# 4.4 NOISE

This section addresses construction generated noise, the impacts of noise generated by additional traffic and the placement of development near noise producing sources.

## 4.4.1 Setting

**a. Overview of Sound Measurement**. Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound power levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

The sound pressure level is measured on a logarithmic scale with the 0 dB level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dB, and a sound that is 10 dB less than the ambient sound level has no effect on ambient noise. Because of the nature of the human ear, a sound must be about 10 dB greater than the reference sound to be judged as twice as loud. In general, a 3 dB change in community noise levels is noticeable, while 1-2 dB changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while those along arterial streets are in the 50-60+ dBA range. Normal conversational levels are in the 60-65 dBA range, and ambient noise levels greater than 65 dBA can interrupt conversations.

Noise levels typically attenuate (or drop off) at a rate of 6 dB per doubling of distance from point sources such as industrial machinery. Noise from lightly traveled roads typically attenuates at a rate of about 4.5 dB per doubling of distance. Noise from heavily traveled roads typically attenuates at about 3 dB per doubling of distance.

In addition to the instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. One of the most frequently used noise metrics that considers both duration and sound power level is the equivalent noise level (Leq). The Leq is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). Typically, Leq is summed over a one-hour period.

The time period in which noise occurs is also important since noise that occurs at night tends to be more disturbing than noise that occurs during the daytime. Two commonly used noise metrics – the Day-Night average level (Ldn) and the Community Noise Equivalent Level (CNEL) - recognize this fact by weighting hourly Leqs over a 24-hour period. The Ldn is a 24-hour average noise level that adds 10 dB to actual nighttime (10 P.M. to 7 A.M.) noise levels to account for the greater sensitivity to noise during that time period. The CNEL is identical to the Ldn, except it also adds a 5 dB penalty for noise occurring during the evening (7 P.M. to 10 P.M.).

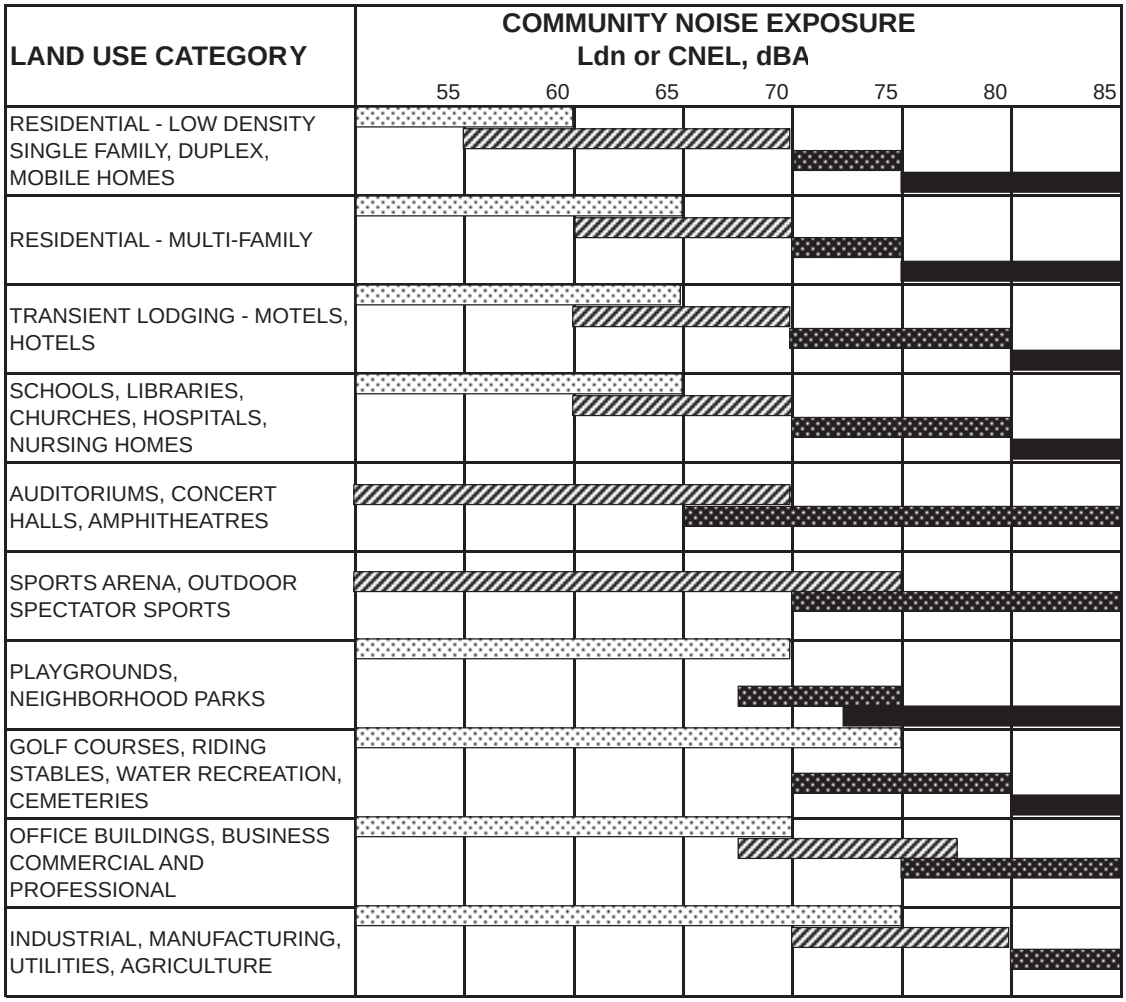
**b. Sensitive Receptors.** Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. Residences, hospitals, schools, guest lodging, and libraries are most sensitive to noise intrusion and therefore have more stringent noise exposure targets than manufacturing or agricultural uses that are not subject to impacts such as sleep disturbance. Sensitive receptors in the Hospital District include patients at Community Memorial Hospital and residences located in the vicinity of the Hospital District, north of Loma Vista Road, about 250 feet to the north, or east of Brent Street, about 200 feet to the east. The closest school to the Hospital District is Saint Bonaventure High School, located at 3167 Telegraph Rd., 0.4 miles from the Hospital District. In addition, the Ventura County Medical Center is located 0.4 miles northeast of the Hospital District. Figure 4.4-1 shows normally acceptable, conditionally acceptable, normally unacceptable, and conditionally unacceptable noise levels for sensitive receptors.

**c. Noise Sources.** Noise sources often include roadways, construction sites, industrial uses, etc. The primary noise sources in the vicinity of the Hospital District are roadways such as Loma Vista Road, Main Street, and Brent Street. Existing noise levels within the Hospital District were measured with a sound meter on March 5, 2009 and July 27, 2010. Measurements were taken between 12:00 pm and 3:00 P.M. in 20 minute increments. Measured noise levels are identified in Table 4.4-1.

**Table 4.4-1**
**Existing Noise Levels**

| Location | Noise Level (dBA Leq) |
|---|---|
| Glen Street Parking Lot | 57.7 |
| Southeast Corner of Cabrillo Drive and Main Street | 67.0 |
| North Brent Street between Cabrillo Drive and Glen Street | 55.5 |
| Southwest corner of Loma Vista Road and North Brent Street | 64.5 |
| Cabrillo Drive near the closest residential neighborhood | 58.6 |
| Telegraph Road in front of Saint Bonaventure School | 69.6 |
| Mills between Loma Vista and Telegraph | 62.0 |
| Seaward between Main and Thompson | 64.7 |
| Main between Seaward and Loma Vista | 67.0 |
| Loma Vista between Main and Mills | 65.4 |
| Telegraph between Main and Mills | 65.9 |

*Source: Rincon Consultants, 2009 and 2010*
*One measurement was taken at each location.*




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.

NORMALLY UNACCEPTABLE
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design

CONDITIONALLY ACCEPTABLE
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

CLEARLY UNACCEPTABLE
New construction or development should generally not be undertaken.

*Source: Guidelines for the Preparation and Content of Noise Elements of the General Plan, California Office of Planning and Research, 1998.*

Land Use/Noise Compatibility Matrix

Figure 4.4-1

**d. Regulatory Setting.** Guidelines for noise compatible land uses, based upon the City of Ventura General Plan "Our Healthy and Safe Community" Element noise guidelines are shown on Figure 4.4-1. The objective of noise compatibility guidelines is to provide the community with a means of judging the noise environment that it deems to be generally acceptable. The noise matrix is grouped into land uses that rate the "acceptability" of noise for those uses. Denotation of a land use as "clearly acceptable" implies that the highest noise level in that band is the maximum desirable for existing or conventional construction that does not incorporate any special acoustical treatment. In general, evaluation of land use that fall into the "normally acceptable," "conditionally acceptable," or "normally unacceptable" noise environments should analyze other potential factors that would affect the noise environment. These include consideration of the type of noise source, the sensitivity of the noise receptor, the noise reduction likely to be provided by structures, and the degree to which the noise source may interfere with speech, sleep, or to other activities characteristic of the land use.

The Ventura Municipal Code noise standards shown in Table 4.4-2 apply to any noise-generating activity that exceeds the applicable level for a cumulative period of more than 30 minutes in any hour at a property line. For noise levels that last less than 30 minutes, the following standards apply: maximum noise levels equal to the value of the noise standard plus 5 dB for a cumulative period of no more than 15 minutes in any hour, 10 dB for a cumulative period of no more than 5 minutes in any hour, 15 dB for a cumulative period of no more than 1 minute in any hour, or 20 dB for any period of time. If the ambient sound level exceeds the allowable exterior standard, the ambient levels become the standard.

**Table 4.4-2**
**City of Ventura Exterior Noise Standards**

| Time Period | Zone I | Zone II | Zone III | Zone IV |
|---|---|---|---|---|
| 7 A.M. to 10 P.M. | 50 dBA | 50 dBA | 60 dBA | 70 dBA |
| 10 P.M. to 7 A.M. | 45 dBA | 45 dBA | 55 dBA | 70 dBA |

*Source: City of Ventura Municipal Code § 10.650.130B.*
*Designated Zone I: Noise sensitive properties*
*Designated noise zone II: Residential properties*
*Designated noise zone III: Commercial properties*
*Designated noise zone IV: Industrial and agricultural properties*

For all multi-family residential units within zones I or II, daytime (7 A.M.–10 P.M.) interior noise levels shall not exceed 45 dBA and nighttime (10 P.M.-7 A.M.) shall not exceed 40 dBA (Section 10.650.130 C.1).

Section 10.650.150 of the Ordinance exempts construction activities from the above standards, provided that they are conducted between 7 A.M. and 8 P.M. Construction activity is permitted between the hours of 8 P.M. and 7 A.M., provided that the noise levels do not exceed the standards specified in Table 4.4-2.

Section 10.650.150. C of the Ordinance states that noise generated by machinery, equipment, pumps, fans, air-conditioning apparatus or tools of any nature or similar mechanical device shall not be operated so as to create any noise which exceeds the noise level limits (see Table 4.4-2). Noise generated during emergency work is exempt from the ordinance pursuant to Section 10.650.170.A of the Municipal Code.

City of Ventura 2005 General Plan. The 2005 General Plan sets the interior noise standard for habitable rooms of new residences at 45 dBA CNEL (Policy 7E, Action 7.32). The exterior level for usable outdoor recreation space (patios, gardens, etc.) of both new single and multi-family residential structures is 65 dBA CNEL (Policy 7E, Action 7.32).

Action 7.32 also requires an acoustical analysis and mitigation prior to development of any residences within the 60 dBA CNEL contour and incorporation of appropriate mitigation to reduce noise in residential exterior usable spaces to 65 dBA CNEL or lower and reduce interior noise levels at residences to 45 dBA CNEL or lower.

## 4.8.2 Impact Analysis

**a. Methodology and Significance Thresholds.** The analysis of noise impacts focuses upon the District's impact to surrounding noise-sensitive land uses and the impact of existing noise sources upon the hospital.

Roadway noise impacts were based on projected traffic volumes from the General Plan EIR for the year 2025 plus Project (see Section 4.5, *Traffic and Parking*). Baseline and future (2025) conditions were used in this analysis. To determine roadway-generated impacts, the Federal Highway Administration's (FHWA) Traffic Noise Model (TNM) Version 2.2 was used.

The average daily traffic (ADT) volumes were used for the Hospital District segments and a vehicle use mix was completed based on current conditions and compared to the FHWA 2007 *Annual Average Daily Truck Traffic on the California State Highway System* report (2008) for accuracy. A vehicle mix of 90% automobiles, 8% medium trucks and 2% heavy trucks was used. Next, the ADT was converted to peak hour vehicles by dividing the ADT by 10. This factor was used because peak hour traffic generally represents about 10% of overall ADT.

The analysis also uses noise contour projections developed for the 2005 General Plan EIR. The noise contours represent the maximum possible traffic noise levels at locations within them (i.e., they do not account for building placement or traffic speeds, nor include the attenuating effects of walls, structures, and terrain features that might intervene between the roads and any location of interest). Noise contours were developed for the baseline year (2005) and the future 2025 potential development conditions for the 2005 General Plan FEIR (Figure 4.10-3 and Figure 4.10-4 of the 2005 General Plan), indicating that noise levels in the vicinity of the project area do not change substantially. Noise along Loma Vista Road, Telegraph Road and Main Street is forecast at or above 60 dBA CNEL in 2025. However, noise in the majority of the Hospital District is below 60 dBA CNEL.

For the purpose of this analysis, a significant impact would occur if growth accommodated in the Hospital District would result in any of the following conditions:

- *Exposure of persons to or generation of noise levels in excess of standards established in the 2005 General plan or noise ordinance*
- *Exposure of persons to or generation of excessive ground-borne noise levels*
- *A substantial permanent increase in ambient noise levels above levels existing without the CMH Code*
- *A substantial temporary or periodic increase in ambient noise levels above levels existing without the CMH Code*

For traffic-related noise, impacts are considered significant if traffic-generated noise associated with development accommodated by the CMH Code would result in exposure of sensitive receptors to unacceptable noise levels. The May 2006 Transit Noise and Vibration Impact Assessment created by the Federal Transit Administration (FTA) recommendations were used to determine whether or not increases in roadway noise would be considered significant. The allowable noise exposure increase changes with increasing noise exposure, such that lower ambient noise levels have a higher allowable noise exposure increase.

Table 4.4-3 shows the significance thresholds for increases in traffic related noise levels caused either by the Project alone or by cumulative development.

**Table 4.4-3**
**Significance of Changes in Operational Roadway Noise Exposure**

| dBA CNEL | |
|---|---|
| **Existing Noise Exposure** | **Allowable Noise Exposure Increase** |
| 45-50 | 7 |
| 50-55 | 5 |
| 55-60 | 3 |
| 60-65 | 2 |
| 65-70 | 1 |
| 75+ | 0 |

*Source: Federal Transit Administration (FTA), May 2006*
*Note: CNEL and Ldn are roughly equivalent. FTA uses Ldn; however, CNEL is used for this Project.*

If the hospital, residential development or other sensitive receptors would be exposed to traffic noise increases exceeding the above criteria, impacts would be considered significant. Impacts related to onsite activities are considered significant if Project-related activities would create noise exceeding the standards as identified by the applicable noise zone for the Project site.

Periodic noise increases associated with CMH Code implementation would primarily result from future construction activity. Construction noise is considered "substantial" if it would be in conflict with the City Noise Ordinance, which allows noise-generating construction activity between the hours of 7 A.M. and 8 P.M.

**b. Impacts and Mitigation Measures.**

**Impact N-1 Phase I and Phase II growth facilitated by the CMH Code would increase traffic-related noise. Traffic noise increases due to development facilitated by the CMH Code would not exceed FTA standards. Therefore, impacts would be Class III, *less than significant.***

Development facilitated by the CMH Code would increase traffic-generated noise on roadways in the Hospital District vicinity. Estimated peak hour traffic volumes were used to model the change in noise levels resulting from increased traffic on five roadway segments.

Roadways were chosen based on proximity to the Hospital District and proximity to sensitive receptor populations. Sensitive receptors that may be affected by the increase in roadway noise include residents to the east of the Hospital District; patients at CMH and at Ventura County Medical Center, located 0. 22 miles northeast of the Hospital District; and students at Saint Bonaventure School, located 0.15 miles southeast of the Hospital District (all as measured from the closest project site boundary). The following roadway segments were chosen for noise analysis.

- Mills Road between Loma Vista Road and Telegraph Road
- Seaward Avenue between Main Street and Thompson Boulevard
- Main Street between Seaward Avenue and Loma Vista Road
- Loma Vista Road between Main Street and Mills Road
- Telegraph Road between Main Street and Mills Road

As discussed in Section 4.5, *Traffic and Parking*, Phase I development would represent approximately 30% of traffic associated with the Project and Phase II development would represent approximately 70% of traffic associated with the Project. Table 4.4-4 below compares existing (2007) modeled noise levels (2005 General Plan baseline traffic volumes updated with 2007 counts) and existing measured (field measured in 2009 and 2010) on these five roadways near the Hospital District to projected noise levels in 2025 with growth forecast under the CMH Code. This growth includes both Phase I and Phase II. Therefore, approximately 30% of the anticipated change in noise attributed to the Project would be due to Phase I development and 70% of the anticipated change in noise attributed to the Project would be due to Phase II development.

Generally, noise from heavily traveled roadways drops off by about 3 dB for every doubling of distance. Therefore, noise levels at distances greater than 50 feet from the roadway centerlines would be lower than those shown. As discussed above in the *Impact Analysis* section, the allowable increase where ambient noise is 60-65 dBA CNEL would be 2 dB and the allowable increase where ambient noise is 65-70 dBA would be 1 dB. Traffic-generated noise levels affecting each analyzed intersection are discussed below.

**Table 4.4-4**
**Traffic Generated Noise**

| Street Segment | Estimated Noise Level (dBA CNEL) | | | Change from 2007 Baseline (dB) | Change from 2010 Baseline (dB) | Applicable Threshold (dB) | Significant Impact? |
|---|---|---|---|---|---|---|---|
| | 2007 Modeled Baseline | 2010 Measured Baseline | 2025 with project | | | | |
| Mills between Loma Vista and Telegraph | 64.0 | 62.0 | 63.8 | (0.2) | 1.8 | 2 | No |
| Seaward between Main and Thompson | 64.6 | 64.7 | 65.0 | 0.4 | 0.3 | 2 | No |
| Main between Seaward and Loma Vista | 67.1 | 67.0 | 67.2 | 0.1 | 0.2 | 1 | No |
| Loma Vista between Main and Mills | 65.6 | 65.4 | 66.2 | 0.6 | 0.8 | 1 | No |
| Telegraph between Main and Mills | 65.5 | 65.9 | 66.2 | 0.7 | 0.3 | 1 | No |

*See Appendix E for noise calculation worksheets.*

Mills Road between Loma Vista Road and Telegraph Road. Modeled roadway noise associated with cumulative and project traffic would decrease noise on this roadway segment by 0.2dBA. Sensitive receptors along this roadway segment include residences approximately 50 feet from the roadway centerline. Under cumulative plus project conditions, the noise level would be about 64 dBA CNEL at a distance of 50 feet from the roadway centerline. This noise level exceeds the normally allowable noise level for single family units (60 dBA CNEL), but does not exceed the normally allowable noise level for multi-family units (65 dBA CNEL). Since the CMH Code would not measurably contribute to cumulative noise increases, the CMH Code would not significantly affect noise sensitive receptors. The project-related decrease of 0.2 dB from the 2007 modeled baseline and the project-related increase of 1.8 dB from the 2010 measured baseline would be less than the applicable threshold of 2 dB for ambient noise levels between 60 and 65 dBA CNEL. Therefore, project-generated traffic would not significantly affect sensitive receptors along Mills Road.

Seaward Avenue between Main Street and Thompson Boulevard. Modeled roadway noise associated with traffic generated by cumulative development and the project would increase noise on this roadway segment by 0.4 dB. Sensitive receptors along this roadway segment include residences approximately 50 feet from the roadway centerline. Under cumulative plus project conditions, the noise level would be about 65 dBA CNEL at a distance of 50 feet from the roadway centerline. This noise level exceeds the normally acceptable noise level for single family units (60 dBA CNEL) and the normally allowable noise level for multi-family units (65 dBA CNEL). However, the CMH Code-related increase of 0.4 dB from the 2007 modeled baseline and increase of 0.3 dB from the 2010 measured baseline would be less than the applicable threshold of 2 dB where ambient noise levels are between 65 and 70 dBA CNEL.

Therefore, project-generated traffic would not significantly affect sensitive receptors along Seaward Avenue.

Main Street between Seaward Avenue and Loma Vista Road. Modeled roadway noise associated with traffic generated by cumulative development and the project would increase noise on this roadway segment by 0.1 dB. Sensitive receptors along this roadway segment include residences approximately 50 feet from the roadway centerline. Under cumulative plus project conditions, the noise level would be about 67 dBA CNEL at a distance of 50 feet from the roadway centerline. This noise level exceeds the normally allowable noise level for single family units (60 dBA CNEL) and the normally allowable noise level for multi-family units (65 dBA CNEL). However, the CMH Code-related increase of 0.1 dB from the 2007 modeled baseline and the increase of 0.2 dB from the 2010 measured baseline would be less than the applicable threshold of 1 dB where ambient noise levels are between 65 and 70 dBA CNEL. Therefore, project-generated traffic would not significantly affect sensitive receptors along Main Street.

Loma Vista Road between Main Street and Mills Road. Modeled roadway noise associated with traffic generated by cumulative development and the project would increase noise on this roadway segment by 0.6 dB. Sensitive receptors along this roadway segment include Ventura County Medical Center, approximately 50 feet from the roadway centerline. In addition, Loma Vista Elementary School is located about 50 feet north of the centerline; however, there are about 350 feet of athletic fields between the closest building and the traffic on Loma Vista Road. Under cumulative plus project conditions, the noise level would be about 66 dBA CNEL at a distance of 50 feet from the roadway centerline. This noise level exceeds the normally acceptable noise level for hospitals (65 dBA CNEL). However, the CMH Code-related increase of 0.6 dB from the 2007 modeled baseline and increase of 0.8 dB from the 2010 measured baseline would be less than the applicable threshold of 1 dB where ambient noise is between 65 and 70 dBA CNEL. Therefore, project-generated traffic would not significantly affect sensitive receptors along Loma Vista Road.

Telegraph Road between Main Street and Mills Road. Modeled roadway noise associated with traffic generated by cumulative development and the project would increase noise on this roadway segment by 0.7 dB. Sensitive receptors along this roadway segment include residents approximately 50 feet from the roadway centerline and St. Bonaventure High School approximately 50 feet from the roadway centerline. Under cumulative plus project conditions, the noise level would be about 66 dBA CNEL at a distance of 50 feet from the roadway centerline. This noise level exceeds the normally allowable noise level for schools (65 dBA) and the normally allowable noise level for single family housing (60 dBA). However, the CMH Code-related increase of 0.6 dB from the 2007 modeled baseline and increase of 0.3 dB from the 2010 measured baseline would be less than the applicable threshold of 1 dB where ambient noise levels are between 65 and 70 dB. Therefore, project-generated traffic would not significantly affect sensitive receptors along Telegraph Road.

Because noise levels would not exceed the thresholds listed in Table 4.4-3, impacts would not be significant. The proposed hospital would be buffered from noise increases along Loma Vista Road by the existing hospital building. In addition, the proposed hospital would be about 500 feet away from traffic noise generated along Telegraph Road. Moreover, pursuant to General

Plan Figure 7-3, the proposed Hospital does not lie within a contour of ≥ 60 dBA CNEL under 2025 conditions. Therefore, no mitigation is necessary to reduce interior ambient noise levels within the hospital.

Portions of the District are, however, located within the 60 dBA CNEL contour identified in the 2005 General Plan. In addition, based on noise measurements taken in March 2009 (see Table 4.4-1), the noise levels would be above 60 dBA CNEL on the southeast corner of Cabrillo Drive and Main Street, the southwest corner of Loma Vista Road and North Brent Street, and telegraph Road in front of Saint Bonaventure School. Though no residential development is currently proposed, residential uses are permitted as shown in Table 2-2 in Section 2.0, *Project Description*. If in the future any residential development is proposed under the CMH Code along Loma Vista Road or in the southern portion of the Hospital District, mitigation would be required based on 2005 General Plan Action 7.32. Action 7.32 requires acoustical analyses for new residential developments within the mapped 60 dBA CNEL contour and mitigation necessary to ensure that:

- *Exterior noise in exterior spaces of new residences and other noise sensitive uses that are used for recreation (such as patios and gardens) does not exceed 65 dBA CNEL; and*
- *Interior noise in habitable rooms of new residences does not exceed 45 dBA CNEL with all windows closed.*

These levels can be achieved through appropriate building orientation and use of noise attenuating building materials. Therefore, because the 2005 General Plan requires acoustical analysis and mitigation for areas within the 60 dBA CNEL contour, any future residential development would be evaluated at if and when it is proposed. Therefore, the impact is less than significant.

**Mitigation Measures.** No Mitigation is necessary and the impact is less than significant without mitigation.

**Significance After Mitigation.** The impact is less than significant with Mitigation.

**Impact N-2** **Construction of individual projects under Phase I and Phase II of the CMH Code could intermittently generate high noise levels. This may affect sensitive receptors near construction sites. However compliance with Noise Ordinance restrictions on construction timing would reduce this impact to a Class III, *less than significant* level. Nevertheless, mitigation is recommended to reduce noise generated during construction.**

Construction noise from individual projects could affect adjacent noise-sensitive land uses. As required by the City's Noise Ordinance (Sect. 10.650.150) construction noise is limited to between the hours of 7A.M. and 8 P.M. All future development would be subject to the City's Noise Ordinance requirements.

As shown in Table 4.4-5, the noise level associated with heavy equipment typically ranges from about 76 to 101 dBA at 50 feet from the source. Such noise levels can be disturbing, particularly

to noise-sensitive uses such as residences, schools, and hospitals. The grading/excavation phase of construction tends to create the highest construction noise levels because of the operation of heavy equipment. In addition, there would be approximately 23 truck trips per day at the site during demolition and 20 truck trips per day during site grading that would create noise levels during construction of the proposed project.

**Table 4.4-5**
**Typical Noise Levels at Construction Sites**

| Equipment Onsite | Average Noise Level at 50 Feet |
|---|---|
| Pile Driver | 101 dBA |
| Air Compressor | 81 dBA |
| Concrete Mixer | 85 dBA |
| Saw | 76 dBA |
| Scraper | 89 dBA |

*Source: Transit Noise and Vibration Impact Assessment, Harris Miller Miller & Hanson Inc., May 2006.*

Individual construction projects would be expected to generate noise levels similar to those shown in Table 4.4-5. Such levels would not be permanent, but would exceed ambient noise levels given that ambient noise was measured in the 55 to 70 dBA range. However, it should be noted that Pile Driving is not proposed as a part of this project.

Sensitive receptors in the Hospital District include patients at Community Memorial Hospital and residences located in the vicinity of the Hospital District, north of Loma Vista Road, about 250 feet to the north, or east of Brent Street, about 200 feet to the east. The closest school to the Hospital District is Saint Bonaventure High School, located at 3167 Telegraph Rd., 0.4 miles from the Hospital District. In addition, the Ventura County Medical Center is located 0.4 miles northeast of the Hospital District. Table 4.4-6 shows anticipated noise levels at these sensitive receptor locations during construction.

**Table 4.4-6**
**Anticipated Noise Levels at Sensitive Receptor Locations**

| Sensitive Receptor | Distance from Plan Area | Anticipated Noise Level |
|---|---|---|
| Saint Bonaventure High School | 2,112 feet | 68.5 dBA |
| Ventura County Medical Center | 2,112 feet | 68.5 dBA |

**Table 4.4-6**
**Anticipated Noise Levels at Sensitive Receptor Locations**

| Sensitive Receptor | Distance from Plan Area | Anticipated Noise Level |
|---|---|---|
| Residents | 200 feet | 89 dBA |
| Community Memorial Hospital | 50 feet | 89 dBA |

*Source: Rincon Consultants, Contour Model, 2010.*

The City's Noise Ordinance exempts construction activities from the standards shown in Table 4.4-2 in the *Setting*, provided that they are conducted between 7 A.M. and 8 P.M. Assuming compliance with these timing restrictions, noise associated with construction of individual projects would not be significant.

**Mitigation Measures.** Mitigation is not required. However, because the Hospital District contains an existing hospital that will be occupied throughout construction and because construction will be of a relatively long duration (3-4 years), it is recommended that noise attenuation techniques be practiced throughout construction. The following noise reduction techniques are recommended for consideration.

**N-2** **Construction Noise.** Though no significant construction-related noise impacts are required, the following noise reduction techniques are recommended to further reduce construction generated noise. Prior to issuance of any Grading, Building Permit or start of construction, the Applicant shall provide, to the satisfaction of the City's Building Official, a Noise Mitigation and Monitoring Program. Such plan shall ensure that the proposed project provides the following:

- Construction contracts shall specify that all construction equipment, fixed or mobile, shall to the extent feasible be equipped with mufflers maintained according to manufacturer's specifications and other state required noise attenuation devices.
- Property owners and occupants located within 0.25-mile of the Project construction site shall be sent a notice, at least 15 days prior to commencement of construction, regarding the construction schedule of the proposed Project. A sign, legible at a distance of 50 feet, shall also be posted at the Project construction site. All notices and signs shall be reviewed and approved by the City's Building Official, prior to mailing or posting and shall indicate the dates and duration of construction activities, as well as provide the contact name and a telephone number of the Noise Disturbance Coordinator where residents can inquire about the construction process and register complaints.

- The Applicant shall provide, to the satisfaction of the City's Building Official, a qualified "Noise Disturbance Coordinator" who shall be responsible for receiving, registering, and responding to any complaints about construction noise. When a complaint is received, the Coordinator shall notify the City within 24-hours of the complaint and determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall implement reasonable measures to resolve the compliant, as deemed acceptable by the City's Building Official. All notices that are sent to residential units within 0.25-mile of the construction site and all signs posted at the construction site shall include the contact name and the telephone number for the Disturbance Coordinator.
- Prior to issuance of a Grading, Building Permit or start of construction, the Applicant shall demonstrate to the satisfaction of the City's Building Official how construction noise reduction methods such as shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and electric air compressors and similar power tools, rather than diesel equipment, shall be used where feasible.
- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.

**Significance after Mitigation.** Impacts would be less than significant without mitigation assuming that construction activity occurs between the hours of 7 A.M. and 8 P.M.; however, implementation of additional noise reduction techniques would assist in reducing ambient noise levels for hospital patients, surrounding businesses and residential receptors.

**Impact N-3** **No residential uses are currently proposed; however, residential uses are an allowable use under the CMH Code. The potential future development of residential uses under Phase II in close proximity to commercial uses and parking structures could potentially expose sensitive receptors to normally unacceptable noise levels. With Mitigation Measure N-3, this is a Class II, *significant but mitigable,* impact.**

Phase I of the Project would include the new hospital building (356,000 sf and a net increase of 10 beds) and adaptive reuse of the existing hospital facilities (121,000 sf for non-essential hospital support services and 104,000 sf for new backfill medical office reuse). In addition, Phase I would include the addition of a 3,900 sf retail liner building (Building 18), which would be constructed adjacent the location of the future new garage and opposite the hospital open space plaza.

Phase II of the Project would include buildout of the remainder of the Hospital District, including remaining liner buildings, development along Loma Vista Road and Brent Street, and the new parking garage. Specifically, buildings 11, 12, 13, 14, 15, 16 & 17 (as shown on Figure 2-9 and in Table 2-3 in Section 2.0, *Project Description*), and the parking garage would be

constructed during Phase II. Phase II development is estimated to be about 162,950 square feet of medical office uses. Phase II has the potential to increase noise in the Hospital District due to medical office uses and the proposed parking garage. Noise associated with these uses could include conversations and noises typical of parking garages, including horns honking and car alarms. Noise typically associated with parking lots is shown in Table 4.4-7.

Existing residential neighborhoods are located north of Loma Vista Road, about 250 feet to the north, or east of Brent Street, about 200 feet to the east. In addition, though no residential development is currently proposed as part of the Project, upper story live/work and or multi-family dwellings are allowable uses indicated in Table 2-2 in Section 2.0, *Project Description*. These residential uses, if eventually developed, could be within 50 feet of the parking garage.

**Table 4.4-7**
**Parking Lot Noise Sources at 100 Feet**

| Source | Level (dBA) |
|---|---|
| Autos at 14 mph | 44 |
| Sweepers | 66 |
| Car Alarm Signal | 63 |
| Car Alarm Chirp | 48 |
| Car Horns | 63 |
| Door Slams | 58 |
| Talking | 30 |
| Radios | 58 |
| Tire Squeals | 60 |

*Source: Gordon Bricken & Associates, 1996. Estimates based on actual noise measurements taken at various parking lots.*

Development of residential uses in the future in close proximity to the helipad and parking garage, as well as other hospital and medical office uses, could expose sensitive receptors to noise in excess of those specified in the City Noise Ordinance (Sec. 10.650.130), as shown in Table 4.4-2, and above 70 dBA CNEL, the normally unacceptable range for residential uses. Action 7.32 of the 2005 General Plan requires an acoustical evaluation and mitigation to ensure that interior habitable spaces are at 45 dBA with the windows closed and that private exterior usable spaces do not exceed 65 dBA CNEL. Action 7.32 applies to the corridor of Loma Vista Road, but does not apply to Brent Street or the interior portion of the Hospital District, where residential development could eventually be developed within liner buildings. Therefore, future noise evaluation is recommended if residential development were proposed in the interior portion of the Hospital District, or along Brent Street.

**Mitigation Measures.** The following mitigation measure would reduce operational noise impacts to a less than significant level.

**N-3** **Acoustical Analyses**. Acoustical analyses shall be conducted for new residential developments within the Hospital District and shall incorporate mitigation necessary to ensure that:

- *Exterior noise in exterior spaces of new residences and other noise sensitive uses that are used for recreation (such as patios and gardens) does not exceed 65 dBA CNEL; and*
- *Interior noise in habitable rooms of new residences does not exceed 45 dBA CNEL with all windows closed.*

**Significance after Mitigation.** If residential uses are developed in the future, the potential for exposure to noise in excess of allowable levels would be less than significant with Mitigation Measure N-3, which would ensure that interior and exterior noise levels are within City standards for residential uses.

**Impact N-4** **Hospital development would involve the potential for noise generated by stationary equipment such as cooling towers, HVAC systems, emergency generators as well as other types of equipment. Compliance with municipal code requirements would result in a Class III, *less than significant* impact.**

Phase I of the Project would include the new hospital building (356,000 sf and a net increase of 10 beds) and adaptive reuse of the existing hospital facilities (121,000 sf for non-essential hospital support services and 104,000 sf for new backfill medical office reuse). In addition, Phase I would include the addition of a 3,900 sf retail liner building (Building 18), which would be constructed adjacent the location of the future new garage and opposite the hospital open space plaza. Construction of the new hospital building would include stationary equipment such as cooling towers and HVAC equipment. As discussed in the regulatory setting section, Section 10.650.150. C of the City's Noise Regulations states that noise generated by machinery, equipment, pumps, fans, air-conditioning apparatus or tools of any nature or similar mechanical device shall not be operated so as to create any noise which exceeds the noise level limits (see Table 4.4-2). The Hospital is considered a noise sensitive use and is located in Noise Zone I, which has an allowable noise level of 50 dBA between 7A.M. and 10 P.M., and 45 dBA between 10 P.M. and 7 A.M. (see Table 4.4-2). However, the existing ambient noise level exceeds the allowable noise level by up to 14.5 dBA at the southwest corner of Loma Vista Road at North Brent Street. Therefore, pursuant to the municipal code, installation of such equipment will not be allowed to generate noise in excess of the existing ambient noise levels. Common noise attenuation techniques include the use of parapets around rooftop equipment, as well as the use of solid block wall enclosures to reduce noise propagation by stationary equipment such as cooling tower blowers. The use of these types of noise attenuation techniques will facilitate compliance with noise ordinance requirements and the impact would be less than significant without mitigation.

The new hospital building is anticipated to have diesel powered emergency generators that would be operative in the event of a power outage to ensure that critical hospital operations are not interrupted. Emergency generators would be anticipated to be operational only in the event of an emergency or for routine testing to ensure the generators are working properly. Since the generators would not be operational on a regular basis and would only be operational for

routine testing and in the event of an emergency, these operations would not contribute to an exceedance of the allowable noise levels. Moreover, noise generated during emergency work is exempt from the ordinance pursuant to Section 10.650.170.A of the Municipal Code. Therefore, the project would have a less than significant impact with respect to noise from emergency generators.

**Mitigation Measures.** No mitigation is necessary.

**c. Cumulative Impacts.** As discussed in Section 3.0, *Environmental Setting*, buildout under the General Plan would add about 8,000 dwelling units and five million square feet of non-residential development. Impact N-1 addresses the cumulative change from existing conditions through 2025 due to projected growth under the 2025 General Plan (including the CMH Code). As such, Impact N-1 addresses cumulative impacts. As noted under Impact N-1, cumulative traffic noise increases along portions of Loma Vista Road and Main Street would potentially exceed adopted thresholds; however, continued implementation of 2005 General Plan actions 7.32 and 7.37, in combination with mitigation measures, would reduce cumulative impacts to a less than significant level.

With respect to cumulative construction impacts, there is only one building that is located close enough to contribute to localized cumulative construction noise. This is the Cancer Center, which is located at the southeast corner of Loma Vista Road and Brent Street, about 240 feet from the grading area. The Cancer Center is anticipated for completion later this year and would not occur concurrently with the hospital given the current schedule, which would not allow commencement of hospital construction until 2011. All other pending projects in the vicinity, as mentioned in Table 3-2, are located between 0.5 and one mile from the site. Subsequent Phase II projects would occur independently and are thus not likely to generate substantial amounts of construction noise. Lastly, as discussed above under Impact N-2, construction noise is limited to between the hours of 7 A.M. and 8 P.M as required by the City's Noise Ordinance (Sect. 10.650.150). All future development would be subject to the City's Noise Ordinance requirements. Thus, provided that construction activities occur within the 7 A.M. to 8 P.M. time frame, cumulative construction noise impacts would be less than significant.