

4.4 NOISE

Development under the Specific Plan, in combination with other development citywide, would result in noise impacts related to construction activities, traffic increases, and on-site activity. Demolition and construction noise would affect sensitive receptors adjacent to the site and in the surrounding area, but because these impacts would be short-term and limited in extent, this is considered significant but mitigable. The Specific Plan would accommodate increased traffic on nearby roadway corridors, which would cause roadway noise levels in the vicinity to increase. Such impacts would be considered significant and unavoidable. Cumulatively, the Specific Plan would contribute to existing roadway noise levels already in exceedance of the City standard. This is considered a significant and unavoidable impact.

4.4.1 Noise Setting

a. Overview of Sound Measurement. Sound is technically described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dBA higher than another is judged to be twice as loud; a sound 20 dBA higher four times as loud, and so forth. Everyday sounds normally range from 30 dB (very quiet) to 100 dB (very loud). In general, a 3 dB change in community noise levels is noticeable, while 1-2 dB changes are generally not perceived. Noise levels typically attenuate at a rate of 6 dBA 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 dBA per doubling of distance. Noise from heavily traveled roads typically attenuates at about 3 dBA per doubling of distance.

In addition to the actual 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. Several rating scales have been developed to account for the known effects of noise on people. Based on these effects, the observation has been made that the potential for noise to impact people is dependent on the total acoustical energy content of the noise. A number of noise scales have been developed to account for this factor. These scales include the Equivalent Noise Level (Leq), the Day Night Noise Level (LDN) and the Community Noise Equivalent Level (CNEL).

Leq is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. Leq is the “energy” average noise level during the time period of the sample. Leq can be measured for any time period, but is typically measured for 15 minutes, 1 hour, or 24 hours.



LDN is a 24-hour, time-weighted average noise level. Time-weighted refers to the fact that noise which occurs during certain sensitive time periods is penalized for occurring at these times. In the LDN scale, those events that take place during the night (10 p.m. to 7 a.m.) are penalized by 10 dB. This penalty was selected to attempt to account for increased human sensitivity to noise during the quieter period of day, where sleep is the most probable activity.

CNEL is similar to the LDN scale except that it includes an additional 5 dBA penalty for events that occur during the evening (7 p.m. to 10 p.m.) time period. Thus, both the Ldn and CNEL noise measurements represent a 24-hour average of A-weighted noise levels with Ldn providing a nighttime adjustment and CNEL providing both an evening and nighttime adjustment.

Intermittent or occasional noise such as that associated with stationary noise sources is not of sufficient volume to exceed community noise standards that are based on a time averaged scale such as the LDN scale. To account for intermittent noise, the Percent Noise Level (L%) scale is used. The Percent Noise Level is the level exceeded a percentage of the time during the measurement period. Noise Ordinances are typically specified in terms of the percent noise levels. Ordinances are designed to protect people from noise sources such as music, machinery and vehicular traffic on private property.

Noise has been defined as unwanted sound and is known to have several adverse effects on people. From these known effects of noise, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. These criteria are based on such known impacts of noise on people as hearing loss, speech interference, sleep interference, physiological responses and annoyance.


b. Regulatory Setting. Figure 4.4-1 shows the ranges of noise exposure, for various land uses, which are considered acceptable, conditionally acceptable or unacceptable by the State Office of Noise Control guidelines. An acceptable noise environment is one in which development may be permitted without requiring specific noise studies or specific noise-reducing features. A conditionally acceptable noise environment is one in which development should be permitted only after noise mitigation has been designed as part of the project, to reduce noise exposure to acceptable levels. In unacceptable noise environments development in compliance with the guidelines is generally not possible. According to these standards the range of 45 dB to 60 dB is acceptable, 60 dB to 70 dB is conditionally acceptable, and 70 dB to 90 dB is unacceptable for single family residences. For multifamily residences and schools acceptable noise levels can be up to 65dB and for business commercial it is up to 70 dB.


The City of Paso Robles has adopted policies related to noise control in its Noise Element. These policies establish both interior and exterior noise limits for noise compatibility. The City specifically regulates the noise exposure of new noise sensitive development. The City Noise Element Policy N-1(a) states that,


“New development shall be designed to comply with the maximum, allowable Noise Exposures of 65 dB CNEL for outdoor activities (except for parks); and 45 dB CNEL for indoor activities.




LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE						
	Ldn or CNEL, dBA						
	55	60	65	70	75	80	85
RESIDENTIAL - LOW DENSITY SINGLE FAMILY, DUPLEX, MOBILE HOMES							
RESIDENTIAL - MULTI-FAMILY							
TRANSIENT LODGING - MOTELS, HOTELS							
SCHOOLS, LIBRARIES, CHURCHES, HOSPITALS, NURSING HOMES							
AUDITORIUMS, CONCERT HALLS, AMPHITHEATRES							
SPORTS ARENA, OUTDOOR SPECTATOR SPORTS							
PLAYGROUNDS, NEIGHBORHOOD PARKS							
GOLF COURSES, RIDING STABLES, WATER RECREATION, CEMETERIES							
OFFICE BUILDINGS, BUSINESS COMMERCIAL AND PROFESSIONAL							
INDUSTRIAL, MANUFACTURING, UTILITIES, AGRICULTURE							

 **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.



***Action Item 9.** For new development of residential units where outdoor activity areas of a site are impacted with noise exceeding 65 dbA, the Development Review Committee may require installation of effective noise barriers.*

***Action Item 10.** For new development of residential units where mitigation measures are necessary to reduce interior noise levels to 45 dBA, the Building Official shall require incorporation of those measures listed in the Acoustic Design Manual (Volume III) for the appropriate amount of noise reduction."*

c. 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, libraries, and churches 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. The Specific Plan would accommodate residential uses and a school site that could be considered sensitive receptors. Off-site, residential development west of Golden Hill Road, south of Linne Road, and west of Fontana Road, as well as planned residential uses south of the Specific Plan area could also be considered sensitive receptors. The Kingdom Hall of Jehovah's Witnesses is located east of Golden Hill Road immediately north of Gilead Road which also could be considered a sensitive receptor.

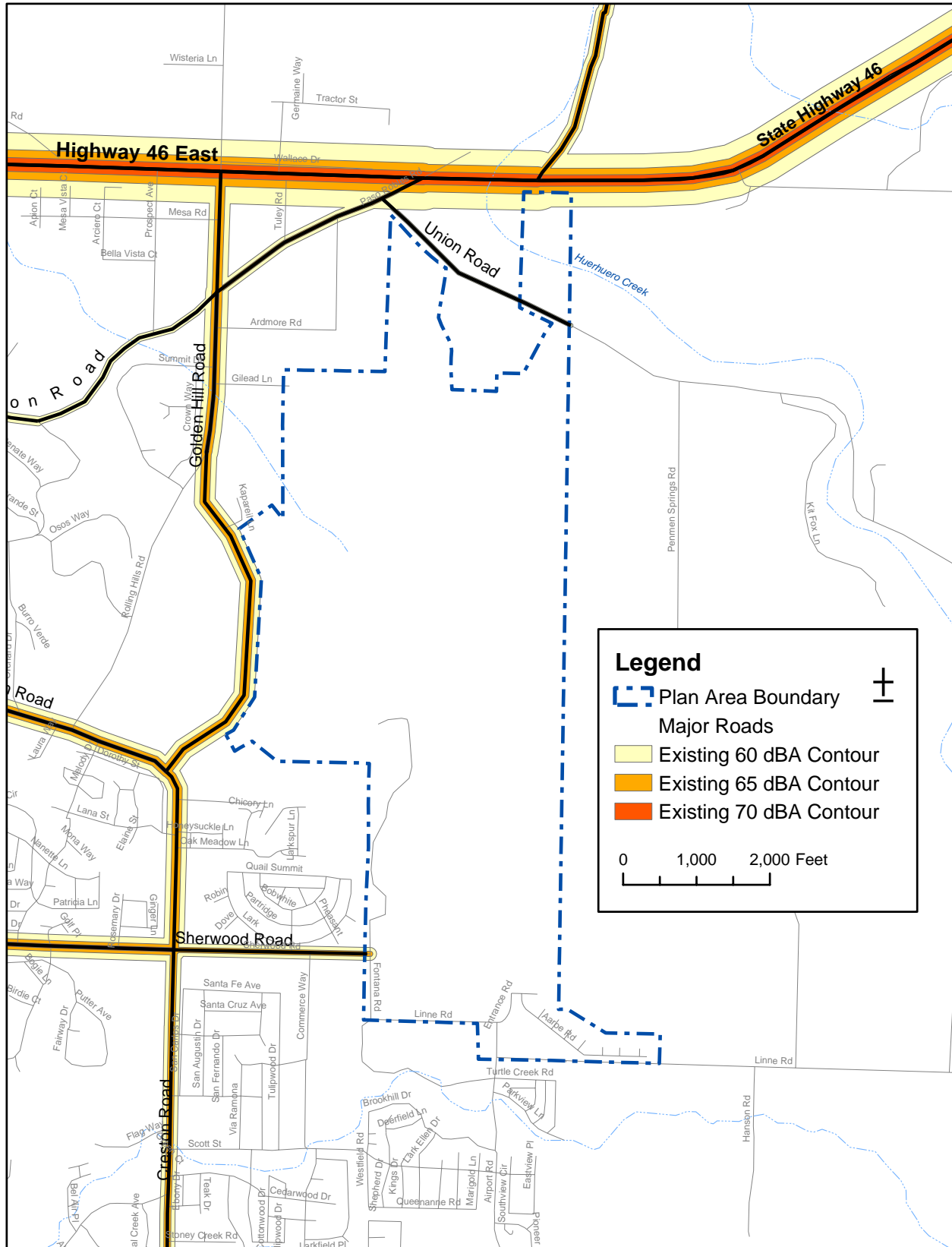
d. Existing Noise Environment. Major sources of noise in the City identified in the General Plan Noise Element include: roadways, airports, railroads, and stationary sources such as agricultural operations, construction, and commercial and industrial plants. The predominant noise source in the City originates from motor vehicles. The main roadways of concern in the City include Highway 101 and State Route 46. Noise sources that are more specific to the Plan Area are described below.

***Roadway Noise.** State Route (SR) 46, which is contiguous to the northern boundary of the Specific Plan Area, is the primary traffic conduit near the Plan area, and is consequently the major noise contributor. The existing 65 dBA CNEL contour from SR 46 East ranges from 184 to 221 feet from the centerline.*

The other roadways adjacent to the Specific Plan that currently carry sufficient traffic to produce audible noise at a substantial distance include Creston Road, Golden Hill Road, Niblick Road, and Union Road. The existing 60 dBA CNEL contour for Creston Road, Golden Hill Road, and Niblick Road typically ranges from 128 to 217 feet, while Union Road typically ranges from 65 to 85 feet (Table 4.4-1). These roads could have a lower audible noise where there are intervening structures, vegetation and/or topography. River Road and Linne Road carry moderate traffic (1,000-8,000 ADT), but not sufficient to produce far-reaching noise contours. The noise model predicts that the 60 dBA CNEL contour would be less than 100 feet from the center of those roadways under existing conditions. Table 4.4-1 shows data relative to the existing roadway traffic noise for major streets and highways in the vicinity of the Plan Area expressed as the distance to CNEL contour from centerline of the roadway. These contours are then expressed graphically in Figure 4.4-2.

***Industrial Manufacturing Noise.** Industrial operations can be substantial sources of noise, depending on the specific type of use and hours of operation. Stationary noise sources of concern typically include generators, pumps, air compressors, outdoor speakers, motors, heavy equipment and similar machinery. These are often associated with trucking companies, auto mechanic shops,*





San Luis Obispo County, 2002; Rincon Consultants, Inc. 2005;
 CNEL contour values based on traffic volumes from
 Omni-Means, October 2005.

**Existing Noise Contours from
 Specific Plan Area Roadways**

Figure 4.4-2

metal shops, loading docks, and electric generating stations. Industrial equipment and machinery, use of explosives, and ground-works, such as pile driving or ground drilling, can also cause substantial ground-borne vibration and noise.

Commerce Industrial Park is South of the Specific Plan area, and includes various light-manufacturing plants. Other industrial uses are located northwest of the Specific Plan area near the intersection of Union Road and Golden Hill Road. These industrial uses will have delivery trucks as the main source of noise. Due to the lack of heavy industrial facilities in the Specific Plan vicinity, ground-borne noise and vibration associated with industrial operations in the Study Area are limited.

Table 4.4-1: Existing Traffic Noise Levels

Roadway Segment	Traffic (ADT)	Distance to CNEL Contour from Centerline (feet)		
		70 dB	65 dB	60 dB
U.S. 101				
South of State Route 46 West	51,000	245	529	1,139
North of State Route 46 West	61,000	277	596	1,284
State Route 46				
S.R. 46 East east of US 101	23,000	103	221	477
S.R. 46 East west of Airport Road	17,500	86	184	397
S.R. 46 West west of US 101	5,500	35	85	184
City Roadways				
Airport Road north of S.R. 46	4,620	RW	51	109
Union Road east of Golden Hill Road	10,910	RW	56	120
24th Street west of US 101	17,180	RW	58	125
Charolais Road east of River Road	7,820	27	72	155
Creston Road east of River Road	16,930	29	75	161
Creston Road east of US 101	23,250	40	92	199
Creston Road south of Niblick Road	12,870	RW	62	134
Creston Road west of Rolling Hills	13,200	RW	63	137
Golden Hill Road south of S.R. 46	7,510	26	70	151
Golden Hill Road south of Union Road	9,990	35	85	183
Linne Road east of Airport Road	1,190	RW	RW	RW
Niblick Road east of US 101	26,410	45	101	217
Niblick Road east of Creston Road Sherwood Road	11,920	RW	59	128
River Road north of Niblick Road	7,990	RW	43	98
River Road south of S.R. 46	2,740	RW	RW	47
Union Road east of River Road	6,500	RW	35	85
Union Road west of Golden Hill Road	4,330	RW	RW	65

RW: Noise contour falls within roadway right-of-way.
 Source: Traffic volumes from Omni-Means (August 2005).

Ambient Noise. Noise measurements were taken in the Plan Area as part of the environmental analysis for the EIR prepared for a previous Chandler Ranch project in 2000 (Douglas Wood and Associates, Inc., Mestre Greve Associates, Chandler Ranch Specific Plan Draft EIR, 2000). Noise Measurement Site 1 was located near the northern boundary of the Specific Plan area along Union Road. This site is most affected by traffic on State Route 46 and Union Road. This site was also subject to noise from barking dogs at a nearby boarding facility. Site 2 was also located near the northern boundary of the Specific Plan area along Union Road. This site was located farther to the south and less affected by traffic noise from State Route 46. Site 3 was located at the southern boundary of the Specific Plan at the northeast corner of



Sherwood Road and Fontana Road. There are light industrial and manufacturing uses located south of Sherwood Road and west of Fontana Road. Site 4 was located along the western edge of the Specific Plan boundary and Golden Hill Road. The noise environment at this site was influenced by traffic on Golden Hill Road.

The noise measurement results are presented in Table 4.4-2, in terms of the equivalent noise levels (Leq), maximum noise levels, minimum noise levels and percentile noise levels (L%). The L50 percentile level for example, represents the noise levels exceeded 50 percent of the time, and usually represent the average ambient noise level. The L90 noise levels represent the background noise levels which are exceeded 90 percent of the time. Table 4.4-2 provides the results of the noise measurements. Measured Leqs at site 1 through 3 indicate an exterior CNEL is in the 56 to 60 dBA range and site 4 is in the 44 dBA range.

Table 4.4-2. Existing Noise Measurements

Site	Start Time	Leq	Lmax	L10	L50	L90	Lmin
1	10:47 am	57.7	74.0	59.5	56.0	52.0	42.9
2	11:12 am	56.6	73.5	59.0	50.5	48.0	45.9
3	12:08 pm	59.9	73.8	63.5	53.0	45.0	42.0
4	1:05 pm	44.5	58.4	47.5	41.0	36.0	33.8

Source: Douglas Wood and Associates, Inc., Mestre Greve Associates, Chandler Ranch Specific Plan Draft EIR, 2000.

Agricultural Operations. Agricultural operations produce noise associated with wind machines, diesel engines, aerial application aircrafts (crop dusters), bird frightening devices, and tractors. Packing operations, including refrigeration trucks, and movement of farm equipment are other sources of noise that have the potential to affect sensitive receptors in the City, but are not a constant source of noise. Many of these noise sources lie outside the City and are related to seasonal operations. While these sources may periodically affect City residents, the City is typically unable to use its Noise Ordinance provisions as an enforcement tool in these areas. The only agriculture operations near the Specific Plan Area are the vineyards to the east. There have been few complaints related to noise, because of the relatively great distance between most homes in the City and noise-intensive agricultural operations.

4.4.2 Impact Analysis and Mitigation Measures

a. Methodology and Significance Thresholds. Existing and future traffic noise levels were quantified using the California Vehicle Noise Emission Levels (Caltrans, January 1987), standard noise modeling equations derived from the Federal Highway Administration STAMINA2 noise model, and traffic volumes provided by Associated Transportation Engineers (ATE) for this EIR. Noise model data is provided in Appendix E of this EIR.

New development that generates noise that raises the ambient noise level above 65 dB CNEL for outdoor activities (except for parks) and 45 dB CNEL for indoor activities that can affect sensitive receptors is considered normally unacceptable by the City of Paso Robles. For purposes of this Specific Plan, an impact is considered significant if project implementation would cause the ambient noise level to increase by more than 3 dBA. A 3 dBA change represents the minimum change that is audible to most receptors. Exterior noise level changes



of 1-3 dBA are not considered significant since they are generally not perceptible. Pursuant to the State CEQA guidelines, potentially significant impacts would result if the project would result in:

- *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;*
- *Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels;*
- *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or*
- *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.*

b. Project Impacts and Mitigation Measures.

Impact N-1 **Specific Plan construction and demolition could be within 20 to 200 feet of a sensitive receptor (nearest existing off-site residence), and could intermittently generate nuisance noise levels at locations on and adjacent to the Specific Plan area. This noise has the potential to exceed thresholds in the City General Plan Noise Element; impacts are considered a Class II, significant but mitigable.**

The operation of heavy equipment during construction would result in temporary increases in noise in the immediate vicinity of the Specific Plan. The highest noise levels would generally occur during excavation and foundation development, which involve the use of such equipment as backhoes, bulldozers, shovels, and front-end loaders. In addition, construction vehicles traveling on local roadways can generate substantial noise levels that affect adjacent receptors. As depicted in Table 4.4-3, average noise levels associated with the use of heavy equipment at construction sites can range from about 65 to 88 dBA at a distance of 50 feet from the source, depending upon the types of equipment in operation and the phase of construction.

Table 4.4-3. Typical Noise Level Ranges at Construction Sites

Construction Phase	Average Noise Level at 50 Feet	
	Minimum Required Equipment On-Site	All Pertinent Equipment On-Site
Ground Clearing	83 dBA	83 dBA
Excavation	75 dBA	88 dBA
Foundations	81 dBA	81 dBA
Erection	65 dBA	81 dBA
Finishing and Cleanup	72 dBA	88 dBA

Source: Bolt, Beranek and Newman, "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances," prepared for the U.S. Environmental Protection Agency, 1971.

Assuming a 6 dB reduction for every doubling of the distance from the equipment, at 400 feet the noise level is estimated to be about 66 dBA Ldn. This average sound level would exceed the City's noise standards for residential use, and could cause periodic annoyance to nearby receptors, particularly if noise events occur at night. Because the estimated noise level exceeds the City's residential threshold for noise exposure, construction noise impacts are considered



significant. It should be noted that this analysis also does not account for attenuating factors, like topography or noise impeding structures or vegetation. Actual site conditions may decrease the noise levels at sensitive receptors.

The potential demolition of any existing structures on-site would result in temporary increases in noise in the immediate vicinity of the Specific Plan. Therefore, noise levels generated during demolition are considered potentially significant, although these impacts would be temporary.

In addition, due to the proposed phasing of the Specific Plan, newly developed residences may be occupied while remaining land use components are constructed. If these newly developed residences are closer than 50 feet to the construction activity, they may experience temporary construction noise levels greater than 88 dBA. Therefore, when this is taken into account, noise levels generated during all phases of construction are considered potentially significant, although these impacts would be temporary.

Mitigation Measures. The Specific Plan includes the following policy, intended to generally mitigate impacts associated with construction pursuant to development under the Specific Plan:

- *Policy LU-19. Visual, Noise and Air Quality Construction Mitigation. During project construction, measures to minimize noise, visual and air quality impacts to existing neighboring development shall be implemented. These could include (but not be limited to) limiting the hours of construction, temporary screening, and dust control measures.*

The following measures are recommended to reduce demolition and construction noise impacts on nearby residences:

- N-1(a) Construction Activity Timing.** Demolition and construction activity for site preparation and for future development shall be limited to the hours between 7:00 AM and 7:00 PM. Non-noise generating construction activities such as interior painting are not subject to these restrictions.

Plan Requirements and Timing: Signs stating these restrictions shall be provided by the developer and posted on-site. Signs shall be placed prior to beginning of and throughout grading and construction activities. Violations may result in suspension of permits. **Monitoring:** The Building Division shall spot check and respond to complaints.

- N-1(b) Construction Noise Attenuation.** For all demolition and construction activity on the Specific Plan area, additional noise attenuation techniques shall be employed as needed to ensure that noise remains within levels allowed by the City of Paso Robles noise standards. The following measures shall be incorporated into contract specifications to reduce the impact of construction noise.

- All construction equipment shall have properly maintained sound-control devices. No equipment shall have an unmuffled exhaust.



- Contractors shall implement appropriate additional noise mitigation measures including, but not limited to, siting the stationary construction equipment away from residential area to the extent possible, shutting off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources.

Plan Requirements and Timing: Noise attenuation techniques shall be submitted to the Community Development Department for review and approval. **Monitoring:** The Building Division shall perform site inspections to ensure compliance.

N-1(c) Construction Equipment. Stationary demolition and construction equipment that generates noise that exceeds 65 dBA CNEL at the boundaries of adjacent residential properties shall be baffled. All construction equipment powered by internal combustion engines shall be properly muffled and maintained. Unnecessary idling of internal combustion engines shall be prohibited. Whenever feasible, electrical power shall be used to run air compressors and similar power tools.

Plan Requirements and Timing: An equipment area with appropriate acoustical shielding shall be designated on building and grading plans. Equipment and shielding shall remain in the designated location throughout construction activities. **Monitoring:** The Building Division shall perform site inspections to ensure compliance.

Residual Impacts. With implementation of recommended mitigation measures, demolition and construction noise impacts would be less than significant.

Impact N-2 Specific Plan-generated traffic would incrementally increase noise levels along roads in the Specific Plan vicinity. The effect of this noise on off-site and on-site sensitive receptors in the area is considered a Class I, significant and unavoidable, impact.

Implementation of the Specific Plan could substantially increase human activity and related noise in the Specific Plan vicinity, primarily due to increased vehicular traffic. Table 4.4-4 shows the estimated noise levels along roadways in the vicinity that would experience increases in noise due to Specific Plan-generated traffic. The estimated traffic for the existing conditions with and without the Specific Plan was used to calculate these noise levels.



Table 4.4-4. Current and Projected Noise Levels along Area Roadways

Roadway Segment	CNEL at 50 Feet (dBA) ¹		Change (dBA)	Threshold Exceeded or Change Greater than 3 dBA
	Existing ²	Existing + Specific Plan		
U.S. Highway 101				
South of State Route 46 West	80.4	80.8	0.4	Yes
North of State Route 46 West	81.1	81.5	0.4	Yes
State Route				
S.R. 46 East east of US 101	74.7	75.4	0.7	Yes
S.R. 46 East west of Airport Road	73.5	74.4	0.9	Yes
S.R. 46 West west of US 101	68.5	68.7	0.2	Yes
City Roadways				
Airport Road north of S.R. 46	65.1	66.1	1.0	Yes
Union Road east of Golden Hill Road	68.8	69.3	0.5	Yes
24th Street west of US 101	66.0	66.2	0.2	Yes
Charolais Road east of River Road	67.4	67.4	0.0	No
Creston Road east of River Road	67.6	67.9	0.3	Yes
Creston Road east of US 101	69.0	69.3	0.3	Yes
Creston Road south of Niblick Road	66.4	66.6	0.2	Yes
Creston Road west of Rolling Hills	66.5	67.0	0.5	Yes
Golden Hill Road south of S.R. 46	67.2	67.9	0.7	Yes
Golden Hill Road south of Union Road	68.5	69.1	0.6	Yes
Linne Road east of Airport Road	56.1	61.1	5.0	Yes
Niblick Road east of US 101	69.6	70.2	0.6	Yes
Sherwood Road east of Creston Road	69.2	70.8	1.6	Yes
River Road north of Niblick Road	64.4	64.5	0.1	No
River Road south of S.R. 46	59.7	59.9	0.2	No
Union Road east of River Road	63.5	63.9	0.4	No
Union Road west of Golden Hill Road	61.7	62.5	0.8	No

Notes:

1. All distances are measured from the roadway centerline.
2. Year 2005 ambient roadway noise levels and the traffic parameters assumed to determine them are described in Appendix E.

Source: Traffic volumes from Omni-Means (August 2005)

The noise levels shown in Table 4.4-4 and Figure 4.4-2 indicate that many of the studied roadway segments on U.S. Highway 101, State Route 46, Airport Road, Union Road, 24th Street, Creston Road, Golden Hill Road, Niblick Road, and River Road in the Specific Plan vicinity would exceed the City’s threshold of 65 dBA CNEL under the existing conditions without implementation of the Specific Plan. Any noise increased along these roads caused in part by the Chandler Ranch Area Specific Plan would be considered significant. The table also shows that development under the Specific Plan would contribute to significant increases in noise along Linne Road, which is not currently experiencing noise levels above the City standard. In addition to impacts to off-site sensitive receptors from increased traffic on existing roads, new arterial roads can potentially cause noise which will impact new development. Subareas 3, 4, 5, 6, 7, 9, 12, 13, 14, 15, 16, and 17 are adjacent to new arterials that are likely to be busy and create a new source of noise. Noise from these roads will impact sensitive receptors such as residences, businesses, and schools.



Mitigation Measures. The proposed Specific Plan includes Policy LU-23, which encourages the use of clustering to minimize noise impacts to residents within the plan area. The proposed Specific Plan also includes Policy LU-19, which includes measures to minimize noise impacts to existing neighboring development during construction. In addition, the Specific Plan includes setback and noise attenuation standards for each of the residentially-oriented subareas to reduce noise exposure to on-site development. For subareas adjacent to planned extension of Airport Road, where it is on the eastern boundary of the Plan Area, a setback of 125 feet is required from agricultural operations. To address potential land use impacts pursuant to Impact LU-4, a new Specific Plan policy is recommended (Policy LU-20a), which requires constructive notice regarding development under the Specific Plan.

The following noise attenuation standard is also required for all subareas adjacent to a new arterial:

- **Noise Attenuation.** *Because of the noise that may be generated by vehicles, a site specific noise evaluation shall be conducted prior to issuance of building permits. If the required setback is determined to be insufficient, buffers or barriers may be necessary to minimize the effect of noise on the neighborhood. Noise attenuation measures may include any or all of the following, as determined to be appropriate by the Planning Commission.:*

***First:** Use of setbacks and/or open space separation;*

***Second:** Site layout/orientation/shielding of noise-sensitive uses with non-noise-sensitive uses;*

***Third:** Construction of earthen berms or soundwalls;*

***Fourth:** Structural measures: Soundwalls, acoustical treatment of buildings and noise barriers constructed of concrete, wood or materials other than earth.*

The recommendations of the noise evaluation, including measures related to achieving indoor noise standards consistent with City requirements, shall be implemented.

Although this standard will reduce noise levels at on-site sensitive receptors, there is no feasible provision to reduce potential noise increases to many offsite locations, since development already exists, and there is no mechanism to provide structural barriers to reduce impacts at those locations. No mitigation measures are feasible to reduce offsite impacts within the City, except where possible as a result of development in other locations.

Residual Impacts. No mitigation measures are feasible that would reduce potential impacts to a less than significant level. Therefore, impacts would remain Class I, *Significant and Unavoidable*.

Impact N-3 Operation of neighborhood commercial uses associated with development in the Chandler Ranch Area Specific Plan would potentially affect adjacent residences. This is considered a Class II, significant but mitigable impact.

Operation of the neighborhood commercial uses on-site could involve noise associated with mechanical equipment (such as generator, heating, ventilation and air conditioning (HVAC)



units), deliveries, trash hauling activities, and customer and employee use of the facilities. Noise from these activities, in addition to general parking lot noise, could affect sensitive receptors.

The current site plan indicates that the neighborhood commercial uses in the southern portion of the site (in subareas 14 and 15) would be directly adjacent to the potential residential development in subareas 13 and 14. Delivery and trash hauling activities that could potentially occur during late night and early morning hours would be disruptive to the adjacent occupants of these units.

In addition, potential residential uses in Subareas 13 and 17 would be adjacent to existing industrial uses south and west of Linne Road. With the realignment of Linne and Sherwood Roads as shown in the Circulation Plan (Figure 2-3) the existing Linne Road may be abandoned adjacent to subarea 17, with the south trending portion to become part of the Airport Road alignment. This would create the opportunity to use the existing right-of-way area to attenuate noise from noise generated offsite.

Potential impacts to sensitive receptors from commercial and industrial operations are considered significant.

Mitigation Measures. The proposed Specific Plan contains the following development standard for subareas 14 and 15 to reduce impacts of commercial operations on neighboring residences:

- **Compatibility With Residential Uses.** *Commercial development shall be designed to direct commercial lighting away from adjacent residential areas. In addition, no loading docks shall be allowed along the interface between commercial and residential development without acoustical and visual shielding.*

This standard, by placing noise generating delivery activities away from residences or by shielding noise, would substantially reduce potential impacts from neighborhood commercial operations in subareas 14 and 15. However, the following additional measure is needed to mitigate for impacts from existing industrial uses and ensure that impacts would be less than significant:

- N-3(a) Disclosure of Nuisance.** Upon the transfer of residential property in Subareas 13, 14, and 17, the transferor shall deliver to the prospective transferee a written disclosure statement which shall make prospective home buyers aware that although potential impacts or conflicts between commercial and residential uses (e.g., noise) may be decreased by proper operation and maintenance of noise generators, some level of incompatibility between the two uses would remain.
- Plan Requirements and Timing:** The disclosure shall be provided by the property transferor to prospective homeowners upon the transfer of real property on the site. Updated disclosure notifications shall be provided to existing and prospective homeowners on the site as necessary if commercial operation practices or equipment substantially change.
- Monitoring:** It shall be the responsibility of the developer of each property to provide the City with a copy of the Disclosure of Nuisance



notice that is to be recorded on each trust deed for each residential unit (or, for rental units, to be included in the rental agreement along with a written acknowledgement of receipt for each household). Community Development Department staff shall review the disclosure statement prior to occupancy of each residential development phase.

N-3(b) Constructive Notice. Upon the transfer of residential property in Subareas 13 and 14, the developer(s) shall record constructive notice on each parcel, in a form to be approved by the Community Development Department, advising future residents near the commercial noise sources prior to occupation.

Plan Requirements and Timing: The notice shall be provided by the property transferor to prospective homeowners upon the transfer of real property on the site. Updated notifications shall be provided to existing and prospective homeowners on the site as necessary if commercial operation practices or equipment substantially change. **Monitoring:** It shall be the responsibility of the developer of each property to provide the City with a copy of the notice that is to be recorded on each trust deed for each residential unit (or, for rental units, to be included in the rental agreement along with a written acknowledgement of receipt for each household). Community Development Department staff shall review the notice statement prior to occupancy of each residential development phase.

Residual Impacts. Impacts would be reduced to a less than significant level.

Impact N-4 Subareas 18 and 19 are the only portions of the Specific Plan that would be subject to high traffic noise volumes generated from State Route 46 East. No residences or other sensitive uses are proposed in this area. Some commercial uses would be subject to noise in excess of 70 dB. However, this would not create an unacceptable interior noise environment. Therefore, impacts relating to noise from existing traffic on State Route 46 are considered to be less than significant (Class III).

The proposed Specific Plan would generate an increase in the average number of trips along State Route 46 East. This would result in generally increased noise levels along that roadway by about 0.2 to 0.9 dBA CNEL as measured 50 feet from the roadway centerline (see Table 4.4-4). The existing 65 dBA noise contour is 184 feet from the centerline of SR 46 East adjacent to subareas 18 and 19. The project by itself would extend the 65 dBA noise contour to 211 feet from the centerline of the same segment of SR 46 East, while cumulative development would move this contour to as far as 323 feet from the centerline. No residential development would occur within this contour.

Specific Plan development would increase the existing 70 dBA CNEL noise contour distance from 86 to 98 feet from the centerline, while cumulative development would move the 70 dBA CNEL centerline to as far as 150 feet from the SR 46 East centerline. Commercial development could



occur within this noise contour, but it is not expected that such land uses would be noise sensitive, since this would likely be highway-serving commercial uses.

The northern portions of commercial development closest to State Route 46 at the northern end of the site may be exposed to noise levels of approximately 70-75 dBA. Typical building construction reduces outdoor noise by 10 to 15 decibels with windows open and 20 to 24 decibels with windows closed (smaller windows and better construction will provide the higher end of the range). Therefore, if outdoor noise levels are less than about 75 dBA, average wall and window construction can reduce noise levels to 50-51 dBA, with windows closed. Since the outdoor noise levels at the proposed commercial land uses adjacent to State Route 46 would not exceed 65 dBA, noise levels would be considered acceptable for commercial uses. Therefore, impacts related to noise exposure in these locations would be less than significant.

Table 4.4-5. Noise Contours Associated With Specific Plan Implementation + Cumulative Buildout Traffic Conditions

Roadway Segment	Distance to Noise Contour from Roadway Centerline (feet)			
	75 dBA	70 dBA	65 dBA	60 dBA
S.R. 46 East west of Airport Road	70	150	323	696
S.R. 46 East east of U.S. 101	73	166	358	772

Mitigation Measures. No mitigation measures are required.

Residual Impacts. Impacts would be less than significant.

Impact N-5 The proposed Specific Plan designates residential uses in the vicinity of the existing Barney Schwartz Park. Activities at the park have the potential to generate noise that will impact these residences. Noise impacts on nearby residences from activities at Barney Schwartz Park are considered Class III, less than significant.

The proposed Specific Plan includes the possible introduction of residential development in Subareas 3 and 6, in the vicinity of Barney Schwartz Park. Barney Schwartz Park provides both passive and active recreational opportunities. The park has picnic areas, playgrounds, and concession stands, and is capable of hosting large-scale tournaments for baseball/softball and soccer on the sports fields. The sports fields are lighted and activities often are held in the evening and at night. Residences are considered sensitive noise receptors. New development in the vicinity of the park could be exposed to noise from nighttime activities.

The closest residential development within subarea 6 would be within 700 feet of the southernmost ballfields within the park. The nearest residences within subarea 3 would be about 1,200 feet from the same ballfields, but would be separated to some extent by an intervening topographic rise. Some residential portions of subareas 1, 3, 6 and 7 will have sufficient elevation to have line of sight to the park, but would be relatively far away; the nearest portions of subareas 1 and 7, for example, would be at least ½ mile from the park. Noise levels at these locations are not expected to be substantial. It should be noted, however, that



noise levels from park activities can vary considerably depending on site topography and wind direction as much as horizontal proximity to the park. Thus, the Specific Plan includes policy language to address these potential impacts.

Subarea 10 presents a special case. Although not anticipated to be developed with residential uses, it could support such uses if the school district does not acquire this site for a school. Portions of subarea 10 are directly adjacent to the park, and could be subjected to direct noise impacts from park activities. The western portion of subarea 10 is possibly the most suitable location for homes, since it is partially blocked from park activities by intervening topography. Nevertheless, noise impacts from the park would likely be greater in subarea 10 than in any of the other residentially-designated portions of the Specific Plan area.

Mitigation Measures. The Specific Plan was designed in such a way to eliminate potential residential development directly adjacent to Barney Schwartz Park, particularly in subareas 4 and 5. The following policy is included in the Specific Plan to address potential nuisance impacts, including noise, that could impact residents closest to Barney Schwartz Park:

- ***Policy LU-20. Constructive Notice Regarding Lights and Noise.*** *As a condition of approval of any new residential development north of Subarea 8 (including but not limited to Subareas 1, 2, 3, 6, 7 and 10), constructive notice shall be recorded on each parcel and dwelling unit, and notice shall be provided in each rental agreement for occupancy of dwelling units, advising residents that Barney Schwartz Park will operate up to 24 hours per day, with substantial emission of lights and noise from park activities. The form and content of the constructive notice and rental agreement text shall be subject to approval of the City Attorney.*

No additional mitigation measures are required to address this impact. However, the following additional policy is recommended for inclusion in the Specific Plan to ensure that impacts would remain less than significant:

- ***Policy LU-20a. Constructive Notice Regarding Development of Specific Plan Area.*** *In order to provide maximum public notice of the content of the adopted Specific Plan, the trust deed of each newly created parcel and content of each rental agreement shall include a Constructive Notice statement, the content of which shall be subject to approval of the City Attorney. The purpose of the notice will be to advise a prospective resident that there is an adopted Specific Plan and that the resident needs to take into account that the Specific Plan's development will involve changes to land use and circulation patterns, in a manner generally consistent with the adopted Specific Plan, that will include but not be limited to:*
 - *extension of local, collector, and arterial streets*
 - *grading of land to provide sites for development*
 - *construction of new residential and commercial developments, which may result in temporary increases in noise and other disturbances*
 - *construction of workforce / affordable housing, consistent with the goals of the City's adopted General Plan*



- *reductions and/or elimination of privacy regarding use of outdoor areas as a result of development of adjacent properties, including but not limited to construction of two-story dwelling units and dwelling units constructed at higher elevations*
- *increased levels of traffic and other activity resulting from new development*
- *the fact that the subject area is within an adopted Airport Influence Area and that an Aviation Easement applies to all land uses within the Specific Plan area.*

Residual Impacts. Because of the Specific Plan's avoidance of residential uses directly adjacent to Barney Schwartz Park, and the requirement of constructive notice in other relatively nearby residential areas, impacts would be less than significant. It should be noted that this would not necessarily eliminate the potential for noise nuisance complaints to the City, but that from a CEQA perspective, this impact would be considered less than significant.

c. Cumulative Impacts. General Plan buildout motor vehicle noise levels (which include Specific Plan development) along study area roadways were evaluated based on traffic projections provided in Section 4.2, *Transportation and Circulation*, of this EIR.

Impact N-6 The Specific Plan, in combination with cumulative development in the vicinity, would add to roadway corridor noise levels already above the 65 dBA CNEL City threshold. This is considered a Class I, significant and unavoidable impact.

Because buildout of the Specific Plan would contribute to noise levels already in exceedance of the City's 65 dBA CNEL residential threshold, the cumulative impact on roadway noise is considered significant. Table 4.4-6 below shows the roadways expected to experience the largest increase in noise due to buildout of the surrounding area.

This analysis accounts for cumulative increases in traffic associated with 2025 General Plan buildout. Cumulative increases in traffic on area roadways would generally increase noise levels in the area and would create significant impacts to noise-sensitive land uses adjacent to area roadways. Since the Specific Plan would contribute to these cumulative noise increases beyond threshold levels, cumulative noise impacts are considered significant.



Table 4.4-6 Specific Plan Noise Increases to Cumulative Conditions

Roadway	Noise Level Along Roadways (dBA CNEL, at 50 feet from centerline)				
	Cumulative	Cumulative + Specific Plan Conditions	Change (dBA)	Exterior Threshold	Threshold Exceeded or Change Greater than 3 dBA?
U.S. Highway 101					
South of State Route 46 West	81.2	81.6	0.4	65	Yes
North of State Route 46 West	81.9	82.2	0.3	65	Yes
State Route 46					
S.R. 46 East east of US 101	77.5	77.8	0.3	65	Yes
S.R. 46 East west of Airport Road	77.2	77.5	0.3	65	Yes
S.R. 46 West west of US 101	69.6	69.8	0.2	65	Yes
City Roadways					
Airport Road north of S.R. 46	67.2	67.8	0.6	65	Yes
Union Road east of Golden Hill Road	69.4	69.8	0.4	65	Yes
24th Street west of US 101	66.5	66.7	0.2	65	Yes
Charolais Road east of River Road	68.2	68.2	0.0	65	No
Creston Road east of River Road	67.8	68.0	0.2	65	Yes
Creston Road east of US 101	69.9	70.1	0.2	65	Yes
Creston Road south of Niblick Road	68.5	68.6	0.1	65	Yes
Creston Road west of Rolling Hills	67.9	68.3	0.4	65	Yes
Golden Hill Road south of S.R. 46	70.4	70.8	0.4	65	Yes
Golden Hill Road south of Union Rd	71.4	71.8	0.4	65	Yes
Linne Road east of Airport Road	58.3	62.0	3.7	65	Yes
Niblick Road east of US 101	70.3	70.8	0.5	65	Yes
Sherwood Road east of Creston Rd	71.2	72.3	1.1	65	Yes
River Road north of Niblick Road	65.7	65.8	0.1	65	Yes
River Road south of S.R. 46	61.8	62.0	0.2	65	No
Union Road east of River Road	64.2	64.6	0.4	65	No
Union Road west of Golden Hill Road	63.2	63.8	0.6	65	No

Source: Traffic volumes from Omni-Means (August 2005)

Mitigation Measures. As described in Impact N-2, the proposed Specific Plan contains policies that will reduce noise impacts to on-site receptors to a less than significant level; however, impacts to off-site receptors would remain significant.

Residual Impacts. No mitigation measures are feasible to ensure that impacts would be reduced to less than significant levels. Use of such techniques as setbacks and noise attenuation features will reduce impacts to on-site receptors. No additional mitigation measures are feasible to reduce impacts to existing off-site receptors due to economic, regulatory and physical constraints. Therefore, impacts would remain Class I, *Significant and Unavoidable*.

