8	56.9	0.0	-	-	-	-
			2.FI	-	-	-	-	50.1	49.7	55.8	0.0	-	-	-	-
15	San Jose 6	-	1.FI	-	-	-	-	47.0	46.7	52.8	0.0	-	-	-	-
			2.FI	-	-	-	-	45.1	44.6	50.8	0.0	-	-	-	-
16	San Jose 7	-	1.FI	-	-	-	-	45.5	45.0	51.1	0.0	-	-	-	-
			2.FI	-	-	-	-	45.0	44.5	50.6	0.0	-	-	-	-
17	San Jose 8	-	1.FI	-	-	-	-	45.0	44.6	50.7	0.0	-	-	-	-
			2.FI	-	-	-	-	44.4	44.0	50.1	0.0	-	-	-	-
18	San Jose 9	-	1.FI	-	-	-	-	44.8	44.4	50.5	0.0	-	-	-	-
			2.FI	-	-	-	-	44.6	44.3	50.4	0.0	-	-	-	-
19	San Jose 10	-	1.FI	-	-	-	-	41.8	41.6	47.7	0.0	-	-	-	-
20	San Jose 11	-	1.FI	-	-	-	-	43.4	43.3	49.3	0.0	-	-	-	-
21	San Jose 12	-	1.FI	-	-	-	-	42.7	42.3	48.4	0.0	-	-	-	-
22	San Jose 13	-	1.FI	-	-	-	-	43.7	43.2	49.3	0.0	-	-	-	-
23	San Jose 14	-	1.FI	-	-	-	-	44.0	43.6	49.7	0.0	-	-	-	-
24	San Jose 15	-	1.FI	-	-	-	-	43.1	42.8	48.9	0.0	-	-	-	-
25	San Jose 16	-	1.FI	-	-	-	-	44.5	44.2	50.3	0.0	-	-	-	-
26	San Jose 17	-	1.FI	-	-	-	-	44.5	44.3	50.3	0.0	-	-	-	-
27	San Jose 18	-	1.FI	-	-	-	-	44.6	44.3	50.4	0.0	-	-	-	-
28	San Jose 19	-	1.FI	-	-	-	-	44.4	43.9	50.0	0.0	-	-	-	-
29	San Jose 20	-	1.FI	-	-	-	-	44.2	43.2	49.4	0.0	-	-	-	-
30	San Jose 21	-	1.FI	-	-	-	-	44.9	43.9	50.1	0.0	-	-	-	-
31	San Jose 22	-	1.FI	-	-	-	-	44.4	43.5	49.6	0.0	-	-	-	-
32	San Jose 23	-	1.FI	-	-	-	-	43.3	42.4	48.6	0.0	-	-	-	-
33	San Jose 24	-	1.FI	-	-	-	-	42.6	41.3	47.6	0.0	-	-	-	-
34	San Jose 25	-	1.FI	-	-	-	-	44.7	43.5	49.8	0.0	-	-	-	-
35	San Jose 26	-	1.FI	-	-	-	-	43.3	42.0	48.3	0.0	-	-	-	-
36	San Jose 27	-	1.FI	-	-	-	-	44.9	43.8	50.0	0.0	-	-	-	-
37	San Jose 28	-	1.FI	-	-	-	-	45.2	44.0	50.2	0.0	-	-	-	-
38	San Jose 29	-	1.FI	-	-	-	-	43.7	42.7	48.9	0.0	-	-	-	-
39	San Jose 30	-	1.FI	-	-	-	-	43.3	41.8	48.1	0.0	-	-	-	-
40	San Jose 31	-	1.FI	-	-	-	-	46.6	45.7	51.9	0.0	-	-	-	-
41	San Jose 32	-	1.FI	-	-	-	-	42.3	40.3	46.7	0.0	-	-	-	-
			2.FI	-	-	-	-	43.0	40.7	47.2	0.0	-	-	-	-
42	San Jose 33	-	1.FI	-	-	-	-	42.2	40.6	47.0	0.0	-	-	-	-
43	San Jose 34	-	1.FI	-	-	-	-	41.4	40.1	46.4	0.0	-	-	-	-
44	San Jose 35	-	1.FI	-	-	-	-	43.0	41.8	48.0	0.0	-	-	-	-
45	San Jose 36	-	1.FI	-	-	-	-	53.2	53.1	59.2	0.0	-	-	-	-
46	San Jose 37	-	1.FI	-	-	-	-	52.6	52.6	58.6	0.0	-	-	-	-
47	San Jose 38	-	1.FI	-	-	-	-	54.0	54.0	60.0	0.0	-	-	-	-
			2.FI	-	-	-	-	57.5	57.5	63.5	0.0	-	-	-	-
48	San Jose 39	-	1.FI	-	-	-	-	54.4	54.4	60.4	0.0	-	-	-	-



## Receiver list

No.	Receiver name	Building side	Floor	Limit				Level				Conflict			
				Day	Night	Ldn	Lmax	Day	Night	Ldn	Lmax	Day	Night	Ldn	Lmax
				dB(A)				dB(A)				dB			
49	San Jose 40	-	1.FI	-	-	-	-	53.5	53.4	59.4	0.0	-	-	-	-
			2.FI	-	-	-	-	60.5	60.5	66.5	0.0	-	-	-	-
50	San Jose 41	-	1.FI	-	-	-	-	51.9	51.8	57.8	0.0	-	-	-	-
51	San Jose 42	-	1.FI	-	-	-	-	52.1	52.0	58.0	0.0	-	-	-	-
			2.FI	-	-	-	-	58.3	58.3	64.3	0.0	-	-	-	-
52	San Jose 43	-	1.FI	-	-	-	-	51.3	51.3	57.3	0.0	-	-	-	-
53	San Jose 44	-	1.FI	-	-	-	-	48.2	48.2	54.2	0.0	-	-	-	-
			2.FI	-	-	-	-	56.9	56.9	62.9	0.0	-	-	-	-
54	San Jose 45	-	1.FI	-	-	-	-	41.7	41.5	47.6	0.0	-	-	-	-
			2.FI	-	-	-	-	49.1	48.9	54.9	0.0	-	-	-	-
55	San Jose 46	-	1.FI	-	-	-	-	41.5	41.2	47.2	0.0	-	-	-	-
			2.FI	-	-	-	-	48.3	48.1	54.2	0.0	-	-	-	-

## Receiver list - Operation Phase 1 & Construction Phase 2

No.	Receiver name	Building side	Floor	Limit				Level				Conflict			
				Day	Night	Ldn	Lmax	Day	Night	Ldn	Lmax	Day	Night	Ldn	Lmax
				dB(A)				dB(A)				dB			
1	Campbell 1	-	1.FI	-	-	-	-	47.4	41.1	49.0	0.0	-	-	-	-
2	Elderly Care Home	North w	1.FI	-	-	-	-	69.9	48.8	68.3	0.0	-	-	-	-
			2.FI	-	-	-	-	69.8	48.1	68.2	0.0	-	-	-	-
			3.FI	-	-	-	-	69.3	46.0	67.7	0.0	-	-	-	-
			4.FI	-	-	-	-	68.9	45.9	67.2	0.0	-	-	-	-
			5.FI	-	-	-	-	68.8	45.5	67.1	0.0	-	-	-	-
			6.FI	-	-	-	-	68.8	48.4	67.2	0.0	-	-	-	-
			7.FI	-	-	-	-	68.8	47.3	67.1	0.0	-	-	-	-
3	Los Gatos 1	-	1.FI	-	-	-	-	52.2	35.5	50.9	0.0	-	-	-	-
4	Los Gatos 2	-	1.FI	-	-	-	-	52.7	36.2	51.4	0.0	-	-	-	-
5	Los Gatos 3	-	1.FI	-	-	-	-	42.8	31.0	42.3	0.0	-	-	-	-
6	Los Gatos 4	-	1.FI	-	-	-	-	43.4	31.3	42.8	0.0	-	-	-	-
7	Los Gatos 5	-	1.FI	-	-	-	-	54.8	33.9	53.2	0.0	-	-	-	-
8	Los Gatos 6	-	1.FI	-	-	-	-	54.0	33.7	52.4	0.0	-	-	-	-
9	Los Gatos 7	-	1.FI	-	-	-	-	54.7	35.4	53.2	0.0	-	-	-	-
10	San Jose 1	-	1.FI	-	-	-	-	63.0	58.2	65.5	0.0	-	-	-	-
			2.FI	-	-	-	-	62.8	57.5	65.0	0.0	-	-	-	-
11	San Jose 2	-	1.FI	-	-	-	-	63.9	55.1	64.3	0.0	-	-	-	-
			2.FI	-	-	-	-	63.9	54.4	64.1	0.0	-	-	-	-
12	San Jose 3	-	1.FI	-	-	-	-	65.8	56.7	66.1	0.0	-	-	-	-
			2.FI	-	-	-	-	65.7	55.7	65.7	0.0	-	-	-	-
13	San Jose 4	-	1.FI	-	-	-	-	65.5	51.2	64.5	0.0	-	-	-	-
			2.FI	-	-	-	-	65.5	50.7	64.4	0.0	-	-	-	-
14	San Jose 5	-	1.FI	-	-	-	-	66.3	51.1	65.1	0.0	-	-	-	-
			2.FI	-	-	-	-	66.2	50.2	64.9	0.0	-	-	-	-
15	San Jose 6	-	1.FI	-	-	-	-	66.2	46.9	64.7	0.0	-	-	-	-
			2.FI	-	-	-	-	63.7	45.0	62.2	0.0	-	-	-	-
16	San Jose 7	-	1.FI	-	-	-	-	64.4	45.7	62.9	0.0	-	-	-	-
			2.FI	-	-	-	-	63.6	45.2	62.1	0.0	-	-	-	-
17	San Jose 8	-	1.FI	-	-	-	-	60.1	44.9	58.9	0.0	-	-	-	-
			2.FI	-	-	-	-	57.5	44.4	56.7	0.0	-	-	-	-
18	San Jose 9	-	1.FI	-	-	-	-	59.9	44.7	58.8	0.0	-	-	-	-
			2.FI	-	-	-	-	56.5	44.5	55.9	0.0	-	-	-	-
19	San Jose 10	-	1.FI	-	-	-	-	66.2	41.2	64.5	0.0	-	-	-	-
20	San Jose 11	-	1.FI	-	-	-	-	67.8	42.3	66.1	0.0	-	-	-	-
21	San Jose 12	-	1.FI	-	-	-	-	68.1	41.4	66.4	0.0	-	-	-	-
22	San Jose 13	-	1.FI	-	-	-	-	66.7	42.7	65.0	0.0	-	-	-	-
23	San Jose 14	-	1.FI	-	-	-	-	61.9	42.7	60.4	0.0	-	-	-	-
24	San Jose 15	-	1.FI	-	-	-	-	60.3	41.8	58.9	0.0	-	-	-	-
25	San Jose 16	-	1.FI	-	-	-	-	60.5	43.5	59.2	0.0	-	-	-	-
26	San Jose 17	-	1.FI	-	-	-	-	62.9	43.6	61.4	0.0	-	-	-	-
27	San Jose 18	-	1.FI	-	-	-	-	65.7	44.3	64.1	0.0	-	-	-	-
28	San Jose 19	-	1.FI	-	-	-	-	67.0	45.1	65.4	0.0	-	-	-	-
29	San Jose 20	-	1.FI	-	-	-	-	70.5	42.9	68.8	0.0	-	-	-	-
30	San Jose 21	-	1.FI	-	-	-	-	71.2	45.1	69.5	0.0	-	-	-	-
31	San Jose 22	-	1.FI	-	-	-	-	70.8	45.4	69.1	0.0	-	-	-	-
32	San Jose 23	-	1.FI	-	-	-	-	68.0	44.3	66.4	0.0	-	-	-	-
33	San Jose 24	-	1.FI	-	-	-	-	66.2	41.4	64.5	0.0	-	-	-	-
34	San Jose 25	-	1.FI	-	-	-	-	69.4	42.4	67.7	0.0	-	-	-	-
35	San Jose 26	-	1.FI	-	-	-	-	68.0	40.5	66.2	0.0	-	-	-	-
36	San Jose 27	-	1.FI	-	-	-	-	67.6	41.8	65.9	0.0	-	-	-	-
37	San Jose 28	-	1.FI	-	-	-	-	70.0	42.7	68.3	0.0	-	-	-	-
38	San Jose 29	-	1.FI	-	-	-	-	66.2	41.4	64.5	0.0	-	-	-	-
39	San Jose 30	-	1.FI	-	-	-	-	65.4	41.2	63.8	0.0	-	-	-	-
40	San Jose 31	-	1.FI	-	-	-	-	67.9	45.5	66.3	0.0	-	-	-	-
41	San Jose 32	-	1.FI	-	-	-	-	65.1	40.1	63.4	0.0	-	-	-	-
			2.FI	-	-	-	-	68.3	41.1	66.6	0.0	-	-	-	-
42	San Jose 33	-	1.FI	-	-	-	-	66.2	40.8	64.5	0.0	-	-	-	-
43	San Jose 34	-	1.FI	-	-	-	-	63.0	40.8	61.4	0.0	-	-	-	-
44	San Jose 35	-	1.FI	-	-	-	-	62.3	41.7	60.7	0.0	-	-	-	-
45	San Jose 36	-	1.FI	-	-	-	-	56.9	54.7	61.2	0.0	-	-	-	-
46	San Jose 37	-	1.FI	-	-	-	-	57.3	55.1	61.5	0.0	-	-	-	-
47	San Jose 38	-	1.FI	-	-	-	-	58.1	56.1	62.5	0.0	-	-	-	-
			2.FI	-	-	-	-	63.5	61.8	68.2	0.0	-	-	-	-
48	San Jose 39	-	1.FI	-	-	-	-	57.9	55.5	62.0	0.0	-	-	-	-

## Receiver list

No.	Receiver name	Building side	Floor	Limit				Level				Conflict			
				Day	Night	Ldn	Lmax	Day	Night	Ldn	Lmax	Day	Night	Ldn	Lmax
				dB(A)				dB(A)				dB			
49	San Jose 40	-	1.FI	-	-	-	-	57.4	54.1	60.8	0.0	-	-	-	-
			2.FI	-	-	-	-	63.5	60.9	67.5	0.0	-	-	-	-
50	San Jose 41	-	1.FI	-	-	-	-	56.7	51.9	59.2	0.0	-	-	-	-
51	San Jose 42	-	1.FI	-	-	-	-	56.8	52.0	59.3	0.0	-	-	-	-
			2.FI	-	-	-	-	62.4	58.4	65.4	0.0	-	-	-	-
52	San Jose 43	-	1.FI	-	-	-	-	55.3	51.3	58.3	0.0	-	-	-	-
53	San Jose 44	-	1.FI	-	-	-	-	52.7	48.3	55.4	0.0	-	-	-	-
			2.FI	-	-	-	-	59.8	56.8	63.5	0.0	-	-	-	-
54	San Jose 45	-	1.FI	-	-	-	-	45.8	42.2	49.1	0.0	-	-	-	-
			2.FI	-	-	-	-	50.6	49.2	55.5	0.0	-	-	-	-
55	San Jose 46	-	1.FI	-	-	-	-	47.5	41.3	49.1	0.0	-	-	-	-
			2.FI	-	-	-	-	52.0	48.0	55.0	0.0	-	-	-	-

## Receiver list - Operation Phase 1 &amp; 2 &amp; Construction Phase 3

No.	Receiver name	Building side	Floor	Limit				Level				Conflict			
				Day	Night	Ldn	Lmax	Day	Night	Ldn	Lmax	Day	Night	Ldn	Lmax
				dB(A)				dB(A)				dB			
1	Campbell 1	-	1.FI	-	-	-	-	54.8	41.0	53.9	0.0	-	-	-	-
2	Elderly Care Home	North w	1.FI	-	-	-	-	78.4	48.9	76.6	0.0	-	-	-	-
			2.FI	-	-	-	-	78.3	48.2	76.6	0.0	-	-	-	-
			3.FI	-	-	-	-	78.0	46.2	76.3	0.0	-	-	-	-
			4.FI	-	-	-	-	77.7	46.2	76.0	0.0	-	-	-	-
			5.FI	-	-	-	-	77.6	45.9	75.9	0.0	-	-	-	-
			6.FI	-	-	-	-	77.5	48.7	75.8	0.0	-	-	-	-
			7.FI	-	-	-	-	77.4	47.7	75.7	0.0	-	-	-	-
3	Los Gatos 1	-	1.FI	-	-	-	-	56.2	35.3	54.6	0.0	-	-	-	-
4	Los Gatos 2	-	1.FI	-	-	-	-	56.8	36.2	55.2	0.0	-	-	-	-
5	Los Gatos 3	-	1.FI	-	-	-	-	49.3	31.1	47.8	0.0	-	-	-	-
6	Los Gatos 4	-	1.FI	-	-	-	-	49.2	31.5	47.7	0.0	-	-	-	-
7	Los Gatos 5	-	1.FI	-	-	-	-	57.4	34.2	55.8	0.0	-	-	-	-
8	Los Gatos 6	-	1.FI	-	-	-	-	57.2	34.0	55.5	0.0	-	-	-	-
9	Los Gatos 7	-	1.FI	-	-	-	-	57.9	35.7	56.3	0.0	-	-	-	-
10	San Jose 1	-	1.FI	-	-	-	-	72.2	58.3	71.2	0.0	-	-	-	-
			2.FI	-	-	-	-	72.0	57.7	71.0	0.0	-	-	-	-
11	San Jose 2	-	1.FI	-	-	-	-	73.2	55.0	71.8	0.0	-	-	-	-
			2.FI	-	-	-	-	73.2	54.4	71.7	0.0	-	-	-	-
12	San Jose 3	-	1.FI	-	-	-	-	74.8	56.7	73.3	0.0	-	-	-	-
			2.FI	-	-	-	-	74.7	55.8	73.2	0.0	-	-	-	-
13	San Jose 4	-	1.FI	-	-	-	-	75.4	51.3	73.7	0.0	-	-	-	-
			2.FI	-	-	-	-	75.3	50.8	73.7	0.0	-	-	-	-
14	San Jose 5	-	1.FI	-	-	-	-	75.9	51.1	74.2	0.0	-	-	-	-
			2.FI	-	-	-	-	75.9	50.2	74.1	0.0	-	-	-	-
15	San Jose 6	-	1.FI	-	-	-	-	73.4	47.0	71.7	0.0	-	-	-	-
			2.FI	-	-	-	-	71.0	45.1	69.3	0.0	-	-	-	-
16	San Jose 7	-	1.FI	-	-	-	-	70.3	45.6	68.6	0.0	-	-	-	-
			2.FI	-	-	-	-	69.1	45.2	67.4	0.0	-	-	-	-
17	San Jose 8	-	1.FI	-	-	-	-	66.8	45.0	65.2	0.0	-	-	-	-
			2.FI	-	-	-	-	64.5	44.5	62.9	0.0	-	-	-	-
18	San Jose 9	-	1.FI	-	-	-	-	68.1	44.6	66.4	0.0	-	-	-	-
			2.FI	-	-	-	-	64.6	44.5	63.1	0.0	-	-	-	-
19	San Jose 10	-	1.FI	-	-	-	-	74.4	41.1	72.7	0.0	-	-	-	-
20	San Jose 11	-	1.FI	-	-	-	-	76.1	42.4	74.3	0.0	-	-	-	-
21	San Jose 12	-	1.FI	-	-	-	-	76.8	41.4	75.0	0.0	-	-	-	-
22	San Jose 13	-	1.FI	-	-	-	-	76.3	42.7	74.6	0.0	-	-	-	-
23	San Jose 14	-	1.FI	-	-	-	-	71.0	42.8	69.3	0.0	-	-	-	-
24	San Jose 15	-	1.FI	-	-	-	-	69.2	41.9	67.5	0.0	-	-	-	-
25	San Jose 16	-	1.FI	-	-	-	-	70.2	43.5	68.5	0.0	-	-	-	-
26	San Jose 17	-	1.FI	-	-	-	-	69.9	43.6	68.2	0.0	-	-	-	-
27	San Jose 18	-	1.FI	-	-	-	-	73.9	44.3	72.2	0.0	-	-	-	-
28	San Jose 19	-	1.FI	-	-	-	-	73.5	45.5	71.8	0.0	-	-	-	-
29	San Jose 20	-	1.FI	-	-	-	-	72.4	43.2	70.7	0.0	-	-	-	-
30	San Jose 21	-	1.FI	-	-	-	-	73.8	45.3	72.1	0.0	-	-	-	-
31	San Jose 22	-	1.FI	-	-	-	-	74.0	45.6	72.3	0.0	-	-	-	-
32	San Jose 23	-	1.FI	-	-	-	-	72.9	44.5	71.2	0.0	-	-	-	-
33	San Jose 24	-	1.FI	-	-	-	-	70.2	41.4	68.5	0.0	-	-	-	-
34	San Jose 25	-	1.FI	-	-	-	-	70.7	42.4	69.0	0.0	-	-	-	-
35	San Jose 26	-	1.FI	-	-	-	-	68.8	40.5	67.0	0.0	-	-	-	-
36	San Jose 27	-	1.FI	-	-	-	-	69.6	41.7	67.9	0.0	-	-	-	-
37	San Jose 28	-	1.FI	-	-	-	-	70.3	42.6	68.6	0.0	-	-	-	-
38	San Jose 29	-	1.FI	-	-	-	-	67.8	41.3	66.1	0.0	-	-	-	-
39	San Jose 30	-	1.FI	-	-	-	-	69.4	40.9	67.7	0.0	-	-	-	-
40	San Jose 31	-	1.FI	-	-	-	-	70.1	45.3	68.4	0.0	-	-	-	-
41	San Jose 32	-	1.FI	-	-	-	-	69.0	39.5	67.3	0.0	-	-	-	-
			2.FI	-	-	-	-	71.7	40.1	69.9	0.0	-	-	-	-
42	San Jose 33	-	1.FI	-	-	-	-	68.1	41.0	66.4	0.0	-	-	-	-
43	San Jose 34	-	1.FI	-	-	-	-	65.4	40.6	63.7	0.0	-	-	-	-
44	San Jose 35	-	1.FI	-	-	-	-	66.8	41.4	65.1	0.0	-	-	-	-
45	San Jose 36	-	1.FI	-	-	-	-	64.3	54.7	64.5	0.0	-	-	-	-
46	San Jose 37	-	1.FI	-	-	-	-	63.5	55.1	64.1	0.0	-	-	-	-
47	San Jose 38	-	1.FI	-	-	-	-	64.0	56.1	64.8	0.0	-	-	-	-
			2.FI	-	-	-	-	69.3	61.8	70.3	0.0	-	-	-	-
48	San Jose 39	-	1.FI	-	-	-	-	64.1	55.3	64.5	0.0	-	-	-	-

## Receiver list

No.	Receiver name	Building side	Floor	Limit				Level				Conflict			
				Day	Night	Ldn	Lmax	Day	Night	Ldn	Lmax	Day	Night	Ldn	Lmax
				dB(A)				dB(A)				dB			
49	San Jose 40	-	1.FI	-	-	-	-	63.9	53.9	63.9	0.0	-	-	-	-
			2.FI	-	-	-	-	69.3	61.2	70.0	0.0	-	-	-	-
50	San Jose 41	-	1.FI	-	-	-	-	64.5	51.9	63.8	0.0	-	-	-	-
51	San Jose 42	-	1.FI	-	-	-	-	64.9	52.0	64.1	0.0	-	-	-	-
			2.FI	-	-	-	-	70.4	58.4	69.8	0.0	-	-	-	-
52	San Jose 43	-	1.FI	-	-	-	-	63.9	51.3	63.2	0.0	-	-	-	-
53	San Jose 44	-	1.FI	-	-	-	-	62.1	48.3	61.2	0.0	-	-	-	-
			2.FI	-	-	-	-	69.1	56.8	68.5	0.0	-	-	-	-
54	San Jose 45	-	1.FI	-	-	-	-	56.7	42.2	55.7	0.0	-	-	-	-
			2.FI	-	-	-	-	64.6	48.9	63.4	0.0	-	-	-	-
55	San Jose 46	-	1.FI	-	-	-	-	59.7	41.3	58.2	0.0	-	-	-	-
			2.FI	-	-	-	-	67.4	48.0	65.9	0.0	-	-	-	-