3.4 Noise

This section evaluates whether implementation of the 2004 Land Use and Mobility Elements, Zoning Code Revisions, and the Central District Specific Plan will substantially increase ambient noise levels (short-term and long-term) or expose persons to noise levels in a manner inconsistent with adopted City noise/land use compatibility criteria. This section uses the General Plan Noise Element, adopted in 2002, as the primary reference document regarding descriptions of community noise.

Through the Initial Study process, it was determined that the project will have a less than significant noise impact with respect to violation of the City’s noise ordinance and exposure of persons to groundborne noise. The Initial Study also indicated that no impact will result due to the presence of any airport or private airstrip.

Environmental Setting

Noise is generally defined as unwanted sound. Noise can result in speech interference and disrupt activities at home and work, including sleep patterns and recreational pursuits. The long-term effects of excessive noise exposure are physical as well as psychological. Physical effects may include headaches, nausea, irritability, constriction of blood vessels, changes in heart and respiratory rate, and increased muscle tension.

How Sound is Measured

Sound levels are expressed on a logarithmic scale of “decibels” in which a change of 10 units on the decibel scale reflects a 10-fold increase in sound energy. A 10-fold increase in sound energy roughly translates to a doubling of perceived loudness.

In evaluating human response to noise, acousticians compensate for the response of people to varying frequency or pitch components of sound. The human ear is most sensitive to sounds in the middle frequency range used for human speech and is less sensitive to lower and higher-pitched sounds. The “A” weighting scale is used to account for this sensitivity. Thus, most community noise standards are expressed in decibels on the “A”-weighted scale, abbreviated dB(A). Zero on the decibel scale is set roughly at the threshold of human hearing. Sound levels of common sounds in the environment include office background noise at about 50 dB(A); human speech 10 feet away at about 60 to 70 dB(A); cars driving by 50 feet away at 65 to 70 dB(A); trucks driving by 50 feet away at 75 to 80 dB(A); and aircraft flights directly overhead one mile away at about 95 to 100 dB(A).

Noise Standards

The community noise environment consists of a wide variety of sounds, some near and some far away, which vary over the 24-hour day. People respond to the 24-hour variation in noise but are most sensitive to noise at night. California standards for community noise use the Community Noise Equivalent Level (CNEL), in which a 5-decibel penalty is added to the 7:00 to 10:00 P.M.
period, and a 10-decibel penalty to the 10:00 P.M. to 7:00 A.M. period. The U.S. Environmental Protection Agency uses the Day-Night Noise Level (Ldn) scale, which is identical to the CNEL except that the evening noise penalty is not added on this scale. For all practical purposes, the CNEL and Ldn scales are equivalent.

Figure 18, Guidelines for Noise Compatible Land Use, illustrates the City's noise/land use compatibility matrix set forth in the Noise Element. Residential uses generally are the most sensitive to noise. Other noise-sensitive land uses include schools, libraries, hospitals, churches, and hotels. The City has determined maximum acceptable noise levels for each land use, which range from “clearly acceptable” to “normally acceptable.” As indicated in Figure 18, the City has classified residential land uses as the most sensitive land use category, with 70 dB(A) as the highest “normally acceptable” noise level, and 75 dB(A) the highest “conditionally acceptable” level. Schools, libraries, churches, hospitals, and nursing homes are assigned a maximum “normally acceptable” dB(A) of 70 and a maximum “conditionally acceptable” dB(A) of 80. Industrial land uses have a “clearly acceptable” dB(A) up to 75 dB(A). Any project to be constructed within the “conditionally acceptable” category is subject to a noise analysis to identify reduction requirements, including, if necessary, incorporation of insulation features into project design.

Existing Noise Levels

Pasadena is primarily affected by roadway and freeway traffic noise, and to a lesser degree, industrial and commercial activities located adjacent to residential uses. Mechanical equipment, outdoor recreational facilities, leaf blowers, helicopter and airplane flyovers, and construction equipment are examples of sources that can contribute to neighborhood noise.

Various locations within Pasadena were surveyed in 2001 and 2002 to establish existing levels of noise. These measurement sites were selected to determine the impact from major sources of noise within the City. A total of forty 20-minute and 10 weeklong measurements were conducted, providing a basis for understanding the overall ambient noise environment of Pasadena.

Vehicular Traffic Noise

Traffic noise contours were calculated for the Pasadena Noise Element using the Federal Highway Administration’s Highway Traffic Noise Prediction Model, U.S. Department of Transportation. Noise contours are used to provide a general visualization of sound levels rather than absolute lines of demarcation. The primary noise generators in Pasadena include I-710, SR-110 (Arroyo Parkway), SR-134, and I-210. Figure 19, Existing Noise Contours (2001), shows the noise contours along the major existing transportation noise sources. As the figure indicates, the highest noise levels occur along I-210 and SR-134. Large sections along the freeways are currently impacted by vehicular noise, including residential neighborhoods. Some neighborhoods closest to the freeway experience noise levels above 70 dB(A), the highest level considered “normally acceptable” by the City for residential uses.
<table>
<thead>
<tr>
<th>LAND USE CATEGORY</th>
<th>COMMUNITY NOISE EXPOSURE</th>
<th>Ldn or CNEL, dBA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>55</td>
<td>60</td>
</tr>
<tr>
<td>RESIDENTIAL - LOW DENSITY SINGLE FAMILY, DUPLEX, MOBILE HOMES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RESIDENTIAL - MULTI-FAMILY AND MIXED COMMERCIAL/RESIDENTIAL USE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRANSIENT LODGING - MOTELS, HOTELS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCHOOLS, LIBRARIES, CHURCHES, HOSPITALS, NURSING HOMES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUDITORIUMS, CONCERT HALLS, AMPHITHEATRES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPORTS ARENA, OUTDOOR SPECTATOR SPORTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLAYGROUNDS, NEIGHBORHOOD PARKS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GOLF COURSES, RIDING STABLES, WATER RECREATION, CEMETERIES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OFFICE BUILDINGS, BUSINESS COMMERCIAL AND PROFESSIONAL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INDUSTRIAL, MANUFACTURING, UTILITIES, AGRICULTURE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

- CONDITIONALLY ACCEPTABLE
  If new construction or development proceeds, an analysis of the noise reduction requirements should be made and needed noise insulation features included in the design.

- NORMALLY ACCEPTABLE
  New construction or development should be undertaken after an 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.

- NORMALLY UNACCEPTABLE
  New construction or development should generally not be undertaken, unless it can be demonstrated that an interior level of 45 dBA can be achieved.

* Please note that these guidelines are general and may not apply to specific sites.
Source: California General Plan Guidelines, 1998, as modified by the City of Pasadena, 2002.

Figure 18
Guidelines for Noise Compatible Land Use
legend

- City Boundary
- 75 dBA Contour
- 70 dBA Contour
- 65 dBA Contour
- 60 dBA Contour

Note:
Contour intervals are estimates and approximations only; noise levels at specific sites will vary.

Source: City of Pasadena Revised Noise Element, December 2002.

Figure 19
Existing Noise Contours (2001)
The Gold Line light rail service represents another source of vehicular noise. Noise levels associated with the light rail line were estimated in the 1993 EIR prepared for the project. Light rail activity (track noise and whistles) was predicted to impact 27 residences along the portion of the at-grade alignment through South Pasadena and Pasadena (with no separate data provided solely for Pasadena). As a mitigation measure for these effects, sound walls ranging from 4 to 8 feet high have been constructed at noise-sensitive areas along the rail right-of-way.¹

Stationary and Other Noise Sources

Stationary noise sources that affect noise-sensitive land uses in Pasadena include the Rose Bowl and Rose Bowl Aquatic Center (when events occur) in the Central Arroyo area and Pasadena City College. Neighborhoods in these areas experience intermittent noise during the time of special events such as concerts, swim meets, and other forms of entertainment.

Industrial noise is one of the less prevalent community noise problems in Pasadena, although neighbors of manufacturing plants can be disturbed by sources such as fans, motors, and compressors mounted on the sides of buildings. Interior noise can also be transmitted to the community through open windows and doors, and even through building walls. Commercial areas can produce noise from heavy vehicular and pedestrian traffic, cooling equipment and noise from truck deliveries made to businesses.

In addition, the Police Firing Range in Eaton Canyon generates noise. Concerns with the firing range as it is currently constructed have caused the City to consider rebuilding the facility to improve safety and lessen the impact on the surrounding neighborhoods.² The results of a noise study for the existing facility indicate that to reduce impulse noise to acceptable levels, a new shooting range constructed at the site would have to be enclosed. At the end of March 2004, the Pasadena City Council authorized spending of $1.9 million for an indoor firing range to be constructed at the site to improve safety and reduce noise levels.³

Related Plans and Programs

California Noise Insulation Standards (Title 24)

In 1974, the California Commission on Housing and Community Development adopted noise insulation standards for residential buildings (Title 24, Part 2, California Code of Regulations). Title 24 establishes standards for interior room noise (attributable to outside noise sources). The regulations specify that acoustical studies must be prepared whenever a residential building or structure is proposed to be located near an existing or adopted freeway route, expressway, parkway, major street, thoroughfare, rail line, rapid transit line, or industrial noise source, and where such noise source or sources create an exterior CNEL (or Ldn) of 60 dB(A) or greater. Such acoustical analysis must demonstrate that the residence has been designed to limit intruding noise to an interior CNEL (or Ldn) of no more than 45 dB(A).

City of Pasadena Noise Ordinance

The City of Pasadena adopted its Noise Ordinance (Ordinance No. 5118) in 1973, which establishes exterior noise standards generally by land use and the maximum duration of time that the noise standards may be exceeded without being considered a nuisance punishable by law. The Ordinance, as set forth in the City’s Municipal Code Title 9 Section 36, Noise Restrictions, regulates ambient noise levels, which it defines as either actual measured ambient noise levels, or presumed ambient noise levels throughout the City, whichever is highest. The Noise Ordinance contains a table that defines noise districts with assigned maximum presumed ambient noise levels (dB[A] levels) throughout the City, but the Noise Element is more recent and is used to determine threshold levels, as discussed below.

Thresholds Used to Determine Level of Impact

A significant noise impact will be created if:

- Development pursuant to the project will increase ambient noise levels above the “normally acceptable” category for any land use, as established in the City’s noise/land use compatibility matrix in the Noise Element

- The project will allow new noise sensitive development, such as residences, to be located in areas experiencing above “normally acceptable” levels of noise

Environmental Impact

Vehicular Traffic Noise

2004 Land Use Element and Zoning Code Revision
The 2004 Land Use Element establishes the distribution and intensity of land use within the City and identifies where growth and development efforts are to be focused over the next 11 years. Development pursuant to the 2004 Land Use Element will result in 6,581 new residential units and 4.97 million square feet of new non residential square footage. Since Pasadena is highly urbanized, development will consist primarily of infill projects on underutilized land and more intensive development in other currently developed areas. New development will generate additional traffic that will increase noise levels along roadways and freeways. As roadway volumes increase over time, the ambient noise levels on adjacent properties will also increase.

Figure 20, Future Noise Contours (2015), depicts the predicted CNEL contours for horizon year 2015. As indicated, vehicular traffic on I-210 and SR-134 will continue to be the predominant sources of noise within the City. As discussed under Environmental Setting, residential neighborhoods abut large sections of these freeway corridors. By comparing Figures 19 and 20, a determination can be made as to whether any expansion of the CNEL contours due to increased traffic noise might expose future residents to unacceptable noise levels, or whether any residences or other noise-sensitive uses might locate within an area with an unacceptable noise level.
Legend

- City Boundary
- 75 dBA Contour
- 70 dBA Contour
- 65 dBA Contour
- 60 dBA Contour

Note:
Contour intervals are estimates and approximations only; noise levels at specific sites will vary.

Source: City of Pasadena Revised Noise Element, December 2002.

Figure 20
Future Noise Contours (2015)
The outermost boundary of the noise intervals, at 60 dB(A), is shown to expand by approximately a quarter of a mile at most. Residences along the freeway corridors will experience an impact, according to the City’s Guidelines for Noise Compatible Land Uses (Figure 18) if the CNEL intervals grow to expose homes to noise levels above 70 dB(A), which is categorized as “conditionally acceptable.” The red area on the Noise Contour maps corresponds with the 75 dB(A) noise level; this contour is shown to expand almost imperceptibly from Existing Noise (Figure 19) to Future Noise (Figure 20). The 2004 Land Use Element will allow future residential development to locate within those areas anticipated to experience a noise environment higher than 70 dB(A), as shown on Figure 18, the “normally acceptable” noise range for this land use. Thus, homes may be constructed in areas where future noise levels are considered “conditionally acceptable.”

As required by the Guidelines for Noise Compatible Land Use in the Noise Element (Figure 18), residential projects undertaken within the “conditionally acceptable” range will be required to install noise-insulating features to reduce impacts to future residents. Additionally, the following objectives and policies included in the Noise Element are intended to substantially lessen noise impacts on new and existing development to acceptable levels:

**Objective 1:** The City will work to reduce the effects of noise from freeway traffic on residential and other sensitive land uses.

Policy 1a: The City will encourage noise compatible land uses near existing freeways.

Policy 1b: The City will cooperate with Caltrans and Metropolitan Transportation Authority (MTA) to landscape or install noise attenuation along freeways adjacent to residential or noise sensitive uses.

**Objective 2:** The City will work to reduce the effects of traffic-generated noise from major roadways on residential and other sensitive land uses.

Policy 2a: The City will encourage noise-compatible land uses along major roadways.

Policy 2b: The City will encourage site planning and traffic control measures that minimize the effects of traffic noise in residential zones.

Policy 2c: The City will encourage the use of alternative transportation modes as stipulated in the Mobility Element (walking, bicycling, transit use, electric vehicles) to minimize traffic noise in the City.

Policy 2d: The City will work with local and regional transit agencies and businesses to provide transportation services that reduce traffic and associated noise as stipulated in the Mobility Element.

Policy 2e: The city will work to reduce the effects of traffic-related noise in residential neighborhoods, including but not limited to neighborhoods adjacent to South Orange Grove Boulevard, Saint John Avenue, Pasadena Avenue, California Boulevard, and other busy streets passing through residential neighborhoods.

Policy 2f: The City will implement, in cooperation with the community, the Neighborhood Traffic Management Program (NTMP) to control the speed and volume of traffic and
related noise impacts on local streets within the community, especially on residential streets adjacent to schools, parks, and community centers.

The following Implementation Measures in the Noise Element will carry out these policies:

Measure 1: The City will consult the guidelines for noise compatible land use shown in Guidelines for Noise Compatible Land Use to guide the appropriateness of land uses relative to roadway noise. [Policies 1a, 2a]

Measure 2: An acoustical study showing the ability to meet state noise insulation standards may be required for any development proposed in an area where the noise level, as indicated on Figures 2 and 3, exceeds the “clearly acceptable level” as determined by the City and shown in the Guidelines for Noise Compatible Land Use. [Policies 1a, 2a]

Measure 3: The City will enforce the California Noise Insulation Standards (Title 25 California Administration Code for future development and redevelopment) to ensure an acceptable interior noise level of 45dBA Ldn in habitable rooms. [Policies 1a, 2a]

Measure 4: The City will consider the use of alternative paving materials that can reduce traffic noise, as feasible, depending on roadway conditions and cost efficiency. [Policies 1b, 2b]

Measure 5: The City will consider the use of “traffic calming” devices, to reduce traffic speed in residential zones. [Policies 2b, 2d]

Measure 6: The City will cooperate with Caltrans in the planning of noise attenuation along freeways. [Policy 1b]

Measure 7: The City will periodically review major roadways and designated truck routes to reduce traffic in residential zones. [Policy 2b]

Measure 12: The City will monitor implementation of noise-related mitigation measures outlined in the General Plan FEIR to ensure effectiveness in minimizing noise from mobile sources. [Policies 2c, 2b, 2c]

Measure 24: The City will continue to enforce the Transportation Management Program Ordinance (Chapter 10.64 of the Pasadena Municipal Code) to reduce vehicle trips and associated noise. [Policies 2b, 2c, 2d]

The degree to which future individual development projects will be able to achieve noise reduction within areas having noise levels in excess of 70 dB(A) cannot be assessed. New residential development could, under some conditions, be located in areas where noise/land use conflicts cannot be fully mitigated with the measures cited above. Impact will be significant.
Conclusion:

Because noise-sensitive uses and residential development in particular will be located in areas where noise levels are anticipated to exceed 70 dB(A) and the degree to which mitigation could achieve reduction is not known, impact will be significant.

2004 Mobility Element

The 2004 Mobility Element guides the continuing development of a multi-modal circulation system that supports planned growth. Its implementation will facilitate the movement of people and goods within the City and provide access to the regional transportation network. The 2004 Mobility Element itself will not lead to the creation of traffic. The 2004 Mobility Element policies aim to mitigate the effects of future traffic volumes, including traffic-related noise impacts on local streets within the community. In particular, the 2004 Mobility Element directs traffic to designated travel corridors and discourages through traffic from using local streets to bypass congested intersections.

In an effort to protect Pasadena’s neighborhoods, the 2004 Mobility Element implements the City’s Neighborhood Traffic Management Program, (NTMP) which is intended to control the speed and volume of traffic on local streets (Implementation Action 5.5.3.1). The NTMP establishes ways to reduce the speed of traffic through neighborhoods, including speed humps, street narrowing, medians, necking-down of entryways, appropriate traffic signs, and police enforcement. The program proposes to reduce traffic volumes by establishing turn prohibitions during peak traffic hours, appropriate guide signs, traffic barriers, cul-de-sacs, islands, and other measures that would reduce vehicular speed through neighborhoods. As a result of this policy, even with additional development, traffic on residential streets is not expected to increase significantly; traffic noise levels on residential streets will remain at an acceptable level. In addition, Implementation Action 5.5.3.1 contains a measure to manage traffic volumes and speeds on local streets so that they are compatible with the character of the adjacent land uses. Particular attention is referenced for residential streets adjacent to schools, parks, and community centers.

The 2004 Mobility Element also recognizes certain streets where it is established City policy to control the growth of future through traffic volumes. These streets are designated as de-emphasized streets. The use of these streets for circulation is intended to focus on access to adjacent communities, either commercial areas or residential neighborhoods. Traffic management efforts are underway to direct increases in traffic to multimodal corridors and to enforce traffic restrictions on streets. No transportation improvements to increase traffic capacity will be made on identified de-emphasized streets. Those streets with this classification are shown in Tables 22 and 23.

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5 City of Pasadena. Policy 4.1.3.1: De-emphasized Streets, Mobility Element. 2003.
Table 22
North-South De-emphasized Streets

<table>
<thead>
<tr>
<th>Street</th>
<th>Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marengo Avenue</td>
<td>Del Mar Blvd. &amp; South City limit</td>
</tr>
<tr>
<td>Los Robles Avenue</td>
<td>Del Mar Blvd. &amp; South City limit</td>
</tr>
<tr>
<td>El Molino Avenue</td>
<td>City limits</td>
</tr>
<tr>
<td>Orange Grove Blvd</td>
<td>Columbia St. to Colorado Blvd.</td>
</tr>
<tr>
<td>Hill Avenue</td>
<td>210 Freeway to North City limit</td>
</tr>
</tbody>
</table>


Table 23
East-West De-emphasized Streets

<table>
<thead>
<tr>
<th>Street</th>
<th>Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington Blvd.</td>
<td>City limits</td>
</tr>
<tr>
<td>California Blvd.</td>
<td>Orange Grove Blvd. to St. John Avenue</td>
</tr>
<tr>
<td>California Blvd.</td>
<td>Lake Avenue to East City limit</td>
</tr>
</tbody>
</table>


The 2004 Mobility Element’s de-emphasized streets policy is supported by the following Implementation Actions:

Implementation Action 5.5.3.3: Manage De-emphasized Streets to Control Increases in Through Traffic.

- Recognize designated de-emphasized streets as routes where efforts will be made to control increases in through traffic. No transportation projects intended to increase traffic capacity will be made on these corridors and they will be protected from impacts of new developments

Implementation Action 5.5.4.2: Manage Truck Traffic.

- Require truck deliveries to be made in off-peak hours, especially in areas where intersections are congested, consistent with the City’s noise ordinance
- Limit the intrusion of commercial truck traffic on City streets by directing truck traffic to major arterials and enforcing appropriate traffic regulations

Implementation Action 5.5.3.1: Discourage Through-Traffic from Using Local Streets

- Make the most efficient use of major corridors and discourage traffic from using local streets to bypass congested intersections. Seek to eliminate or minimize the intrusion of traffic generated by new development into residential neighborhoods and on de-emphasized streets while preserving an adequate collector street system. Implement improved directional signage to discourage traffic from intruding into neighborhoods
Noise

- Apply traffic-management measures to control traffic speeds and volumes on local and local collector streets within residential neighborhoods to ensure safe and orderly traffic flows and reduce noise impacts associated with speeding vehicles.

- Manage traffic volumes and speeds on local collector and local streets so that they are compatible with the character of the adjacent land uses, the function of the street, and bicycle and pedestrian traffic.

- Implement the Neighborhood Traffic Management Program and related traffic-calming measures to limit the volume and speed of traffic on local streets.

- Promote safe travel in neighborhoods and enforce the traffic regulations at places such as schools, senior centers, and hospitals.

- Provide programs, services, and facilities that are compatible with neighborhood needs.

- Develop a handbook on the Neighborhood Traffic Management Program (NTMP) that informs interested community groups about traffic calming measures.

Implementation of the 2004 Mobility Element’s Implementation Actions will reduce traffic-related noise impacts on the City, especially in residential areas. The 2004 Mobility Element will not create a significant impact associated with noise, and no mitigation is necessary.

Conclusion:

The 2004 Mobility Element will not create a significant impact associated with noise, and no mitigation is required.

Central District Specific Plan

The Central District Specific Plan provides guidelines for focused growth and development within the Central District. The Specific Plan identifies land use intensities and provides for an increase in both residential and non-residential development within the planning area. The Central District is highly urbanized, and new development pursuant to implementation of the Specific Plan will be compact, consisting primarily of infill projects. New development will generate additional traffic that will increase noise levels along roadways and freeways throughout the City, although the Specific Plan area itself is not expected to experience noise above 75 dB(A) except in the small corridor along I-210 between the freeway and the Gold Line light rail. This area will not be developed with any noise-sensitive land use, and no areas of the Central District will lie within an incompatible noise zone as defined by the Noise Element Noise Compatible Land Use Table (Figure 18). Noise-related impact due to implementation of the Central District Specific Plan will be less than significant.

Conclusion:

Noise-related impact due to implementation of the Central District Specific Plan will be less than significant.
Stationary Noise

2004 Land Use Element and Zoning Code Revisions
New development resulting from long-term implementation of the 2004 Land Use Element may result in noise generated by non-residential projects, such as commercial centers, restaurants and bars, civic institutions, and civic centers. These types of uses are allowed throughout Pasadena and the Central District. The following Noise Element objectives and policies are designed to minimize stationary noise impacts:

Objective 5: The City will balance the effects of noise associated with events held in the Central Arroyo with the benefits of events occurring at Central Arroyo facilities.

Policy 5a: The City will continue to seek improvements to noise-generating equipment and activities at the Rose Bowl, Aquatic Center, Jackie Robinson Field, Brookside Park, Area H, and the future Kids Space Museum in order to minimize the effects of noise on nearby residents.

Policy 5b: The City will continue to coordinate events in the Central Arroyo to minimize noise to the degree feasible.

Objective 6: The City will minimize noise spillovers from commercial and industrial operations into adjacent residential neighborhoods and other sensitive uses, while maximizing the Land Use Element’s objectives to encourage mixed-use development in the Central District and other Specific Plan areas as well as to promote economic vitality.

Policy 6a: The City will encourage automobile and truck access to industrial and commercial properties abutting residential zones to be located at the maximum practical distance from residential zones.

Policy 6b: The City will limit the use of motorized landscaping equipment, parking lot sweepers, and other high-noise equipment on commercial properties if their activity will result in noise that adversely affects residential zones.

Policy 6c: The City will encourage limitations on the hours of truck deliveries to industrial and commercial properties abutting residential zones unless there is no feasible alternative or there are substantial transportation benefits for scheduling deliveries at another hour.

Noise generation and potential impacts to surrounding development will continue to be considered as part of the City’s review of individual future projects. The Noise Element also includes policies to reduce so-called “nuisance noise,” including that due to construction activity, as follows:

Objective 7: The City will minimize the effects of nuisance noise on sensitive land uses as defined in Figure 1 (of the Noise Element) to the degree feasible.

Policy 7a: Whenever possible, City-sponsored events that generate noise will be scheduled during hours when effects would be minimal.
Policy 7b: The City will encourage limitations on construction activities adjacent to sensitive noise receptors as defined in the Guidelines for Noise Compatible Land Use.

Policy 7c: The City will encourage construction and landscaping activities that employ techniques to minimize noise.

Policy 7d: The City will enforce noise level restrictions contained in the City of Pasadena Noise Regulations (Chapter 9.36 of the Municipal Code), except during federal, State, or local emergencies (such as power generators required for energy emergencies).

The following Implementation Measures will carry out these policies:

Measure 9: The City will review and update the Noise Restrictions Ordinance at least every five years (Chapter 9.36 of the Pasadena Municipal Code) to ensure effectiveness in controlling noise sources. [Policies 6b, 6c, 7b, 7c]

Measure 10: The City will enforce Chapter 9.37 of the Pasadena Municipal Code on the hours, use, and maintenance of leaf blowing machines. [Policy 7c]

Measure 11: The City will consider amending the Pasadena Municipal Code to restrict the use of other landscape equipment and heating, ventilation, and air conditioning (HVAC) equipment if problems arise in the future. [Policy 7d]

Measure 17: The Police Department and the Environmental Health Division will coordinate tracking of community noise complaints. [Policy 7d]

Measure 18: The City will consider adoption of financial penalties for repeated violations of Pasadena Noise Restrictions Ordinance (Title 9 Section 36 of the Municipal Code). [Policy 7d]

Measure 21: The City will encourage new developments to site outdoor commercial areas and gathering places, loading areas, parking lots, driveways, trash enclosures, mechanical equipment, and other noisier components away from residential zones and other sensitive uses as defined in the Guidelines for Noise Compatible Land Use, to the extent feasible, unless the siting of such components near to noise-sensitive uses provides transportation or other benefits. [Policies 7a, 7b, 7c]

Measure 23: The City will encourage commercial and/or industrial uses abutting residential zones to limit deliveries and trash pickups from 7:00 A.M. to 9:00 P.M. Monday through Saturday, unless there are substantial transportation or other benefits for different times. [Policy 6c]

Measure 26: The City will warn new residents and other sensitive noise receptors (refer to the Guidelines for Noise Compatible Land Use) about the potential for noise in the Central District and other mixed-use areas. [Policies 6a, 6b, 6c, 7a]

Compliance with existing City standards and implementation of Noise Element measures, including compliance with the City Noise Ordinance (Municipal Code Chapter 9.36) will reduce impact to a less than significant level. No mitigation is required.
Conclusion:

Compliance with existing City standards and regulations will reduce impact to a less than significant level and no mitigation is required.

2004 Mobility Element

The 2004 Mobility Element guides the continuing development of a multi-modal circulation system that supports planned growth; the Mobility Element does not contain any policies that will create noise from stationary sources. No impact will result.

Central District Specific Plan

As with the 2004 Land Use Element, new development resulting from long-term implementation of the 2004 Land Use Element may result in noise generated by non-residential projects. These types of uses are allowed throughout Pasadena and the Central District. Noise generation and potential impacts to surrounding development will continue to be considered as part of the City’s review of individual future projects. Compliance with existing City standards and regulations, including Noise Element policies as listed above and Noise Ordinance regulations will avoid significant stationary noise impact.

Conclusion:

Compliance with existing City standards and regulations will result in a less than significant impact from stationary noise sources; no mitigation is required.

Mitigation Measures

Individual development projects will continue to comply with existing City standards and practices regarding noise/land use compatibility review and the control of stationary noise sources. These standards and practices include:

- Preparation of an acoustical study for development projects in noise exposure areas defined as a “conditionally acceptable” zone in the General Plan Noise Element and incorporation of measures identified to reduce noise exposure
- Compliance with the California Noise Insulation Standards to ensure acceptable interior noise levels
- Enforcement of the Noise Ordinance

Because implementation of the 2004 land use policy will allow residential and other noise-sensitive uses within “conditionally acceptable” noise exposure zones, the following mitigation is required and will be applied to applicable development projects:

1. The City will require that all new residential development and other noise-sensitive uses proposed in areas experiencing noise levels considered “conditionally acceptable” to incorporate noise-mitigating features identified in acoustical studies prepared for such
development projects. Such features may include the following measures set forth in the Noise Element’s “Noise Evaluation and Mitigation” section:

a) If a 15-20 dB(A) reduction is needed, the following shall be included in development projects as directed by the Building Official:
   - Air conditioning or a mechanical ventilation system
   - Windows and sliding glass doors should be double-paned glass and mounted in low air infiltration rate frames (0.5 cfm or less, per American National Standard Institute [ANSI] specifications)
   - Solid core exterior doors with perimeter weather stripping and threshold seals

b) If a 20-25 dBA reduction is needed, the following shall be included in development projects as directed by the Building Official:
   - Same as 1(a) – (c) above
   - Exterior walls consist of stucco or brick veneer. Wood siding with a 1/2” minimum thickness fiberboard underlayer may also be used
   - Glass in both windows and doors should not exceed 20% of the floor area in a room
   - Roof or attic vents facing the noise source should be baffled

c) If a 25-30 dBA reduction is needed, the following shall be included in development projects as directed by the Building Official:
   - Same as 2(a) - (b) above
   - Attach interior sheetrock of exterior wall assemblies to studs by resilient channels; acceptable alternatives include staggered studs or double walls
   - Use window assemblies with laboratory-tested STC rating of 30 or greater (windows that provide superior noise reduction capability and that are laboratory-tested are sometimes called “sound-rated” windows. In general, these windows have thicker glass and/or increased air space between panes. In contrast, standard energy conservation double-pane glazing with a 1/8” or 1/4” air space may be less effective in reducing noise from some noise sources than single pane glazing.)

The requirements may also include orientation of buildings to shield outdoor living space from noise sources, provision of acoustical barriers, and other effective measures.

**Level of Impact after Mitigation**

The degree to which such mitigation will achieve noise/land use compatibility objectives cannot be measured. Thus, impact is significant and unavoidable on an individual project basis.