

The sound from an individual source decreases with increasing distance. The amount of sound reaching the receiver is affected by barriers between the source and receiver (such as walls, landscaping, and buildings) atmospheric conditions (such as wind, temperature, and humidity), and the number of sources emitting sound.

Automobiles are the primary source of surface noise in Villa Park. Noise associated with passenger vehicles is generated by the engine, tires and muffler system. Noise varies with road condition and speed. Generally, automobile noise is greater at high speeds than at low speeds.

Transportation noise in Villa Park is greatest along arterial highways. Existing CNEL noise contours are shown in Exhibit VII-1. The traffic noise levels were computed using the Highway Noise Model published by the Federal Highway Administration ("FHWA Highway Traffic Noise Prediction Model," FHWA-RD-77-108, December 1978). Noise referral zones are those areas within the contour that defines a CNEL level of 60 decibels. It is the level at which planning for future noise sensitive land uses should consider acoustical impacts. Noise sensitive land uses include residences of all types, rest homes, hospitals, places of worship and schools.

There are no railroads in Villa Park to generate noise impacts. There are no industrial noise sources in the City. Villa Park is impacted by an alternate approach to the John Wayne Airport, known as the Localizer Directional Aid (LDA). This causes some intermittent noise impacts. Future (year 2010) noise contours are shown in Exhibit VII-2. A greater number of residences will be affected by traffic noise as traffic volumes increase.

ISSUES AND OPPORTUNITIES

Issues

- Vehicular traffic is the primary noise generator in Villa Park.

Opportunities

- Routing regional traffic onto surrounding arterial roadways rather than through Villa Park will reduce noise levels on residential streets.