VIII Noise Element

The Noise Element is intended to identify existing and potential future sources of noise within the community; and to identify strategies to limit the exposure of the community to excessive noise levels. To set the context for this Element, its goal is as follows:

Goal

1. ~~It shall be the goal of the City of Rancho Palos Verdes,~~ Through proper land use planning and regulations, to provide for a quiet and serene residential community.
   (PLANNING COMMISSION RECOMMENDED CHANGE TO GOAL)

The Noise Element continues by identifying the fundamentals of noise and its effects upon human beings. The methods for measuring existing noise levels and projecting future noise levels in the community are then discussed. From these discussions, mitigation measures are identified in the Noise Element to minimize the exposure of community residents to excessive levels of noise. Finally, the Element enumerates the Noise Policies.

Fundamentals of Noise

Noise

For the purposes of this section of the General Plan, Noise is considered as any loud sound. Sound has physical properties which are not only heard but can be measured and felt. For the human ear, sound has two significant properties: intensity, or loudness; and frequency, or pitch. Intensity can be measured in decibels using a sound meter and is abbreviated dB. The sound meter measures pressure that the sound's energy exerts. This is called acoustic energy. The frequency of the sound is measured in hertz, representing one cycle per second, and is abbreviated Hz. This frequency can be visually displayed with the aid of an oscilloscope.

Sound does not exist in a vacuum; its acoustic energy must have an object to strike in order to produce vibrations that are interpreted as sound. The vibration-production function of sound is one of the major reasons that sound or noise controls are necessary. Sound moves in wave patterns like the ocean. As the waves encounter an object, the force exerted is a push, then a pull, on the object. This is why sound can break glass or cause a window screen to vibrate.

Sound, in modest proportions, can be desirable. However, as sound intensity increases, it degenerates into noise. Given the properties of sound as discussed above, too much noise is not only psychologically disturbing, but it also has the potential of doing physical harm to humans and the environment.

Sound intensity (or more precisely, sound pressure) is measured in units of decibels. The ear hears or responds to these decibels on a logarithmic scale, and not at a 1-to-1 ratio. Therefore, doubling the decibel or sound pressure does not double the volume. Ten decibels is ten times more intense than 1 decibel, 20 decibels is 100 times the intensity, and 30 decibels is 1000 times the intensity. This feature of the human ear allows us to hear a wide range of sound volumes. This range stretches from about 10 decibels to well above 120 decibels. However, 10dB(A) is just audible, whereas at 120dB(A) and above, the ear begins to feel pain.

The (A) in dB(A) denotes that the decibel reading was taken on the A weighting scale. The A weighting scale is suggested for use in noise elements prepared pursuant to Section 65302(f) of the Government Code. The A scale is generally used because, unlike the C scale—which does not discriminate sound pressure levels over various frequencies—the A scale does discriminate, and in so doing, it comes closer to approximating the audibility range of the human ear.

Effects of Noise on Humans

According to a report issued by the U.S. Environmental Protection Agency, impairment to the human ear begins at about 70dB(A). This 70dB(A) is tantamount in volume to freeway traffic 50 feet away, or loud conversation 2 feet away. Hearing damage occurs at 90dB(A) if this volume is sustained over several hours of the working day. 90 dB(A) is about the same loudness as a heavy truck going past at about 50 feet away. Surprisingly enough, many kitchens have sound levels of 90dB(A) when the radio is on and pots and pans are being banged around. Table N.1 below indicates the relative levels of noise producers and their effects.

Table N.1: Common Sound Levels and Noise Sources

Noise Source	A-Weighted Sound Level in Decibels	Noise Environments	Subjective Evaluations
Near Jet Engine	140	Deafening	128 times as loud
Civil Defense Siren	130	Threshold of Pain	64 times as loud
Hard Rock Band	120	Threshold of Feeling	32 times as loud
Accelerating Motorcycle at a Few Feet Away	110	Very Loud	16 times as loud

Table N.1: Common Sound Levels and Noise Sources

Noise Source	A-Weighted Sound Level in Decibels	Noise Environments	Subjective Evaluations
Pile Driver; Noisy Urban Street/Heavy City Traffic	100	Very Loud	8 times as loud
Ambulance Siren; Food Blender	95	Very Loud	
Garbage Disposal	90	Very Loud	4 times as loud
Freight Cars; Living Room Music	85	Loud	
Pneumatic Drill; Vacuum Cleaner	80	Loud	2 times as loud
Busy Restaurant	75	Moderately Loud	
Near Freeway Auto Traffic	70	Moderately Loud	Reference Noise Level
Average Office	60	Quiet	½ times as loud
Suburban Street	55	Quiet	
Light Traffic; Soft Radio Music in Apartment	50	Quiet	¼ times as loud
Large Transformer	45	Quiet	
Average Residence without Stereo Playing	40	Faint	⅛ times as loud
Soft Whisper	30	Faint	
Rustling Leaves	20	Very Faint	
Human Breathing	10	Very Faint	Threshold of hearing

Notes: Compiled by LSA Associates, Inc., 2004.

The human ear is so constructed that we can hear or be exposed to a wide range of frequencies and intensities without damaging the delicate components of our inner ear. However, if excessively loud noises are frequent or sustained, the damage may be permanent, and such noise-induced hearing loss cannot be restored, either through surgical procedures or hearing aids.

There are other considerations besides the potential physical damage to the ear in assessing the effect of noise on humans. Varying degrees of noise affect humans in different ways. Noise above 35-45 decibels will disturb a sleeping person; noise between 50-60 decibels makes it difficult to carry on a quiet conversation; and with noise above 85 decibels, stress reactions can be expected.

Components of the Noise Environment within the City

In urbanized areas such as the City of Rancho Palos Verdes, the noise environment generally includes two major components: transportation noise sources and community noise sources. Sensitive noise receptors include residences, schools, medical facilities, and similar uses that are

sensitive to noise. In general, the City's residential communities are spread throughout the entire City. These sensitive land uses, along with schools, medical buildings, nursing homes, and churches, may be potentially affected by the noise associated with increased traffic on the City's major arterial roadways, as well the construction and operation of future development projects in the community. Finally, the transmission of sound and vibration through the common walls and/or floors of condominiums, apartments, hotel rooms and other non-detached single-family structures are critical components of the enjoyment of quiet interior environments.

The following is a discussion of the 3 major components of the noise environments within the City of Rancho Palos Verdes: transportation noise sources, community noise sources and structural transmission of sound and vibration.

Transportation Noise Sources

Transportation Noise Sources include automobiles, trucks, motorcycles, buses, trains, **helicopters** and planes. Rancho Palos Verdes has no railroad lines either in or abutting the City. Rail traffic in the Port of Los Angeles may be audible at times to residents on the east side of the City, but does not pose a substantial impediment to residents' quiet enjoyment of their property.

There are no designated airport take-off or approach paths over the City. This is true of aircraft taking off from or landing at Los Angeles International Airport (LAX), Long Beach Daugherty Field (LGB), or Torrance Zamperini Field (TOA), which are the three (3) airfields nearest to the City. However, over the years the City's residents have increasingly reported noise complaints regarding commercial and general aviation aircraft flying over and just off-shore from the Palos Verdes Peninsula. This includes commercial aircraft departing LAX for points east and "looping" counterclockwise around the Peninsula to head east; small planes towing advertising banners; pilot training, test flights and aerobatics; and high-altitude commercial jet over-flights. Table N.2 below summarizes average daily operations at several nearby airfields.

Table N.2: Nearby Public Airfield Operations

Airfield	Average Daily Operations (Annual)			
	Total	Commercial	General Aviation	Other
Los Angeles (LAX)	1,115	80%	3%	17%
Long Beach (LGB)	831	10%	88%	2%
Torrance (TOA)	494	--	99%	1%
Hawthorne (HHR)	220	--	99%	1%
Compton (CPM)	181	--	100%	--
Catalina (AVX)	45	--	86%	14%

Notes: Average daily operations based upon data reported for the most recent 12-month period, accessed at http://www.airnav.com on August 30, 2010. "Other operations" include military aircraft and air taxi services.

With respect to aircraft noise, in late 2010 the Federal Aviation Administration (FAA) was considering the imposition of Class C airspace for LGB to replace the current Class D airspace for this airfield. Among the effects of this proposed change would be the expansion of the area surrounding LGB that would be subject to local air traffic control, including a designated off-shore area over the ports of Los Angeles and Long Beach that is used for pilot training, test flights and aerobatics. The imposition of Class C airspace for LGB was likely to displace these activities to a designated area off-shore from the Palos Verdes Peninsula that is not currently used as heavily as the area over the ports. This relocation is likely to result in noise impacts to the City's residents in the form of increased low-altitude over-flights by general aviation aircraft to reach the off-shore area from LGB and other nearby airfields, and increased use of the off-shore area pilot training, test flights and aerobatics.

Since 2010, the City has also been involved with issues related to helicopter routes to and from Torrance airport. In 2011, the so-called "South Crenshaw" helicopter route was approved by the Torrance City Council, based in part upon input from our City. This route avoids subjecting sensitive receptors—such as the Terranea Resort, Abalone Cove Shoreline Park and residences in the *Portuguese Bend* community—to helicopter noise.

Rancho Palos Verdes is served by three (3), regularly-scheduled regional and sub-regional transit providers: the Los Angeles Metropolitan Transit Authority (Metro or MTA), the Palos Verdes Peninsula Transit Authority (PVPTA), and the Los Angeles Department of Transportation (LADOT). The routes and services provided by these transit agencies are discussed in detail in the Circulation Element. Marymount College Palos Verdes also operates shuttle buses between its Palos Verdes Drive East campus and its two (2) off-campus housing complexes in San Pedro. The minimal contribution of buses to transportation noise levels in Rancho Palos Verdes is reflected in the noise contour map (see Figure N.1 in "Measurement of Noise within the City" below). The effect of vehicular noise as emitted from the City's arterials and major collectors is also reflected in this noise contour map.

Community Noise Sources

Community noise has two basic components: steady state, or constant level noise; and intermittent, single-event noise. These two types of noise affect the outdoor noise level, causing it to rise above the ambient noise level. Ambient noise is the all-encompassing noise within a given environment.

Steady State Noise

In Rancho Palos Verdes, steady state noise would include noise generated from traffic flows, activities around service stations, Golden Cove Center, Peninsula Center, the commercial strip along Western Avenue, and other non-residential uses in the community. A neighbor's air conditioner or pool equipment might also be considered as contributors to steady state or quasi-steady state noise intruders.

For the most part, the impact of these steady state noise intruders can be mitigated through the use of land strip buffers, landscaping, berms and site design. These solutions would be quite effective in mitigating noise intrusion for both traffic and non-residential steady state noise generators.

Controlling noise intrusion emitted by residential steady state noise producers will require an ordinance which will prescribe setbacks and quantifiable permissible noise level limits.

Single-Event or Intermittent Noise

Although of shorter duration, the intermittent or single-event noises are often more annoying than the steady state constant level noise. These include such noise as a plane flying overhead, a neighbor with the stereo or television turned up too loud, barking dogs, or a roaring motorcycle.

The annoyance caused by intermittent sources is heightened because of the difficulty in controlling such noise intrusion. The intermittent nature of the noise makes the enforcement of noise control ordinances extremely difficult. Even after the development of a noise ordinance, which could set quantifiable permissible noise level limits, it can only be enforced if the enforcing official is present at the time the permissible noise level is being exceeded. For these types of noise intrusions, courtesy and respect for one's neighbor is the most efficient mitigating measure that can be exercised.

Although the industry component of noise is inapplicable to Rancho Palos Verdes, it should be noted that noise from the construction of new homes is definitely industry related. Unlike other single event noises, construction noises tend to be steady state noise. The operation of bulldozers, heavy trucks, and the non-rhythmic pounding of hammers present a continuous noise intrusion violating the peace, quiet, and serene nature of any community in Rancho Palos Verdes.

The City controls construction noise by setting constraints and guidelines in the building permit process. Some methods to accomplish this include: (1) Controlling hours of operation; (2) Designating the routes trucks and other construction-related vehicles are to use in traveling to and from the various project sites; and (3) In some areas, where several parcels are involved in close proximity to existing residents, temporary screening measures should be considered.

Structural Transmission of Sound and Vibration

The predominant type of structure found in Rancho Palos Verdes is the detached, single-family residence. However, the City also includes attached, single- and multi-family residences in the form of townhomes, condominiums and apartments. Attached dwelling units present opportunities for the transmission of both sound and vibration through common walls and floors, which may tend to seriously degrade the interior noise environment and privacy of these

dwellings. Similar issues and impacts may occur with other types of institutional and transient-occupancy uses, such as congregate car facilities and hotels.

Sound Transmission Control Standards in the California Administrative Code, Title 24, Building Standards, Chapter 2.5 outline noise insulation performance standards for new hotels, motels, apartment houses, and dwellings other than detached single-family units. For projects near noise sources (airport, major roads, and industrial areas), an acoustical analysis may be required to show compliance with these standards.

The Rancho Palos Verdes Development Code also establishes development standards for attached dwelling units. These standards include minimum requirements for the sound transmission class (STC) and impact insulation class (IIC) of common wall and floor assemblies, as well as the appropriate insulation of plumbing fixtures and water and drainage lines within these assemblies.

Measurement of Noise within the City

Methodology for Developing Current Noise Level Contours

Pursuant to Section 65302(f) of the Government Code, a noise contour map of General Plan build-out conditions has been prepared (see Figure N.1). The purpose of the noise contour map is to identify the estimated noise levels at varying distances from the City's major arterials roadways and to describe the potential noise effects upon adjacent land uses. Exterior land uses along the major arterials within the City limits would be potentially exposed to high noise levels if outdoor active use areas such as backyards and/or patios/balconies are directly adjacent to these roadways.

In creating the noise contour map, the Federal Highway Administration (FHWA) highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate highway traffic-related noise conditions along major arterials within the City limits. This model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The resultant noise levels are weighted and summed over 24-hour periods to determine the CNEL values. Traffic noise would be considered low if the 70, 65, and 60 dBA CNEL contours are all confined within the roadway right-of-way; moderate if the 70 dBA CNEL contour is confined within the roadway right-of-way but the 65 and 60 dBA CNEL contours extend to beyond the right-of-way; and high if the 70, 65, and 60 dBA CNEL contours all extend to beyond the roadway right-of-way. As depicted in the noise contour map (Figure N.1), traffic noise along the major arterials within the City range from moderate (Highridge Road, Indian Peak Road, Miraleste Drive, Palos Verdes Drive (South, East and West), Silver Spur Road, Crest Road, Crestridge Road, Western Avenue, and a portion of Crenshaw Boulevard and Hawthorne Boulevard) to high (Hawthorne Boulevard and majority of Crenshaw Boulevard).

Additionally, ambient noise monitoring was conducted within the City at 33 locations in October 2009 and August 2010. This monitoring demonstrated that ambient noise within the City is moderate, with the L_{eq} ranging from 42.4 to 75.0 dBA. In general, vehicular traffic is the dominant noise source within the City, especially in areas adjacent to arterials and major collector streets. Other noise sources that contributed to the ambient noise included car alarms, engine startups, car doors shutting, reverse beeping, car brakes, honking, lawn mowers, weed whackers, dust blowers, people, music, shopping carts, dogs barking, construction activity, birds/crows chirping, whistle blowing, school bell ringing, airplane and helicopter overflight, ambulance siren, children playing at playground, air conditioning units, chain-link fence clanking, and trees rustling in the wind.

Projected Noise Growth and Measures to Reduce Potential Noise Effects

The General Plan calls for a slight population increase though General Plan build-out. The bulk of this increase will be reflected in low density residential development, therefore not requiring the extensive and on-going use of heavy trucks that commercial, industrial, or other land uses might induce. Heavy trucks are a major contributor to increased noise levels in the environment.

In addition to the low density residential growth which will continue to characterize Rancho Palos Verdes' future development, the State of California has set noise standards for motor vehicles. Since the State regulates noise emissions from motor vehicles, a major source of noise in Rancho Palos Verdes, the City is pre-empted from passing any laws or ordinances called for stricter regulations or enforcement related to vehicle noise emissions. For this reason, the City is highly dependent on the State for the control and the enforcement in this area. Therefore, the City should encourage the State Legislature and the State law enforcement agencies, such as the California Highway Patrol, to actively pursue legislation to reduce and control vehicle noise emissions and to vigorously enforce all such laws.

Active enforcement on the part of State agencies, coupled with a viable City ordinance controlling community noise will ensure that Rancho Palos Verdes' future environment will be free of abusive sound and unnecessary noise.

The following is a discussion of the 4 major components of future noise growth within the City and the corresponding measures needed to reduce these noise effects: traffic noise impacts, construction noise impacts, steady state noise impacts, and aircraft and train noise impacts.

Traffic Noise Impacts

After General Plan build out, future traffic noise levels along the major arterials and collector roads within the City would add 0.7 to 2.3 dBA to corresponding existing traffic noise levels along arterials and major collector roads within the City. This range of traffic noise level

changes is not considered significant and thus no significant growth-related traffic noise impacts would occur on existing uses throughout the City.

Based on the Land Use Element and Circulation Element of the General Plan, it is anticipated that development would occur on vacant parcels along the City's major arterial roadways before General Plan build out in 2035. To reduce potential noise impacts to these vacant parcels, one of the City's existing noise policies requires residential uses in the 70 dBA location range to provide regulatory screening or some other noise-inhibiting agent to ensure compliance with the noise ordinance.

Outdoor Activity Use Areas

The noise contour map (Figure N.1) shows that the 65 dBA CNEL noise contour along arterials and major collector roads would potentially affect the outdoor active use areas such as backyards, patios, or balconies along these roads. To address these noise effects, outdoor active use areas proposed within the impact zone of the 65 dBA CNEL should require a sound wall to ensure that the 65 dBA CNEL exterior noise standard is not exceeded. Therefore, outdoor active use areas, such as backyards, patios, or balconies proposed on vacant parcels that are within the 65 dBA CNEL contour may require mitigation measures, such as stand-alone sound barriers (along the property line for the backyards or along the perimeter of the patios and/or balconies), to reduce the exterior traffic noise to 65 dBA CNEL or lower. If there are substantial differences between the elevations of the noise-generating roadway segment and the private outdoor active use areas, sound barriers are most effective when constructed at the side with higher elevation.

Interior Noise Levels

Based on the data provided in the EPA's Protective Noise Levels (EPA 550/9-79-100, November 1979), standard homes in Southern California provide at least 12 dBA of exterior to interior noise attenuation with windows open and 24 dBA with windows closed. Therefore, homes exposed to exterior traffic noise levels lower than 69 dBA CNEL (45 + 24 = 69 dBA) would not have their interior noise level exceeding the 45 dBA CNEL standard with windows closed. With windows open, homes exposed to exterior traffic noise levels exceeding 57 dBA CNEL (45 + 12 = 57 dBA) would exceed the 45 dBA CNEL interior noise standard. Residential homes proposed within the 45 dBA CNEL interior noise contour that have no natural or manmade barriers providing shielding effect would be potentially exposed to traffic noise levels exceeding 69 dBA CNEL and would require mitigation measures such as building façade upgrades (double-paned windows, solid-core wood doors, etc). In addition, mechanical ventilation, such as an air-conditioning system, may be required for dwelling units proposed on vacant parcels without shielding from natural or manmade barriers to ensure that windows can remain closed for prolonged periods of time.

Measures to Reduce Potential Traffic Noise Impacts

Outdoor Land Uses: All outdoor active-use areas (backyard, patio, or balcony, etc.) proposed within the following distances from the roadway centerline should require a sound wall with a minimum wall height of 5 ft to reduce the exterior noise level to 65 dBA CNEL or lower for residential or other noise-sensitive land uses:

- Crest Road between Hawthorne Boulevard and Crenshaw Boulevard, 98 ft;
- Hawthorne Boulevard between Crest Road and Vallon Drive, 154 ft;
- Palos Verdes Drive East between north City limit and Miraleste Drive, 94 ft;
- Palos Verdes Drive East between Miraleste Drive and north of Crest Drive, 79 ft;
- Palos Verdes Drive between Ganado Drive and Palos Verdes Drive South, 39 ft;
- Palos Verdes Drive West between north City limit and Hawthorne Boulevard, 116 ft;
- Palos Verdes Drive West between Hawthorne Boulevard and Palos Verdes Drive South, 142 ft; and
- Silver Spur Road between north City limit and north of Hawthorne Boulevard, 81 ft.

Interior Noise: To meet the State's 45 dBA CNEL interior-noise standard and to achieve the indoor air-exchange ventilation requirements specified in Chapter 35 of the Uniform Building Code, all residential structures along the following roadway segments proposed within the following distances from the roadway centerline on the vacant parcels and without shielding from natural or manmade barriers should have mechanical ventilation to ensure that windows can remain closed for a prolonged period of time.

- Crest Road between Hawthorne Boulevard and Crenshaw Boulevard, 328 ft;
- Hawthorne Boulevard between Crest Road and Vallon Drive, 520 ft;
- Palos Verdes Drive East between north City limit and Miraleste Drive, 322 ft;
- Palos Verdes Drive East between Miraleste Drive and north of Crest Drive, 268 ft;
- Palos Verdes Drive between Ganado Drive and Palos Verdes Drive South, 135 ft;
- Palos Verdes Drive West between north City limit and Hawthorne Boulevard, 388 ft;
- Palos Verdes Drive West between Hawthorne Boulevard and Palos Verdes Drive South, 479 ft; and
- Silver Spur Road between north City limit and north of Hawthorne Boulevard, 274 ft.

In addition, residential homes proposed within the following distances from the roadway centerline that have no natural or manmade barriers providing shielding effect should have building façade upgrades (double-paned windows, solid-core wood doors, etc):

- Crest Road between Hawthorne Boulevard and Crenshaw Boulevard, 53 ft;
- Hawthorne Boulevard between Crest Road and Vallon Drive, 83 ft;
- Palos Verdes Drive East between north City limit and Miraleste Drive, 51 ft;
- Palos Verdes Drive East between Miraleste Drive and north of Crest Drive, 43 ft;
- Palos Verdes Drive West between north City limit and Hawthorne Boulevard, 63 ft;
- Palos Verdes Drive West between Hawthorne Boulevard and Palos Verdes Drive South, 77 ft; and
- Silver Spur Road between north City limit and north of Hawthorne Boulevard, 44 ft.

Construction Noise Impacts

Short-term noise impacts are associated with excavation, grading, and erecting of buildings during construction. Construction-related short-term noise levels are higher than existing ambient noise levels but would no longer occur once construction of the individual project is completed.

Two types of short-term noise impacts can occur during the construction of any individual project. First, construction crew commutes and the transport of construction equipment and materials to the individual construction site would incrementally increase noise levels on access roads leading to that individual site. There will be a relatively high single-event noise exposure potential at a maximum level of 87 dBA L_{max} with trucks passing at 50 feet (50'). However, the projected construction traffic will be small when compared to the existing traffic volumes on affected streets in the vicinity, and its associated long-term noise level change will not be perceptible. Therefore, short-term construction-related worker commutes and equipment transport noise impacts would not be substantial.

The second type of short-term noise impact is related to noise generated during excavation, grading, and/or construction. Construction is performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases may change the character of the noise generated on the site. Therefore, the noise levels vary as construction progresses. Typical maximum noise levels range up to 91 dBA at 50 ft during the noisiest construction phases.

Measures to Reduce Potential Construction Noise Impacts

Construction will be limited to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday in accordance with the City's Municipal Code requirements. No construction activities are permitted outside of these hours or on Sundays and legal holidays unless a special construction permit is obtained from the Director of the Community Development Department. The following measures can be implemented to reduce potential construction noise impacts on sensitive receptors adjacent to the individual project development area:

1. During all site excavation and grading, the project contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.
2. The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.
3. The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.
4. The project contractor may be required to construct a temporary sound barrier/wall. The temporary construction barriers can use particle boards or gypsum boards, with no gaps or holes in them that could potentially deteriorate the noise attenuation effect.

Stationary Noise Impacts

Stationary noise impacts associated with commercial uses with potential loading/unloading activity noise need to be mitigated. As required in the City's Municipal Code, unless otherwise specified in an approved conditional use permit or other discretionary approval, all deliveries of commercial goods and supplies; trash pick-up, including the use of parking lot trash sweepers; and the operation of machinery or mechanical equipment that emits noise levels in excess of 65 dBA, as measured from the closest property line to the mechanical equipment, shall only be allowed on commercial properties that abut a residential district between the hours of 7:00 a.m. and 7:00 p.m., Monday through Sunday.

Residential stationary noise sources include air conditioners, pool equipment, and similar outdoor mechanical equipment that operates during the day or night.

Measures to Reduce Potential Stationary Source Noise Impacts

Any residual noise impacts from off-site stationary noise sources should be mitigated with stand-alone noise barriers with sufficient height to block the line-of-sight between the stationary sources of concern and the receptor locations.

Aircraft and Train Noise Impacts

The City has no railroad lines either in or abutting the City, and there are currently no regularly scheduled flight paths or aircraft over the City. This is true of aircraft taking off or landing at Los Angeles International Airport, and Long Beach and Torrance airfields, although the City has been involved since 2010 with issues related to helicopter routes to and from Torrance airport. In 2011, the so-called "South Crenshaw" helicopter route was approved by the Torrance City Council, based in part upon input from our City. This route avoids subjecting sensitive receptors—such as the Terranea Resort, Abalone Cove Shoreline Park and residences in the *Portuguese Bend* community—to helicopter noise. Therefore, other than occasional aircraft overflight that may result in temporary annoyance, no significant aircraft or train noise impacts would occur. No mitigation measures are required.

Policies

Transportation Noise

1. Encourage through traffic to existing arterials and collectors so that local roads are not used as by-passes or short-cuts in order to minimize noise.

2. Control traffic flows of heavy construction vehicles en route to and from construction sites to minimize noise.

3. Encourage the State and Federal governments to actively control and reduce vehicle noise emissions.

4. Encourage State law enforcement agencies such as the California Highway Patrol to vigorously enforce all laws which call for the control and/or reduction of noise emissions.

Community Noise

5. Develop an ordinance to control noise commensurate with local ambiance.

6. Maintain current and up-to-date information on noise control measures, on both fixed point and vehicular noise sources.

7. Coordinate with all public agencies, especially our adjoining jurisdictions to study and/or control noise emissions.

Land Use Planning and Noise Control

8. Mitigate impacts generated by steady state noise intrusion (e.g., with land strip buffers, landscaping, and site design).

9. Regulate land use so that there is a minimal degree of noise impact on adjacent land uses.

10. Require strict noise attenuation measures where appropriate.

11. Review noise attenuation measures applicable to home, apartment, and office building construction, make appropriate proposals for the City zoning ordinance, and make appropriate recommendations for modifying the Los Angeles County Building Code as it applies to the City.

12. Require the minimization of noise emissions from commercial activities by screening and buffering techniques.