# Appendix D: Noise Study

# Downtown Core Project

# Noise Impact Study

City of Fontana, CA

Prepared for:

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MD ACOUSTICS
Sound Solutions for Planning and Design

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# *1.0 Introduction*

## 1.1 Purpose of Analysis and Study Objectives

This noise assessment was prepared to evaluate the potential noise impacts for the Project Area and to recommend noise mitigation measures, if necessary, to minimize the potential noise impacts. The assessment was conducted and compared to the noise standards set forth by the Federal, State, and Local agencies. Consistent with the City's Noise Guidelines, the Project must demonstrate compliance to the applicable noise criterion as outlined within the City's Noise Element and Municipal Code.

The following is provided in this report:

- A description of the Project Area and the proposed Project
- Information regarding the fundamentals of noise and vibration
- A description of the local noise and vibration guidelines and standards
- An analysis of traffic noise impacts to and from the project site
- An analysis of stationary noise impacts to and from the project site
- An analysis of construction noise impacts
- An analysis of ground-borne vibration impacts to and from the project site
- Suggested mitigation measures to reduce impacts

## 1.2 Site Location and Project Area

The proposed Project Area encompasses approximately 478 acres bounded by Foothill Boulevard on the north, Randall Avenue on the south, Juniper Avenue on the west, and Mango Avenue on the east, as shown in Exhibit A.

## 1.3 Proposed Project Description

The City is proposing to create a new focused area in the Downtown Core (Project Area) by creating and implementing a new General Plan land use category and six new Form Based Code districts specific to the Project Area. The Project would involve amending the General Plan, including establishing a new General Plan land use category, amending the General Plan Land Use Map to apply the new land use category, and amending the Zoning and Development Code, including the Zoning District Map, as described below. The proposed Project, would in part, provide increased residential development opportunities, consistent with the goals of the Senate Bill 2 Planning Grant received by the City.

the Project proposes to ultimately close a quarter-mile portion of Sierra Avenue to vehicular traffic. This would occur in two phases. Phase I (interim condition) would reduce the number of travel lanes on Sierra Avenue from two lanes in each direction to one lane in each direction, convert Wheeler Avenue to a one-way northbound street, and convert Nuevo Avenue to a one-way southbound street. Phase II (the ultimate condition) would close Sierra Avenue between Arrow Boulevard and Orange Way to vehicular traffic, diverting traffic to parallel streets.

## 1.4 Existing Land Uses

The Project Area contains a mix of existing on-site development, as shown in Table 1, *Summary of Existing On-Site Development*. As indicated in Table 1, the Project Area is currently developed with approximately 1.3 million square feet of non-residential uses and 2,020 dwelling units.

**Table 1: Summary of Existing On-Site Development**

| Land Use | Development | | |
|---|---|---|---|
| | Dwelling Units | Building Square Feet | Land Area (acres) |
| Single-Family Residential[1] | 896 | | |
| Multi-Family Residential[2] | 1,124 | | |
| Commercial[3] | | 642,458 | |
| Office | | 293,579 | |
| Industrial | | 46,894 | |
| Public Facilities[4] | | 324,533 | |
| Public Parks | | | 2.08 |
| Public Right of Way | | | 114.00 |
| Vacant (Land) | | | 12.07 |
| **Grand Total** | **2,020** | **1,307,464** | |

Source: CoStar Group, Esri, Google Earth, ParcelQuest, San Bernardino County Assessor

Notes:
1. Includes attached and detached single-family homes
2. Includes apartments, condos, and retirement homes
3. Includes retail properties as designated by CoStar Group
4. Includes civic centers and educational and government facilities

# Exhibit A
# **Plan Area**


**DOWNTOWN CORE PROJECT**

Figure 3-2.

Downtown Core Project Area

**Legend**

Project Area

0 500 1,000 Feet

*Sources: ArcGIS Online World Imagery map service; USGS National Map Roads. Map date: November 14, 2022.*

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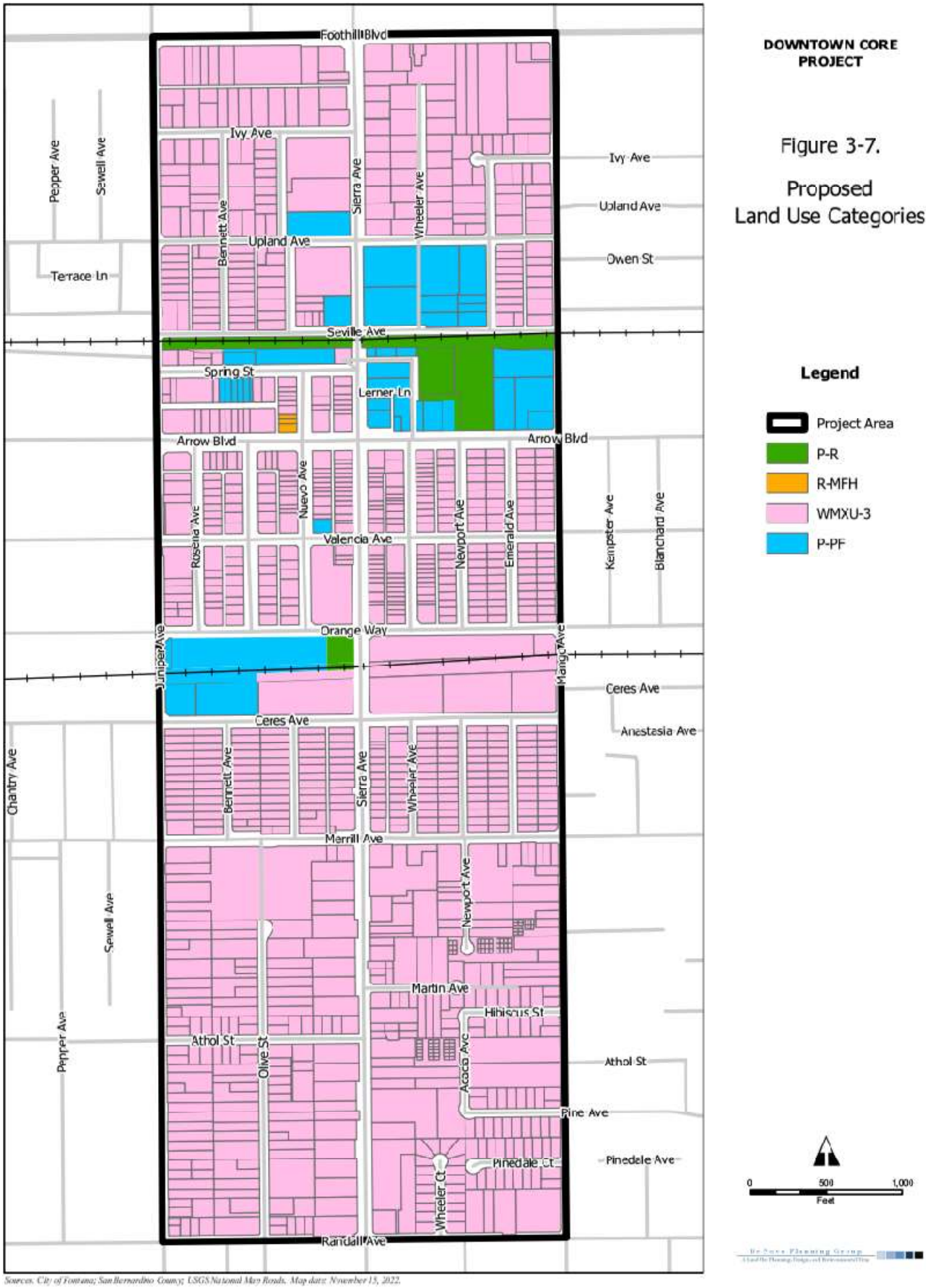
Exhibit B

# Existing General Plan Land Use Map


*Sources: City of Fontana; San Bernardino County; USGS National Map Roads. Map date: November 14, 2022*

# Exhibit C
# Proposed General Plan Land Use Map




*Sources: City of Fontana; San Bernardino County; USGS National Map Roads. Map date: November 15, 2022.*

# Exhibit D
# Existing Zoning Districts


**DOWNTOWN CORE PROJECT**

Figure 3-6.
FBC Zoning Districts

**Legend**

- Project Area
- Retail
- Civic
- Station Area
- Downtown Gateway
- Transitiona
- Mult-Family
- Neighborhood
- Sierra Gateway

0 500 1,000
Feet

*Sources: City of Fontana; San Bernardino County; USGS National Map Roads. Map date: November 14, 2022.*

# Exhibit E
# Proposed Zoning Districts


**DOWNTOWN CORE PROJECT**

Figure 3-8.

Proposed FBC Districts

**Legend**

- Project Area
- Civic
- Gateway Core
- Mixed-Use Core
- Multi-Family Core
- Neighborhood Core
- Sierra Core

0 500 1,000 Feet

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

*Sources: City of Fontana; San Bernardino County; USGS National Map Roads. Map date: November 15, 2022.*

# *2.0 Fundamentals of Noise*

This section of the report provides basic information about noise and presents some of the terms used within the report.

## 2.1 Sound, Noise, and Acoustics

Sound is a disturbance created by a moving or vibrating source and is capable of being detected by the hearing organs. Sound may be thought of as mechanical energy of a moving object transmitted by pressure waves through a medium to a human ear. For traffic or stationary noise, the medium of concern is air. *Noise* is defined as sound that is loud, unpleasant, unexpected, or unwanted.

## 2.2 Frequency and Hertz

A continuous sound is described by its *frequency* (pitch) and its *amplitude* (loudness). Frequency relates to the number of pressure oscillations per second. Low-frequency sounds are low in pitch (bass sounding) and high-frequency sounds are high in pitch (squeak). These oscillations per second (cycles) are commonly referred to as Hertz (Hz). The human ear can hear from the bass pitch starting at 20 Hz to the high pitch of 20,000 Hz.

## 2.3 Sound Pressure Levels and Decibels

The *amplitude* of a sound determines its loudness. The loudness of sound increases or decreases as the amplitude increases or decreases. Sound pressure amplitude is measured in units of micro-Newton per square meter ($\mu N/m^2$), also called micro-Pascal (µPa). One µPa is approximately one hundred billionths (0.00000000001) of normal atmospheric pressure. Sound pressure level (SPL or $L_p$) is used to describe in logarithmic units the ratio of actual sound pressures to a reference pressure squared. These units are called decibels abbreviated dB.

## 2.4 Addition of Decibels

Because decibels are on a logarithmic scale, sound pressure levels cannot be added or subtracted by simple plus or minus addition. When two sounds of equal SPL are combined, they will produce an SPL 3 dB greater than the single SPL. In other words, sound energy that is doubled produces a 3 dB increase. If two sounds differ by approximately 10 dB, the higher sound level is the predominant sound. When combining sound levels, estimates shown in Table 2 may be utilized.

**Table 2: Decibel Addition**

| When Two Decibel Values Differ by: | Add This Amount to Higher Value | Example |
|---|---|---|
| 0 or 1 dB | 3 dB | 70+69=73 dB |
| 2 or 3 dB | 2 dB | 74+71=76 dB |
| 4 to 9 dB | 1 dB | 66+60=67 dB |
| 10 dB or more | 0 dB | 65+55=65 dB |
| Source: Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol. Caltrans, 2013 | | |

## 2.5 Human Response to Changes in Noise Levels

In general, the healthy human ear is most sensitive to sounds between 1,000 Hz and 5,000 Hz, and it perceives a sound within that range as being more intense than a sound with a higher or lower frequency with the same magnitude. For purposes of this report as well as with most environmental documents, A-scale weighting is typically used and is reported in terms of the A-weighted decibel (dBA). The A-scale was designed to account for the frequency-dependent sensitivity of the human ear. Typical A-weighted noise levels are shown in Table 3.

**Table 3: Typical Noise Levels**

| Common Outdoor Activities | Noise Level (dBA) | Common Indoor |
|---|---|---|
| | 110 | Rock Band |
| Jet flyover at 1,000 feet | | |
| | 100 | |
| Gas lawnmower at 3 feet | | |
| | 90 | |
| Diesel truck at 50 feet at 50 mph | | Food blender at 3 feet |
| | 80 | Garbage disposal at 3 feet |
| Noisy urban area, daytime | | |
| Gas lawnmower, 100 feet | 70 | Vacuum cleaner at 10 feet |
| Commercial area | | Normal speech at 3 feet |
| Heavy traffic at 300 feet | 60 | |
| | | Large Business Office |
| Quiet urban daytime | 50 | Dishwasher in next room |
| | | |
| Quiet urban nighttime | 40 | Theater, large conference room (background) |
| Quiet suburban nighttime | | |
| | 30 | Library |
| Quiet rural nighttime | | Bedroom at night, concert hall (background) |
| | 20 | |
| | | Broadcasting/recording studio |
| | 10 | |
| | | |
| Lowest Threshold of Human Hearing | 0 | Lowest Threshold of Human Hearing |

Source: Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol. Caltrans, 2013.

In general, the human ear can barely perceive a change in the noise level of 3 dB. As shown in Table 4, a change in 5 dB is readily perceptible, and a change in 10 dB is perceived as being twice or half as loud. As previously discussed, a doubling of sound energy results in a 3 dB increase in sound, which means that a doubling of sound energy (e.g., doubling the volume of traffic on a highway) would result in a barely perceptible change in sound level.

**Table 4: Perceived Changes in Noise Levels**

| Changes in Intensity Level, dBA | Changes in Apparent Loudness |
|---|---|
| 1 | Not perceptible |
| 3 | Just perceptible |
| 5 | Clearly noticeable |
| 10 | Twice (or half) as loud |
| Source: Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol. Caltrans, 2013. | |

## 2.6 Noise Descriptors

Noise in our daily environment fluctuates over time. Some noise levels occur in regular patterns, and others are random. Some noise levels are constant, while others are sporadic. Noise descriptors were created to describe the different time-varying noise levels.

***A-Weighted Sound Level:*** The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high-frequency components of the sound in a manner similar to the response of the human ear. A numerical method of rating human judgment of loudness.

***Ambient Noise Level:*** The composite of noise from all sources, near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

***Community Noise Equivalent Level (CNEL):*** The average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of five (5) decibels to sound levels in the evening from 7:00 to 10:00 PM and after the addition of ten (10) decibels to sound levels in the night between 10:00 PM and 7:00 AM.

***Decibel (dB):*** A unit for measuring the amplitude of a sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micro-pascals.

***dBA:*** A-weighted sound level (see definition above).

***Equivalent Sound Level (LEQ):*** The sound level corresponding to a steady noise level over a given sample period with the same amount of acoustic energy as the actual time-varying noise level. The energy average noise level during the sample period.

***Habitable Room:*** Any room meeting the requirements of the California Building Code or other applicable regulations which is intended to be used for sleeping, living, cooking, or dining purposes, excluding such enclosed spaces as closets, pantries, bath or toilet rooms, service rooms, connecting corridors, laundries, unfinished attics, foyers, storage spaces, cellars, utility rooms, and similar spaces.

***L(n):*** The A-weighted sound level exceeded during a certain percentage of the sample time. For example, L10 in the sound level exceeded 10 percent of the sample time. Similarly, L50, L90, L99, etc.

***Noise:*** *A*ny unwanted sound or sound which is undesirable because it interferes with speech and hearing, is intense enough to damage hearing, or is otherwise annoying. The State Noise Control Act defines noise as "...excessive undesirable sound...".

***Outdoor Living Area:*** Outdoor spaces that are associated with residential land uses typically used for passive recreational activities or other noise-sensitive uses. Such spaces include patio areas, barbecue areas, jacuzzi areas, etc. associated with residential uses; outdoor patient recovery or resting areas associated with hospitals, convalescent hospitals, or rest homes; outdoor areas associated with places of worship which have a significant role in services or other noise-sensitive activities; and outdoor school facilities routinely used for educational purposes which may be adversely impacted by noise. Outdoor areas usually not included in this definition are: front yard areas, driveways, greenbelts, maintenance areas and storage areas associated with residential land uses; exterior areas at hospitals that are not used for patient activities; outdoor areas associated with places of worship and principally used for short-term social gatherings; and, outdoor areas associated with school facilities that are not typically associated with educational uses prone to adverse noise impacts (for example, school play yard areas).

***Percent Noise Levels:*** See L(n).

***Sound Level (Noise Level):*** The weighted sound pressure level obtained by use of a sound level meter having a standard frequency filter for attenuating part of the sound spectrum.

***Sound Level Meter:*** An instrument, including a microphone, an amplifier, an output meter, and frequency weighting networks for the measurement and determination of noise and sound levels.

***Single Event Noise Exposure Level (SENEL):*** The dBA level which, if it lasted for one second, would produce the same A-weighted sound energy as the actual event.

## 2.7 Tonal Sounds

A pure tone sound is a sound produced at or near a single frequency. Laboratory tests have shown that humans are more perceptible to changes in sound levels of a pure tone. For a noise source to contain a "pure tone," there must be a significantly higher A-weighted sound energy in a given frequency band than in the neighboring bands, thereby causing the noise source to "stand out" against other noise sources. A pure tone occurs if the sound pressure level in the one-third octave band with the tone exceeds the average of the sound pressure levels of the two contagious one-third octave bands by 5 dB for center frequencies of 500 Hertz (Hz) and above; by 8 dB for center frequencies between 160 and 400 Hz; and by 15 dB for center frequencies of 125 Hz or less.

## 2.8 Sound Propagation

As sound propagates from a source it spreads geometrically. Sound from a small, localized source (i.e., a point source) radiates uniformly outward as it travels away from the source in a spherical pattern. The

sound level attenuates at a rate of 6 dB per doubling of distance. The movement of vehicles down a roadway makes the source of the sound appear to propagate from a line (i.e., line source) rather than a point source. This line source results in the noise propagating from a roadway in a cylindrical spreading versus a spherical spreading that results from a point source. The sound level attenuates for a line source at a rate of 3 dB per doubling of distance.

Research has demonstrated that atmospheric conditions can have a significant effect on noise levels when noise receivers are located 200 feet or more from a noise source. Wind, temperature, air humidity, and turbulence can further impact have far sound can travel.

## 2.9 Ground Absorption

As noise propagates from the source, it is affected by the ground and atmosphere. Noise models use hard site (reflective surfaces) and soft site (absorptive surfaces) to help calculate predicted noise levels. Hard site conditions assume no excessive ground absorption between the noise source and the receiver. Soft site conditions such as grass, soft dirt, or landscaping attenuate noise at a rate of 1.5 dB per doubling of distance. When added to the geometric spreading, the excess ground attenuation results in an overall noise attenuation of 4.5 dB per doubling of distance for a line source and 7.5 dB per doubling of distance for a point source.

## 2.10 Sound Attenuation

Noise-related land use issues are typically composed of three basic elements: (1) the noise source, (2) a transmission path, and (3) a receiver.

The appropriate acoustical treatment for a given project should consider the nature of the noise source and the sensitivity of the receiver. When the potential for a noise-related problem is present, either avoidance of the noise-related problem or noise control techniques should be selected to provide an acceptable noise environment for the receiver while remaining consistent with local aesthetic standards and practical structural and economic limits. Fundamental noise control options are described below.

### 2.10.1 Noise Barriers

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. To achieve that reduction, the barrier must be high enough and long enough to block the line-of-sight of the vehicles on the road. A noise barrier can still achieve a 5 dBA noise level reduction when it is tall enough to barely allow a line-of-sight of the vehicles. A noise barrier is most effective when placed close to the noise source or receiver. When the noise barrier is an earthen berm instead of a wall, the noise attenuation can be increased by another 3 dBA.

### 2.10.2 Setbacks

Noise exposure may be reduced by increasing the setback distance between the noise source and the receiving use. Setback areas can take the form of open space, frontage roads, recreational areas, and storage yards. The available noise attenuation from this technique is limited by the characteristics of the noise source but generally ranges between 4 and 6 dBA.

### 2.10.3 Site Design

Buildings can be placed on a property to shield other structures or areas affected by noise and to prevent an increase in noise levels caused by reflections. The use of one building to shield another can significantly reduce overall noise control costs, particularly if the shielding structure is insensitive to noise. An example would be placing a detached garage nearest the noise source to shield the house or backyard. Site design should guard against creating reflecting surfaces that may increase onsite noise levels. For example, two buildings placed at an angle facing a noise source may cause noise levels within that angle to increase by up to 3 dBA. The open end of U-shaped buildings should point away from noise sources for the same reason. Landscaping walls or noise barriers located within a development may inadvertently reflect noise to a noise-sensitive area unless carefully located.

### 2.10.4 Building Facades

When interior noise levels are of concern in a noisy environment, noise reduction may be obtained through the acoustical design of building facades. Standard construction practices provide a noise reduction of 10–15 dBA for building facades with open windows and a noise reduction of approximately 25 dBA when windows are closed (Table 5). An exterior-to-interior noise reduction of 25 dBA can be obtained by requiring that building design include adequate ventilation systems, which would allow windows facing a noise source to remain closed, even during periods of excessively warm weather.

Where greater noise reduction is required, acoustical treatment of the building facade may be necessary. Reducing relative window area is the most effective control technique, followed by providing acoustical glazing (e.g., thicker glass or increased air space between panes) within frames with low air infiltration rates, using fixed (i.e., non-movable) acoustical glazing, or eliminating windows. Noise transmitted through walls can be reduced by increasing wall mass (e.g., using stucco or brick in lieu of wood siding), or isolating wall members by using double or staggered stud walls, while noise transmitted through doorways can be lessened by reducing door area, using solid-core doors, or sealing door perimeters with suitable gaskets. Noise-reducing roof treatments include using plywood sheathing under roofing materials.

**Table 5: Noise Reduction Afforded by Common Building Construction**

| Construction Type | Typical Occupancy | General Description | Range of Noise Reduction (dB)[1] |
|---|---|---|---|
| 1 | Residential, Commercial, Schools | Wood frame, stucco, or wood sheathing exterior. Interior drywall or plaster. Sliding glass windows, with windows partially open. | 15-20 |
| 2 | Same as 1 above | Same as 1 above, but with windows closed. | 25-30 |
| 3 | Commercial, Schools | Same as 1 above, but with fixed 0.25-inch plate glass windows. | 30-35 |
| 4 | Commercial, Industrial | Steel or concrete frame, curtain wall, or masonry exterior wall. Fixed 0.25-inch plate glass windows. | 35-40 |

Source: California Airport Land Use Planning Handbook, 2002.

### 2.10.5 Landscaping

While the use of trees and other vegetation is often thought to provide significant noise attenuation, approximately 100 feet of dense foliage – with no visual path extending through the foliage – is required to achieve a 5 dBA attenuation of traffic noise. Thus, the use of vegetation as a noise barrier is not considered a practical method of noise control unless large tracts of dense foliage are part of the existing landscape.

Vegetation can be used, however, to acoustically "soften" intervening ground between a noise source and a receiver, increasing ground absorption of sound, and thus, increasing the attenuation of sound with distance. Planting trees and shrubs also offers aesthetic and psychological value, and it may reduce adverse public reaction to a noise source by removing the source from view, even though noise levels would be largely unaffected.

# *3.0 Ground-Borne Vibration Fundamentals*

## 3.1 Vibration Descriptors

Ground-borne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of ground-borne vibrations typically only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Although ground-borne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Ground-borne noise is an effect of ground-borne vibration and mainly exists indoors since it is produced from noise radiated from the motion of the walls and floors of a room and may also consist of the rattling of windows or dishes on shelves. Several different methods are used to quantify vibration amplitude. Typical human reaction and effect on buildings due to ground-borne vibration is shown in Table 6. Exhibit F illustrates common vibration sources and the human and structural responses to ground-borne vibration

***PPV –*** Known as the peak particle velocity (PPV) which is the maximum instantaneous peak in vibration velocity, typically given in inches per second.

***RMS –*** Known as root mean squared (RMS) can be used to denote vibration amplitude

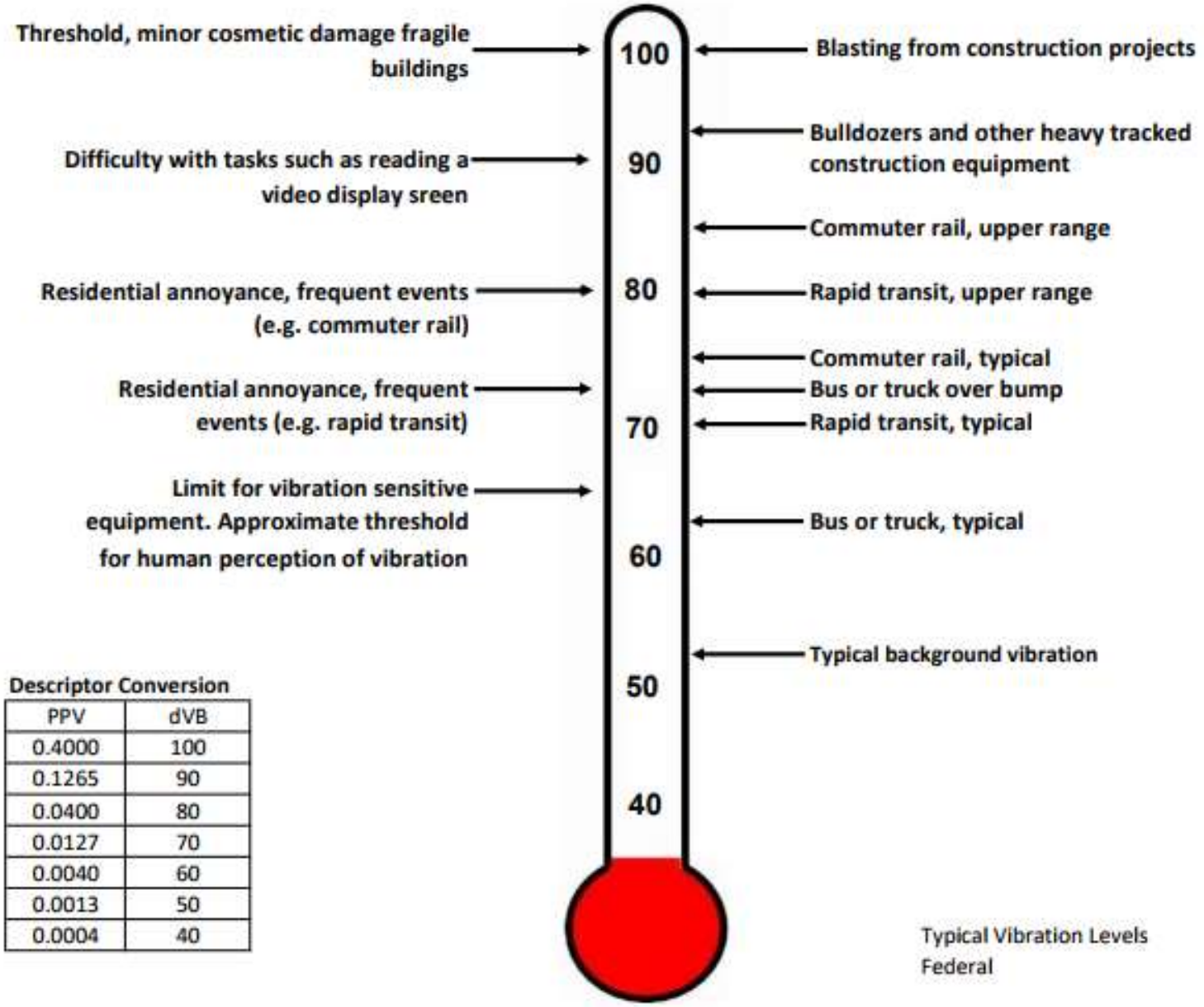
***VdB –*** A commonly used abbreviation to describe the vibration level (VdB) for a vibration source.

**Table 6: Typical Human Reaction and Effect on Buildings Due to Ground-Borne Vibration**

| Vibration Level<br>Peak Particle Velocity (PPV) | Human Reaction | Effect on Buildings |
|---|---|---|
| 0.006–0.019 in/sec | Threshold of perception, possibility of intrusion | Vibrations unlikely to cause damage of any type |
| 0.08 in/sec | Vibrations readily perceptible | Recommended upper level of vibration to which ruins and ancient monuments should be subjected |
| 0.10 in/sec | Level at which continuous vibration begins to annoy people | Virtually no risk of "architectural" (i.e., not structural) damage to normal buildings |
| 0.20 in/sec | Vibrations annoying to people in buildings | Threshold at which there is a risk to "architectural" damage to normal dwelling – houses with plastered walls and ceilings |
| 0.4–0.6 in/sec | Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges | Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage |
| Source: Caltrans Transportation and Construction Vibration Guidance Manual, 2020. | | |

Exhibit F

## Typical Ground-Borne Vibration Levels




Typical Vibration Levels
Federal

**Descriptor Conversion**

| PPV | dVB |
|---|---|
| 0.4000 | 100 |
| 0.1265 | 90 |
| 0.0400 | 80 |
| 0.0127 | 70 |
| 0.0040 | 60 |
| 0.0013 | 50 |
| 0.0004 | 40 |

## 3.2 Vibration Perception

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans whose threshold of perception is around 65 VdB. Outdoor sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible ground-borne noise or vibration.

The California Department of Transportation has published one of the seminal works for the analysis of ground-borne noise and vibration relating to transportation- and construction-induced vibrations and although the Project is not subject to these regulations, it serves as useful tools to evaluate vibration impacts. (California Department of Transportation, 2020).

## 3.3 Vibration Propagation

There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse, or side-to-side and perpendicular to the direction of propagation. As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. This drop-off rate can vary greatly depending on the soil but has been shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests.

# *4.0 Regulatory Setting*

The proposed Project is located in the City of San Jacinto, and noise regulations are addressed through the efforts of various federal, state, and local government agencies. The agencies responsible for regulating noise are discussed below.

## 4.1 Federal Regulations

### 4.1.1 Noise Control Act of 1972

The Federal Office of Noise Abatement and Control (ONAC) originally was tasked with implementing the Noise Control Act. However, it was eventually eliminated leaving other federal agencies and committees to develop noise policies and programs. Some examples of these agencies are as follows:

- The Department of Transportation (DOT) assumed a significant role in noise control through its various agencies.
- The Federal Aviation Agency (FAA) regulates noise from aircraft and airports.
- The Federal Highway Administration (FHWA) regulates noise from the interstate highway system.
- The Occupational Safety and Health Administration (OSHA) is responsible for the prohibition of excessive noise exposure to workers.

The federal government advocates that local jurisdiction use their land use regulatory authority to arrange new development in such a way that "noise sensitive" uses are either prohibited from being constructed adjacent to a highway or that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Since the federal government has preempted the setting of standards for noise levels that can be emitted by the transportation source, the City is restricted to regulating the noise generated by the transportation system through nuisance abatement Codes and land use planning.

The intent of a General Plan Noise Element is to set goals to limit and reduce the effects of noise intrusion and to set acceptable noise levels for varying types of land uses. To this end, the City has the authority to set land use noise standards and restrict private activities that generate excessive or intrusive noise. However, it should be recognized that the City does not have the authority to regulate all sources of noise within the City and various other agencies may supersede City authority. The following is a summary of some federal agency requirements that apply to noise within the Project Area.

### 4.1.2 Federal Highway Administration

Federal Highway Administration State routes and freeways that run through the City are subject to Federal funding and, as such, are under the purview of the Federal Highway Administration (FHWA). The FHWA has developed noise standards that are typically used for Federally funded roadway projects or projects that require either Federal or Caltrans review. These noise standards are based on Leq and L10 values and are included in Table 7, FHWA Design Noise Levels.

**Table 7: FHWA Design Noise Levels**

| Activity Category | Description of Category | Design Noise Levels[1] | |
|---|---|---|---|
| | | Leq (dBA) | L10 (dBA) |
| A | Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. Examples include natural parks or wildlife habitats. | 57 (exterior) | 60 (exterior) |
| B | Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals. | 67 (exterior) | 70 (exterior) |
| C | Developed lands, properties, or activities not included in Categories A or B, above. | 72 (exterior) | 75 (exterior) |
| D | Undeveloped lands. | | |
| E | Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums. | 52 (interior) | 55 (interior) |

Source: FHWA Noise Standard. 23 Code of Federal Regulations 772.
Notes: Either Leq or L10 (but not both) design noise levels may be used on a project.

*U.S. Department of Housing and Urban Development*
The Department of Housing and Urban Development (HUD) issues formal requirements related specifically to standards for exterior noise levels along with policies for approving HUD-supported or assisted housing projects in high noise areas. In general, these requirements established three zones. These include:

- 65 dBA Ldn or less - an acceptable zone where all projects could be approved,

- Exceeding 65 dBA Ldn but not exceeding 75 dBA Ldn - a normally unacceptable zone where mitigation measures would be required, and each Project would have to be individually evaluated for approval or denial. These measures must provide 5 dBA of attenuation above the attenuation provided by standard construction required in a 65 to 70 dBA Ldn area and 10 dBA of attenuation in a 70 to 75 dBA Ldn area, and

- Exceeding 75 dBA Ldn - an unacceptable zone in which projects would not, as a rule, be approved.

### 4.1.3 The Federal Interagency Committee on Noise

The Federal Interagency Committee on Noise (FICON) developed guidance for the assessment of project-generated increases in noise levels that consider the ambient noise level. The FICON recommendations are based on studies of the percentage of persons highly annoyed by aircraft noise. These recommendations are often used for different types of environmental noise such as traffic noise. A readily perceptible 5 dBA or greater project-related noise level increase is considered a significant impact

when the noise criteria for a given land use is exceeded. In areas where the existing noise levels range from 60 to 65 dBA Ldn, a 3 dBA barely perceptible noise level increase is considered significant. When the existing noise levels already exceed 65 dBA Ldn, any increase in community noise louder than 1.5 dBA or greater is considered a significant impact since it likely contributes to an existing noise exposure exceedance.

## 4.2 State Regulations

### 4.2.1 California Department of Health Services

The California Department of Health Services (DHS) Office of Noise Control studied the correlation between noise levels and their effects on various land uses. As a result, the DHS established four categories for judging the severity of noise intrusion on specified land uses. These categories are presented in the State Land Use Compatibility for Community Noise Exposure table (California Office of Noise Control, 2017). The Fontana General Plan has not adopted these standards and instead uses a threshold of 65 dBA CNEL and 65 dBA $Leq_{12}$ for sensitive uses.

### 4.2.2 The California Building Code

Section 1206.4 of the 2022 California Building Code (Cal. Code Regs., Title 24, Part 2), Chapter 12 (Interior Environment), establishes an interior noise criterion of 45 dBA CNEL in any habitable room. Per California Building Code, Chapter 2 (Definitions), a habitable space is A space in a building for living, sleeping, eating or cooking. Bathrooms, toilet rooms, closets, halls, storage or utility spaces and similar areas are not considered habitable spaces.This section applies to dwelling and sleeping units.

### 4.2.3 California Green Building Standards Code

California Green Building Standards Code (2022), Chapter 5 (Nonresidential Mandatory Measures) Section 5.507.4 (Acoustical Control), applies to all proposed buildings that people may occupy but are not residential dwelling units, with the exception of factories, stadiums, storage, enclosed parking structures, and utility buildings.

Buildings must comply with Section 5.507.4.1 or Section 5.507.4.2. Section 5.507.4.1 requires wall and roof-ceiling assemblies exposed to the noise source making up the building, or addition envelope or altered envelope, shall meet a composite Sound Transmission Class (STC) rating of at least 50 or a composite Outdoor to Indoor Transmission Class (OITC) rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 when within the 65 CNEL noise contour of an airport, freeway, expressway, railroad, industrial source, or fixed-guideway source. If contours are not available, buildings exposed to 65 dB Leq(h) must meet a composite STC rating of at least 45 or OITC of 35 with exterior windows of at least STC 40 or OITC 30. Section 5.507.4.2 requires that the interior noise attributable to exterior sources must not exceed 50 dBA Leq(h) during any hour of operation. Section 5.507.4.3 requires that assemblies separating tenant spaces from tenant spaces or public places must have an STC of at least 40.

## 4.3 City of Fontana

Existing planning policies and noise regulations applicable to noise within the City of Fontana are presented in the Noise and Safety Element of the City of Fontana General Plan "Fontana Forward" and within the City of Fontana Municipal Code. Applicable goals, policies, and regulations are presented below.

### 4.3.1 City of Fontana 2015-2035 General Plan

The primary noise sources in the Project Area are transportation noise and stationary noise sources. Transportation noise refers to noise from automobile use, trucking, and nearby airport operations. Typical stationary noise sources include but are not limited to HVAC Systems, Pump Stations, Cooling Towers/Evaporative Condensers, Lift Stations, Emergency Generators, Boilers, Steam Valves, Steam Turbines, Generator, Fans, Air Compressors, Heavy Equipment, Conveyor Systems, Transformers, Pile Drivers, Grinders, Drill Rigs, Gas or Diesel Motors, Welders, Cutting Equipment, Outdoor Speakers, Blowers and Pneumatic Equipment.

*General Plan Goals, Policies and Actions*
The 2015-2035 General Plan Noise and Safety Element includes the following goals, policies and actions that are intended to avoid or reduce noise impacts related to transportation, stationary, and construction related noise sources.

***Goal 8:*** The City of Fontana protects sensitive land uses from excessive noise by diligent planning through 2035.

*Policies*

- New sensitive land uses shall be prohibited in incompatible areas.
- Noise-tolerant land uses shall be guided into areas irrevocably committed to land uses that are noise-producing, such as transportation corridors.
- Where sensitive uses are to be placed along transportation routes, mitigation shall be provided to ensure compliance with state- mandated noise levels.
- Noise spillover or encroachment from commercial, industrial and educational land uses shall be minimized into adjoining residential neighborhoods or noise-sensitive uses.

*Actions*

A. The following uses shall be considered noise-sensitive and discouraged in areas in excess of 65 dBA CNEL (Community Noise Equivalent Level): Residential Uses; Hospitals; Rest Homes; Long Term Care Facilities; and Mental Care Facilities.

B. The following uses shall be considered noise-sensitive and discouraged in areas in excess of 65 Leq(12) (Equivalent Continuous Sound Level): Schools; Libraries; Places of Worship; and Passive Recreation Uses.

C. The State of California Office of Planning and Research General Plan Guidelines shall be followed with respect to acoustical study requirements.

***Goal 9***: The City of Fontana provides a diverse and efficiently operated ground transportation system that generates the minimum feasible noise on its residents through 2035.

*Policies*

• All noise sections of the State Motor Vehicle Code shall be enforced.

• Roads shall be maintained such that the paving is in good condition and free of cracks, bumps, and potholes.

• Noise mitigation measures shall be included in the design of new roadway projects in the city.

*Actions*

A. On-road trucking activities shall continue to be regulated in the City to ensure noise impacts are minimized, including, including the implementation of truck-routes based on traffic studies.

B. Development that generates increased traffic and subsequent increases in the ambient noise level adjacent to noise-sensitive land uses shall provide appropriate mitigation measures.

C. Noise mitigation practices shall be employed when designing all future streets and highways, and when improvements occur along existing highway segments.

D. Explore the use of "quiet pavement" materials for street improvements.

***Goal 10***: Fontana's residents are protected from the negative effects of "spillover" noise.

*Policy*

• Residential land uses and areas identified as noise-sensitive shall be protected from excessive noise from non-transportation sources including industrial, commercial, and residential activities and equipment.

*Actions*

A. Projects located in commercial areas shall not exceed stationary- source noise standards at the property line of proximate residential or commercial uses.

B. Industrial uses shall not exceed commercial or residential stationary source noise standards at the most proximate land uses.

C. Non-transportation noise shall be considered in land use planning decisions.

D. Construction shall be performed as quietly as feasible when performed in proximity to residential or other noise sensitive land uses.

The Fontana General Plan Environmental Report includes two noise-related mitigation measures.

MM-NOI-1 Prior to issuance of a grading permit, a developer shall contract for a site-specific noise study for the parcel. The noise study shall be performed by an acoustic consultant experienced in such studies and the consultant's qualifications and methodology to be used in the study must be presented to City staff for consideration. The site-specific acoustic study shall specifically identify potential noise impacts upon any proposed sensitive uses (addressing General Plan buildout conditions), as well as potential project impacts upon off-site sensitive uses due to construction, stationary and mobile noise sources. Mitigation for mobile noise impacts, where identified as significant, shall consider facility siting and truck routes such that project-related truck traffic utilizes existing established truck routes. Mitigation shall be required if noise levels exceed 65 dBA, as identified in Section 30-182 of the City's Municipal Code.

MM-NOI-2 To reduce impacts related to heavy construction equipment moving and operating on site during project construction, grading, demolition, and paving prior to issuance of grading permits, the applicant shall ensure that the following procedures are followed:

- Construction equipment, fixed or mobile, shall be properly outfitted and maintained with feasible noise-reduction devices to minimize construction generated noise.
- Laydown and construction vehicle staging areas shall be located away from noise sensitive land uses if feasible.
- Stationary noise sources such as generators shall be located away from noise sensitive land uses, if feasible.
- Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow surrounding property owners to contact the job superintendent 24 hours a day to report noise and other nuisance-related issues, if necessary. The point of contact shall be available 24 hours a day, 7 days a week and have authority to commit additional assets to control dust after hours, on weekends, and on holidays. In the event that the City of Fontana receives a pattern of noise complaints, appropriate corrective actions shall be implemented, such as on site noise monitoring during construction activities, and a report of the action shall be provided to the reporting party.

### 4.3.3 City of Fontana Municipal Code

The Noise Ordinance of the Municipal Code is designed to protect people from non-transportation noise sources such as construction activity; commercial, industrial, and agricultural operations; machinery and pumps; and air conditioners. Enforcement of the ordinance ensures that adjacent properties are not exposed to excessive noise from stationary sources. Enforcing the ordinance includes requiring proposed development projects to show compliance with the ordinance, including operating in accordance with noise levels and hours of operations limits placed on the project site. The City also requires construction activity to comply with established work schedule limits. The ordinance is reviewed periodically for adequacy and amended as needed to address community needs and development patterns.

The City of Fontana's Noise Ordinance consists of Sections 18-61 to 18-67 of the Fontana Municipal Code. These sections include noise-related definitions, discusses consequences for violation of the code, lists specifically prohibited noises, and outlines the allowed procedure for the use of sound trucks and sound amplifying aircraft.

Section 18-63 states that any noise that disturbs persons of ordinary sensibilities is unlawful. It also outlines the penalties for violating the Noise Ordinance.

Section 18-36 lists specific prohibited noises as they disturb a person of ordinary sensibilities. These sources including horns and signaling devices, sound amplifying equipment, animals, exhausts, vehicle and load defects, loading and unloading activities, construction during the hours of 6PM to 7AM on weekdays and 5PM to 8AM on Saturday, noise near schools, courts, places of worship, and hospitals, transportation of metal pillars, specific construction equipment between 6PM and 7AM, and blowers between the hours of 6PM and 7AM on weekdays and 5PM to 8AM on Saturdays.

Section 30-469 outlines residential noise standards for interior and exterior uses. Within a residential zone, no use shall create a noise greater than 65 dB at an exterior use and 45 dB at an interior use. The code does not specify the weighting scale or specific location of the measurement, but generally environmental noise standards are in dBA and taken at the property line of a useable area.

Section 30-470 states that any vibration occurring on a residential property which can be felt beyond the property line is prohibited.

Section 30-542 is similar to Sections 30-469 and 30-470 for noises occurring on industrial properties. Daytime residential levels, however, are limited to 70 dBA at any residential property line and 65 dBA at night at any residential property line. This section also prohibits vibration which can be felt beyond the property line.

Section 30-943(a)(6) outlines noise restrictions for extraction permits including daytime limits of 55 dBA at residential properties, 60 dBA at commercial properties at any time, and 70 dBA at industrial properties at any time. These limits are reiterated in Section 9-62(c)(3)(d)(3).

# *5.0 Study Method and Procedure*

The following section describes the noise modeling procedures and assumptions used for this assessment.

## 5.1 Noise Measurement Procedure and Criteria

Noise measurements are taken to determine the existing noise levels. A noise receiver or receptor is any location in the noise analysis in which noise might produce an impact. The following criteria are used to select measurement locations and receptors:

- Locations expected to receive the highest noise impacts, such as the first row of houses
- Locations that are acoustically representative and equivalent of the area of concern
- Human land usage
- Sites clear of major obstruction and contamination

MD conducted the sound level measurements in accordance with the City and Caltrans technical noise specifications. All measurements equipment meets American National Standards Institute (ANSI) specifications for sound level meters (S1.4-1983 identified in Chapter 19.68.020.AA). The following gives a brief description of the Caltrans Technical Noise Supplement procedures for sound level measurements:

- Microphones for sound level meters were placed 5-feet above the ground for all measurements
- Sound level meters were calibrated before and after each measurement
- Following the calibration of equipment, a windscreen was placed over the microphone
- Frequency weighting was set on "A" and slow response
- Results of the long-term noise measurements were recorded on field data sheets
- During any short-term noise measurements, any noise contaminations such as barking dogs, local traffic, lawnmowers, or aircraft flyovers were noted
- Temperature and sky conditions were observed and documented

## 5.2 SoundPLAN Noise Modeling

SoundPLAN acoustical modeling software was utilized to create existing, 2040 without Project, 2040 with Project, and 2040 Alternate 1 traffic noise level contours for the 19 segments analyzed in the Project's traffic impact analysis and 13 additional segments calculated from the Project's intersection volumes provided by Kittleson & Associate, Inc. Model parameters included average daily traffic volumes, day/evening/night split, roadway classification, width, speed, and truck mix. All modeled roadways were assumed to have a "hard site", as the majority of analysis occurs at 50 feet from the centerline of the road. Possible reductions in noise levels due to intervening topography and buildings were not accounted for in this analysis. Roadway modeling assumptions utilized for the technical study are provided in Table 8 and Table 9, and in Appendix C.

A summary of the model parameters and REMEL adjustments are presented below.

- Roadway classification – (e.g., freeway, major arterial, arterial, secondary, collector, etc.),
- Roadway Active Width – (distance between the center of the outermost travel lanes on each side of the roadway)
- Average Daily Traffic Volumes (ADT), Travel Speeds, Percentages of automobiles, medium trucks, and heavy trucks
- Roadway grade and angle of view
- Site Conditions (e.g., soft vs. hard)
- Percentage of total ADT which flows each hour throughout a 24-hour period

## 5.3 FHWA Traffic Noise Prediction Model

The FHWA Traffic Noise Prediction Model (FHWA-RD-77-108) was utilized to model and to compare existing traffic noise levels to 2040 Future noise levels. The FHWA model arrives at the predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). Roadway modeling assumptions utilized for the technical study are provided in Table 8 and Table 9.

**Table 8: Roadway Noise Modeling Parameters**

| Roadway | Segment Limits | Existing ADT[1] | 2040 No Project ADT[1] | 2040 With Project ADT[1] | 2040 Alternative 1 ADT[1] | Speed[3] |
|---|---|---|---|---|---|---|
| Arrow Blvd. | Juniper to Rosena | 13,667 | 16,483 | 16,370 | 15,860 | 35 |
| Arrow Blvd. | Rosena to Nuevo | 10,800 | 15,200 | 15,000 | 15,000 | 35 |
| Arrow Blvd. | Nuevo to Sierra | 14,076 | 19,817 | 26,021 | 22,071 | 35 |
| Arrow Blvd. | Sierra to Wheeler | 13,665 | 17,663 | 28,592 | 23,781 | 35 |
| Arrow Blvd. | Wheeler to Emerald | 10,800 | 13,800 | 12,800 | 12,800 | 35 |
| Arrow Blvd. | Emerald to Mango | 10,800 | 15,400 | 16,300 | 16,300 | 35 |
| Ceres Ave. | Nuevo to Sierra | 1,894 | 2,650 | 2,989 | 2,519 | 25 |
| Foothill Blvd. | Juniper to Sierra | 21,370 | 27,602 | 27,137 | 27,636 | 45 |
| Foothill Blvd. | Sierra to Mango | 17,600 | 23,500 | 23,700 | 23,700 | 45 |
| Juniper Ave. | Foothill to Upland | 11,200 | 13,800 | 14,900 | 14,900 | 35 |
| Juniper Ave. | Upland to Arrow | 10,000 | 18,100 | 19,900 | 19,900 | 35 |
| Juniper Ave. | Arrow to Valencia | 13,323 | 16,097 | 17,554 | 14,995 | 35 |
| Mango Ave. | Foothill to Upland | 8,000 | 10,400 | 11,300 | 11,300 | 35 |
| Mango Ave. | Upland to Valencia | 10,905 | 12,655 | 15,728 | 13,191 | 35 |
| Mango Ave. | Valencia to Merrill | 9,300 | 13,500 | 19,400 | 19,400 | 35 |
| Merrill Ave. | Juniper to Mango | 12,843 | 15,380 | 16,815 | 16,061 | 40 |
| Nuevo Ave. | Arrow to Valencia | 928 | 1392 | 17153 | 11076 | 25 |
| Nuevo Ave. | Valencia to Orange | 500 | 700 | 10600 | 10600 | 35 |
| Orange Way | Nuevo to Sierra | 2,332 | 8,445 | 21,478 | 15,482 | 35 |
| Orange Way | Sierra to Wheeler | 1,376 | 1,415 | 16,973 | 13,137 | 35 |
| Randall Ave. | Juniper to Mango | 7,643 | 8,954 | 8,978 | 8,381 | 40 |

| Roadway | Segment Limits | Existing ADT[1] | 2040 No Project ADT[1] | 2040 With Project ADT[1] | 2040 Alternative 1 ADT[1] | Speed[3] |
|---|---|---|---|---|---|---|
| Sierra Ave. | Foothill to Upland | 21,180 | 33,274 | 31,931 | 25,880 | 30 |
| Sierra Ave. | Upland to Arrow | 15,600 | 22,200 | 20,000 | 20,000 | 30 |
| Sierra Ave. | Arrow to Valencia | 22,594 | 32,951 | 0 | 0 | 30 |
| Sierra Ave. | Valencia to Orange | 16,800 | 25,100 | 0 | 0 | 30 |
| Sierra Ave. | Orange to Merrill | 21,864 | 34,069 | 27,200 | 22,612 | 30 |
| Sierra Ave. | Merrill to Athol | 19,000 | 26,600 | 25,200 | 25,200 | 40 |
| Sierra Ave. | Athol to Randall | 27,582 | 37,072 | 35,761 | 32,688 | 40 |
| Valencia Ave. | Juniper to Sierra | 1,426 | 3,910 | 3,486 | 2,157 | 25 |
| Valencia Ave. | Sierra to Mango | 1,160 | 3,644 | 3,220 | 1,891 | 25 |
| Wheeler Ave. | Arrow to Valencia | 874 | 1,311 | 15,365 | 11,224 | 25 |
| Wheeler Ave. | Valencia to Orange | 400 | 700 | 12900 | 12900 | 25 |

Notes:
1) Kittleson Associates, December 2022.
2) Speed was modeled as posted.

## Table 9: Vehicle Mix Data

| Motor-Vehicle Type[1] | Daytime % (7AM to 7 PM) | Evening % (7 PM to 10 PM) | Night % (10 PM to 7 AM) | Total % of Traffic Flow[2] |
|---|---|---|---|---|
| **Existing** | | | | |
| Automobiles | 77.7 | 12.7 | 9.6 | 93.30 |
| Medium Trucks | 87.4 | 5.1 | 7.5 | 1.84 |
| Heavy Trucks | 89.1 | 2.8 | 8.1 | 4.86 |
| **2040 No Project** | | | | |
| Automobiles | 77.7 | 12.7 | 9.6 | 94.80 |
| Medium Trucks | 87.4 | 5.1 | 7.5 | 1.84 |
| Heavy Trucks | 89.1 | 2.8 | 8.1 | 3.36 |
| **2040 With Project** | | | | |
| Automobiles | 77.7 | 12.7 | 9.6 | 95.40 |
| Medium Trucks | 87.4 | 5.1 | 7.5 | 1.84 |
| Heavy Trucks | 89.1 | 2.8 | 8.1 | 2.76 |
| **2040 Alternative 1** | | | | |
| Automobiles | 77.7 | 12.7 | 9.6 | 93.60 |
| Medium Trucks | 87.4 | 5.1 | 7.5 | 1.84 |
| Heavy Trucks | 89.1 | 2.8 | 8.1 | 4.56 |

Notes:
[1] Typical Southern California Traffic Mix
[2] Project VMT Summary Total Daily VMT in Study Area

# *6.0 Existing Noise Environment*

## 6.1 General Land Use Noise

Existing land uses within the Project Area include single and multiple-family residential development, commercial, recreational, institutional, and industrial land uses. Noise sources associated with existing land uses include residential maintenance, parking lot noise, heating, and cooling system (HVAC) noise, property maintenance noise, trash truck noise, loading and unloading noise, and recreational noise.

## 6.2 Noise Measurements

Two (2) long-term 24-hour noise measurements and eight (8) short-term 10-minute noise measurements were conducted throughout the Project Area to document the existing noise environment. Noise measurement locations are shown in Exhibit G.

### 6.2.1 Short-Term Noise Measurements

Eight short-term noise measurements (10-minute) were taken in order to document the daytime Leq level at different locations throughout the Project Area. Measured noise levels ranged between 51.3 and 71.2 dBA Leq. Vehicle noise associated with Foothill Boulevard, Arrow Boulevard, Merrill Avenue, and Randall Avenue, and railway noise were the primary sources of ambient noise. Noise measurement results are presented in Table 10. Field notes and meter output are provided in Appendix B.

**Table 10: Short-Term Noise Measurement Summary**

| Noise Measurement Location | Approximate Location | Date | Time | A-Weighted Sound Level (dBA) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Leq | Lmax | Lmin | L2 | L8 | L25 | L50 |
| ST1 | 17095 Foothill Blvd. | 12/08/22 | 3:24 PM | 67.3 | 87.6 | 51.2 | 73.6 | 69.4 | 65.6 | 60.0 |
| ST2 | 8212 Bennett Ave. | 12/08/22 | 3:51 PM | 69.3 | 89.0 | 44.7 | 79.0 | 70.6 | 61.6 | 54.3 |
| ST3 | 17004 Arrow Blvd. | 12/08/22 | 11:55 AM | 56.3 | 64.6 | 49.8 | 63.4 | 61.0 | 56.1 | 54.0 |
| ST4 | 16725 Valencia Ave. | 12/08/22 | 2:22 PM | 58.5 | 80.7 | 44.0 | 63.3 | 60.3 | 55.2 | 51.2 |
| ST5 | 8999 Olive St. | 12/08/22 | 2:03 PM | 51.3 | 69.9 | 43.9 | 56.4 | 53.6 | 51.3 | 49.4 |
| ST6 | 9100 Acacia Ave. | 12/08/22 | 12:33 PM | 52.2 | 74.7 | 38.8 | 57.2 | 50.5 | 44.9 | 42.6 |
| ST7 | 9289 Juniper Ave. | 12/08/22 | 1:35 PM | 71.2 | 89.6 | 51.4 | 81.0 | 72.0 | 68.1 | 64.6 |
| ST8 | 17110 Randall Ave. | 12/08/22 | 1:09 PM | 67.7 | 88.6 | 47.4 | 74.5 | 69.1 | 65.0 | 62.0 |

Notes:
dBA = A-weighted decibels, Leq = equivalent noise level, Lmax = maximum noise level, Lmin = minimum noise level, Ln = noise level exceeded n percent of the measurement period, 10-minute duration

### 6.2.2 Long-Term Noise Measurements

Two (2) long-term noise measurements (24 consecutive hours) were taken in order to document the Community Noise Equivalent Level (CNEL) at different locations throughout the Project Area. As shown in Table 11, the measured CNEL was 71.2 at 40 feet from the centerline of Juniper Ave. and 80.1 dBA at 100 feet from the railroad. The primary noise sources were vehicle traffic and railway noise. Table 11 also outlines the daytime (7 AM to 7 PM), evening (7 PM to 10 PM), and nighttime (10 PM to 7 AM) Leq

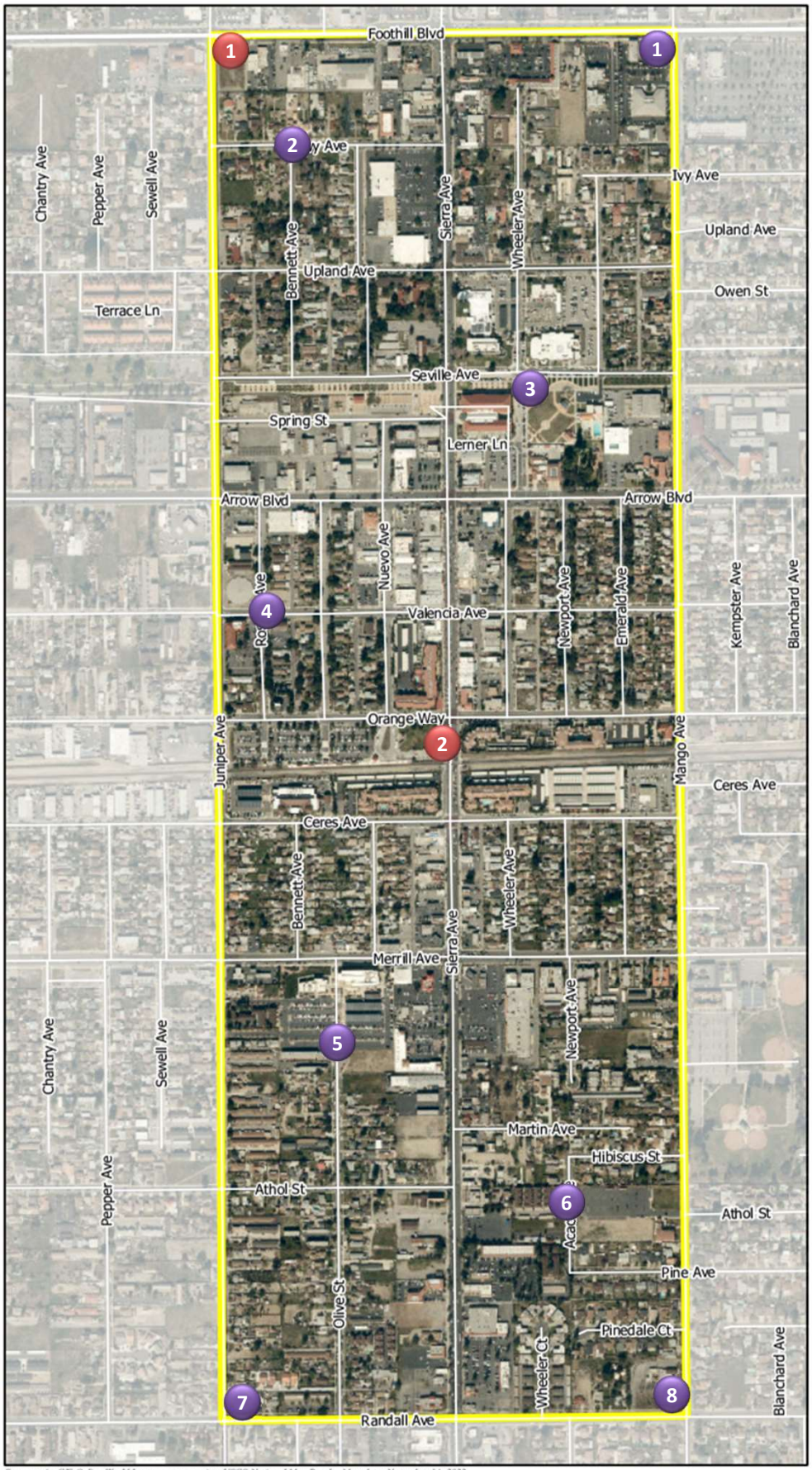
levels at each location. These represent the average level over each time period (day/evening/night). Field notes and meter output are provided in Appendix B.

**Table 11: Long-Term Noise Measurement Summary**

| Noise Measurement Location | Approximate Location | Date | Description | A-Weighted Sound Level (dBA) | | | |
|---|---|---|---|---|---|---|---|
| | | | | Daytime Leq | Evening Leq | Nighttime Leq | CNEL |
| LT1 | Juniper Ave. near Foothill Blvd. | 12/7/22-12/8/22 | vehicle noise | 66.6 | 66.8 | 63.8 | 71.2 |
| LT2 | Sierra Ave. near Metrolink | 12/7/22-12/8/22 | vehicle noise, rail noise | 74.2 | 75.5 | 73.1 | 80.1 |

Notes:
dBA = A-weighted decibels
Leq = equivalent noise level
Lmax = maximum noise level
Lmin = minimum noise level
Ln = noise level exceeded n percent of the measurement period
24-hour duration

# Exhibit G
# Noise Measurement Location Map




x = Short-Term measurement (10-Minute)

x = Long-Term measurement (24-Hour)

0 500 1,000
Feet

*Sources: ArcGIS Online World Imagery map service; USGS National Map Roads. Map date: November 14, 2022.*

## 6.3 Existing Noise Modeling

The primary sources of noise in Fontana are transportation-related noises. Foothill Boulevard and Sierra Avenue, along with other major roadways create ambient noise levels that affect the overall quality of life in the community. Modelled existing noise levels provided in Table 12 and on Exhibit H, confirm that there are currently sensitive land uses in the project area that are exposed to noise levels above 65 dBA CNEL.

It should be noted that the modeled noise contours do not take into account factors such as existing buildings, walls, etc. that may reduce or in some cases, amplify noise sources. Measured noise levels provided in Tables 10 and 11, do take into account existing structures as well as other noise sources.

Those areas in the City that currently experience sound levels greater than 65 dBA CNEL are typically near major vehicular traffic corridors. Traffic noise levels typically depend on three factors: (1) the volume of traffic, (2) the average speed of traffic, and (3) the vehicle mix (i.e., the percentage of trucks versus automobiles in the traffic flow). Vehicle noise includes noises produced by the engine, exhaust, tires, and wind generated by taller vehicles. Other factors that affect the perception of traffic noise include the distance from the highway, terrain, heavy vegetation, and natural and structural obstacles. While tire noise from automobiles is generally located at ground level, some truck noise sources may emanate from 12 feet or more above the ground.

**Table 12: Existing Exterior Noise Levels Along Roadways**

| Roadway | Segment Limits | CNEL, dBA @50 ft | Distance to Contour (feet) | | | |
|---|---|---|---|---|---|---|
| | | | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| Arrow Blvd. | Juniper to Rosena | 71.0 | 64 | 201 | 636 | 2011 |
| Arrow Blvd. | Rosena to Nuevo | 69.3 | 42 | 134 | 423 | 1337 |
| Arrow Blvd. | Nuevo to Sierra | 70.2 | 52 | 166 | 524 | 1657 |
| Arrow Blvd. | Sierra to Wheeler | 70.1 | 51 | 161 | 509 | 1609 |
| Arrow Blvd. | Wheeler to Emerald | 69.3 | 42 | 134 | 423 | 1337 |
| Arrow Blvd. | Emerald to Mango | 69.3 | 42 | 134 | 423 | 1337 |
| Ceres Ave. | Nuevo to Sierra | 58.1 | 3 | 10 | 32 | 103 |
| Foothill Blvd. | Juniper to Sierra | 73.4 | 110 | 348 | 1100 | 3480 |
| Foothill Blvd. | Sierra to Mango | 72.9 | 98 | 310 | 981 | 3101 |
| Juniper Ave. | Foothill to Upland | 68.4 | 35 | 109 | 346 | 1093 |
| Juniper Ave. | Upland to Arrow | 67.9 | 31 | 97 | 305 | 966 |
| Juniper Ave. | Arrow to Valencia | 69.0 | 40 | 126 | 400 | 1265 |
| Mango Ave. | Foothill to Upland | 66.9 | 24 | 77 | 244 | 773 |
| Mango Ave. | Upland to Valencia | 68.2 | 33 | 104 | 330 | 1044 |
| Mango Ave. | Valencia to Merrill | 67.5 | 28 | 89 | 282 | 890 |
| Merrill Ave. | Juniper to Mango | 70.0 | 50 | 159 | 504 | 1593 |
| Nuevo Ave. | Arrow to Valencia | 54.9 | 2 | 5 | 15 | 49 |
| Nuevo Ave. | Valencia to Orange | 54.5 | 1 | 5 | 14 | 45 |
| Orange Way | Nuevo to Sierra | 61.6 | 7 | 23 | 72 | 228 |

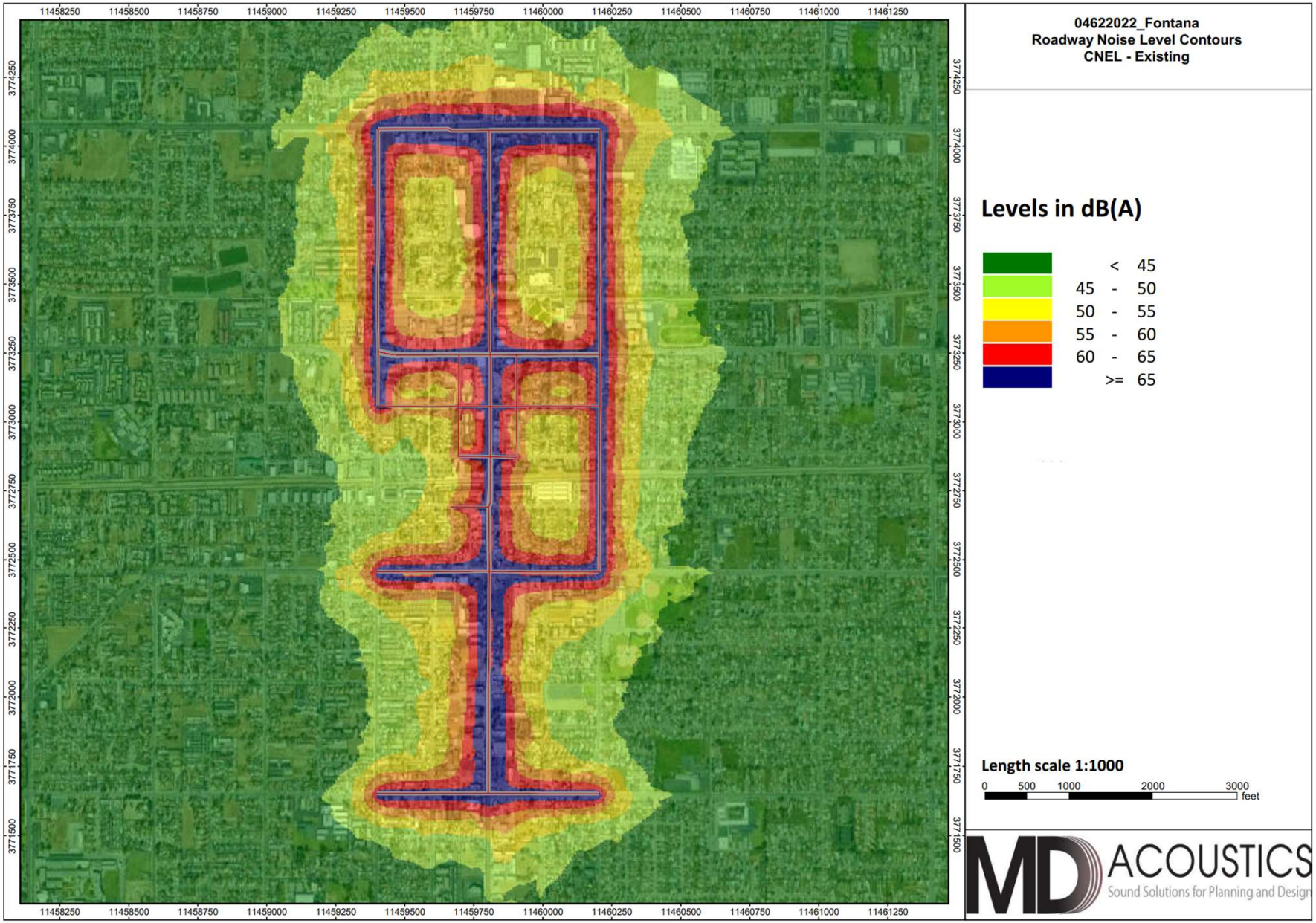
| Roadway | Segment Limits | CNEL, dBA @50 ft | Distance to Contour (feet) | | | |
|---|---|---|---|---|---|---|
| | | | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| Orange Way | Sierra to Wheeler | 59.2 | 4 | 13 | 42 | 133 |
| Randall Ave. | Juniper to Mango | 67.9 | 31 | 98 | 310 | 981 |
| Sierra Ave. | Foothill to Upland | 70.2 | 53 | 167 | 529 | 1673 |
| Sierra Ave. | Upland to Arrow | 68.6 | 36 | 115 | 365 | 1154 |
| Sierra Ave. | Arrow to Valencia | 70.3 | 54 | 170 | 539 | 1703 |
| Sierra Ave. | Valencia to Orange | 69.0 | 40 | 125 | 397 | 1254 |
| Sierra Ave. | Orange to Merrill | 70.7 | 59 | 187 | 591 | 1868 |
| Sierra Ave. | Merrill to Athol | 71.8 | 76 | 240 | 757 | 2395 |
| Sierra Ave. | Athol to Randall | 73.6 | 115 | 363 | 1149 | 3635 |
| Valencia Ave. | Juniper to Sierra | 56.9 | 2 | 8 | 24 | 77 |
| Valencia Ave. | Sierra to Mango | 56.0 | 2 | 6 | 20 | 62 |
| Wheeler Ave. | Arrow to Valencia | 54.7 | 1 | 5 | 15 | 47 |
| Wheeler Ave. | Valencia to Orange | 51.3 | 1 | 2 | 7 | 21 |

Notes:

1. Exterior noise levels calculated at 5-feet above ground.
2. Noise levels calculated from centerline of subject roadway.
3. Contour Distances do not take into account potential noise reduction from existing barriers such as buildings, walls or berms as a worst-case scenario for planning screening purposes. Overall levels are likely lower at sensitive receptors.

Exhibit H

# Existing Roadway Noise Level Contours (CNEL)



## 6.3 Existing Airport/Aircraft Noise

There are no airports located within the Project Area and the Project Area is not located within any airport noise contours. The closest airport to the Project Area is the Ontario International Airport located approximately 8 miles southwest of the Project Area. The noise contours associated with this airport do not encroach into the Project Area.

## 6.4 Existing Railway Noise

Existing and future developments within 455 feet of the Metrolink rail line may be exposed to levels above 65 dBA CNEL due to rail noise. Developments within 593 feet of a crossing with a horn warning may be exposed to levels above 65 dBA CNEL due to rail noise. The long-term measurement by the rail line (LT2) confirms that levels by the rail are above 65 dBA CNEL.

## 6.5 Existing Vibration Sources in the Project Area

The main sources of vibration in the project area are related to vehicles and construction. Typical roadway traffic, including heavy trucks, rarely generates vibration amplitudes high enough to cause structural or cosmetic damage. However, there have been cases in which heavy trucks traveling over potholes or other discontinuities in the pavement have caused vibration high enough to result in complaints from nearby residents. These types of issues typically can be resolved by smoothing the roadway surface (Caltrans 2020).

Construction activities that produce vibration that can be felt by adjacent land uses include the use of vibratory equipment, large bulldozers, and pile drivers. The primary source of vibration during construction is usually from a bulldozer. A large bulldozer has a peak particle velocity of 0.089 inches per second at 25 feet.

# *7.0 Future Noise Environment, Impacts, and Mitigation*

This assessment analyzes future noise impacts to and from the proposed Project and compares the results to the City of Fontana General Plan Policies and Noise Standards. The analysis details the estimated noise levels associated with traffic from adjacent roadways and on-site stationary noise sources. Each future noise source related to the Project was evaluated in light of applicable City of Fontana General Plan policies and ordinances and programmatic mitigation measures are provided as applicable.

## 7.1 Transportation Noise

Transportation noise includes noise from aircraft, railways, and roadways. There are no airstrips within 2 miles of the project site and therefore has no impact. Future developments within 725 feet of a crossing with a horn warning may be exposed to levels above 65 dBA CNEL. Future developments within 560 feet of the rail line and more than 725 feet from a crossing with a horn warning may be exposed to levels above 65 dBA CNEL. However, railway activity is not anticipated to increase as a result of the Project, and there is therefore no impact.

The primary noise source in the Project Area will continue to be vehicle traffic. Future traffic noise level contours are presented in Exhibit I. Tables 13 through 15 show the future noise levels at a distance of 50 feet from the centerline of studied roadways by the year 2040 for No Project, With Project, and Alternate 1. The distances to the 55, 60, 65, and 70 dBA CNEL noise contours are also provided.

**Table 13: 2040 No Project Traffic Noise Levels (dBA, CNEL)**

| Roadway | Segment Limits | CNEL, dBA @50 ft | Distance to Contour (feet) | | | |
|---|---|---|---|---|---|---|
| | | | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| Arrow Blvd. | Juniper to Rosena | 71.1 | 64 | 204 | 644 | 2037 |
| Arrow Blvd. | Rosena to Nuevo | 70.0 | 50 | 158 | 500 | 1580 |
| Arrow Blvd. | Nuevo to Sierra | 70.9 | 62 | 196 | 620 | 1959 |
| Arrow Blvd. | Sierra to Wheeler | 70.4 | 55 | 175 | 552 | 1746 |
| Arrow Blvd. | Wheeler to Emerald | 69.6 | 45 | 143 | 454 | 1435 |
| Arrow Blvd. | Emerald to Mango | 70.1 | 51 | 160 | 506 | 1601 |
| Ceres Ave. | Nuevo to Sierra | 58.6 | 4 | 11 | 36 | 114 |
| Foothill Blvd. | Juniper to Sierra | 74.0 | 125 | 394 | 1246 | 3939 |
| Foothill Blvd. | Sierra to Mango | 73.6 | 115 | 363 | 1148 | 3629 |
| Juniper Ave. | Foothill to Upland | 68.5 | 36 | 113 | 357 | 1131 |
| Juniper Ave. | Upland to Arrow | 69.7 | 46 | 147 | 464 | 1468 |
| Juniper Ave. | Arrow to Valencia | 69.1 | 41 | 128 | 406 | 1283 |
| Mango Ave. | Foothill to Upland | 67.3 | 27 | 84 | 267 | 844 |
| Mango Ave. | Upland to Valencia | 68.1 | 32 | 102 | 322 | 1017 |
| Mango Ave. | Valencia to Merrill | 68.4 | 34 | 109 | 343 | 1085 |
| Merrill Ave. | Juniper to Mango | 70.2 | 52 | 164 | 518 | 1639 |
| Nuevo Ave. | Arrow to Valencia | 55.7 | 2 | 6 | 18 | 58 |

| Roadway | Segment Limits | CNEL, dBA @50 ft | Distance to Contour (feet) | | | |
|---|---|---|---|---|---|---|
| | | | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| Nuevo Ave. | Valencia to Orange | 55.2 | 2 | 5 | 17 | 53 |
| Orange Way | Nuevo to Sierra | 66.4 | 22 | 69 | 219 | 692 |
| Orange Way | Sierra to Wheeler | 58.6 | 4 | 11 | 36 | 115 |
| Randall Ave. | Juniper to Mango | 68.0 | 31 | 99 | 312 | 987 |
| Sierra Ave. | Foothill to Upland | 71.3 | 68 | 215 | 680 | 2150 |
| Sierra Ave. | Upland to Arrow | 69.3 | 42 | 134 | 425 | 1343 |
| Sierra Ave. | Arrow to Valencia | 71.1 | 64 | 203 | 643 | 2032 |
| Sierra Ave. | Valencia to Orange | 69.9 | 48 | 153 | 485 | 1533 |
| Sierra Ave. | Orange to Merrill | 71.8 | 75 | 238 | 753 | 2382 |
| Sierra Ave. | Merrill to Athol | 72.6 | 91 | 288 | 911 | 2881 |
| Sierra Ave. | Athol to Randall | 74.2 | 133 | 420 | 1327 | 4197 |
| Valencia Ave. | Juniper to Sierra | 60.2 | 5 | 17 | 53 | 167 |
| Valencia Ave. | Sierra to Mango | 59.9 | 5 | 16 | 49 | 156 |
| Wheeler Ave. | Arrow to Valencia | 55.5 | 2 | 6 | 18 | 55 |
| Wheeler Ave. | Valencia to Orange | 52.7 | 1 | 3 | 9 | 30 |

Notes:

1. Exterior noise levels calculated at 5-feet above ground.

2. Noise levels calculated from centerline of subject roadway.

3. Contour Distances do not take into account potential noise reduction from existing barriers such as buildings, walls or berms as a worst-case scenario for planning screening purposes. Overall levels are likely lower at sensitive receptors.

## Table 14: 2040 Plus Project Traffic Noise Levels (dBA, CNEL)

| Roadway | Segment Limits | CNEL, dBA @50 ft | Distance to Contour (feet) | | | |
|---|---|---|---|---|---|---|
| | | | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| Arrow Blvd. | Juniper to Rosena | 70.7 | 59 | 187 | 591 | 1869 |
| Arrow Blvd. | Rosena to Nuevo | 69.6 | 46 | 144 | 456 | 1441 |
| Arrow Blvd. | Nuevo to Sierra | 71.8 | 75 | 238 | 751 | 2376 |
| Arrow Blvd. | Sierra to Wheeler | 72.2 | 83 | 261 | 826 | 2611 |
| Arrow Blvd. | Wheeler to Emerald | 68.9 | 39 | 123 | 389 | 1229 |
| Arrow Blvd. | Emerald to Mango | 70.0 | 50 | 157 | 495 | 1565 |
| Ceres Ave. | Nuevo to Sierra | 58.6 | 4 | 12 | 37 | 115 |
| Foothill Blvd. | Juniper to Sierra | 73.6 | 116 | 365 | 1156 | 3654 |
| Foothill Blvd. | Sierra to Mango | 73.4 | 109 | 345 | 1092 | 3454 |
| Juniper Ave. | Foothill to Upland | 68.5 | 36 | 113 | 357 | 1127 |
| Juniper Ave. | Upland to Arrow | 69.7 | 47 | 149 | 472 | 1491 |
| Juniper Ave. | Arrow to Valencia | 69.1 | 41 | 129 | 409 | 1292 |
| Mango Ave. | Foothill to Upland | 67.3 | 27 | 85 | 268 | 847 |
| Mango Ave. | Upland to Valencia | 68.7 | 37 | 117 | 369 | 1168 |
| Mango Ave. | Valencia to Merrill | 69.6 | 46 | 144 | 455 | 1440 |
| Merrill Ave. | Juniper to Mango | 70.2 | 53 | 167 | 530 | 1675 |
| Nuevo Ave. | Arrow to Valencia | 66.1 | 20 | 64 | 203 | 643 |

| Roadway | Segment Limits | CNEL, dBA @50 ft | Distance to Contour (feet) | | | |
|---|---|---|---|---|---|---|
| | | | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| Nuevo Ave. | Valencia to Orange | 66.7 | 23 | 74 | 234 | 740 |
| Orange Way | Nuevo to Sierra | 70.1 | 51 | 163 | 514 | 1625 |
| Orange Way | Sierra to Wheeler | 69.1 | 40 | 127 | 402 | 1272 |
| Randall Ave. | Juniper to Mango | 67.7 | 29 | 92 | 292 | 925 |
| Sierra Ave. | Foothill to Upland | 70.8 | 59 | 188 | 594 | 1879 |
| Sierra Ave. | Upland to Arrow | 68.4 | 35 | 110 | 349 | 1102 |
| Sierra Ave. | Arrow to Valencia | -- | -- | -- | -- | -- |
| Sierra Ave. | Valencia to Orange | -- | -- | -- | -- | -- |
| Sierra Ave. | Orange to Merrill | 70.4 | 55 | 173 | 548 | 1732 |
| Sierra Ave. | Merrill to Athol | 72.1 | 81 | 255 | 807 | 2551 |
| Sierra Ave. | Athol to Randall | 73.8 | 120 | 378 | 1196 | 3783 |
| Valencia Ave. | Juniper to Sierra | 59.3 | 4 | 13 | 42 | 134 |
| Valencia Ave. | Sierra to Mango | 58.9 | 4 | 12 | 39 | 124 |
| Wheeler Ave. | Arrow to Valencia | 65.7 | 18 | 58 | 184 | 583 |
| Wheeler Ave. | Valencia to Orange | 64.9 | 15 | 49 | 155 | 490 |

Notes:

1. Exterior noise levels calculated at 5-feet above ground.

2. Noise levels calculated from centerline of subject roadway.

3. Contour Distances do not take into account potential noise reduction from existing barriers such as buildings, walls or berms as a worst-case scenario for planning screening purposes. Overall levels are likely lower at sensitive receptors.

## Table 15: 2040 Alternate 1 Traffic Noise Levels (dBA, CNEL)

| Roadway | Segment Limits | CNEL, dBA @50 ft | Distance to Contour (feet) | | | |
|---|---|---|---|---|---|---|
| | | | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| Arrow Blvd. | Juniper to Rosena | 71.6 | 71 | 226 | 714 | 2259 |
| Arrow Blvd. | Rosena to Nuevo | 70.6 | 57 | 180 | 569 | 1798 |
| Arrow Blvd. | Nuevo to Sierra | 72.0 | 80 | 252 | 795 | 2515 |
| Arrow Blvd. | Sierra to Wheeler | 72.3 | 86 | 271 | 857 | 2710 |
| Arrow Blvd. | Wheeler to Emerald | 69.9 | 49 | 153 | 485 | 1534 |
| Arrow Blvd. | Emerald to Mango | 70.9 | 62 | 195 | 618 | 1954 |
| Ceres Ave. | Nuevo to Sierra | 59.2 | 4 | 13 | 41 | 131 |
| Foothill Blvd. | Juniper to Sierra | 74.4 | 139 | 439 | 1388 | 4389 |
| Foothill Blvd. | Sierra to Mango | 74.1 | 129 | 407 | 1288 | 4073 |
| Juniper Ave. | Foothill to Upland | 69.5 | 44 | 141 | 445 | 1407 |
| Juniper Ave. | Upland to Arrow | 70.7 | 59 | 186 | 588 | 1861 |
| Juniper Ave. | Arrow to Valencia | 69.4 | 44 | 138 | 436 | 1378 |
| Mango Ave. | Foothill to Upland | 68.2 | 33 | 106 | 334 | 1057 |
| Mango Ave. | Upland to Valencia | 68.9 | 39 | 122 | 387 | 1222 |
| Mango Ave. | Valencia to Merrill | 70.6 | 57 | 180 | 568 | 1798 |
| Merrill Ave. | Juniper to Mango | 70.9 | 61 | 194 | 612 | 1936 |
| Nuevo Ave. | Arrow to Valencia | 65.5 | 18 | 56 | 177 | 558 |

| Roadway | Segment Limits | CNEL, dBA @50 ft | Distance to Contour (feet) | | | |
|---|---|---|---|---|---|---|
| | | | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| Nuevo Ave. | Valencia to Orange | 67.7 | 29 | 92 | 292 | 924 |
| Orange Way | Nuevo to Sierra | 69.7 | 46 | 146 | 462 | 1462 |
| Orange Way | Sierra to Wheeler | 68.9 | 39 | 123 | 388 | 1228 |
| Randall Ave. | Juniper to Mango | 68.2 | 33 | 105 | 331 | 1045 |
| Sierra Ave. | Foothill to Upland | 71.0 | 62 | 197 | 623 | 1969 |
| Sierra Ave. | Upland to Arrow | 69.5 | 45 | 143 | 451 | 1425 |
| Sierra Ave. | Arrow to Valencia | -- | -- | -- | -- | -- |
| Sierra Ave. | Valencia to Orange | -- | -- | -- | -- | -- |
| Sierra Ave. | Orange to Merrill | 70.7 | 59 | 186 | 589 | 1862 |
| Sierra Ave. | Merrill to Athol | 72.9 | 98 | 309 | 976 | 3087 |
| Sierra Ave. | Athol to Randall | 74.2 | 132 | 419 | 1324 | 4186 |
| Valencia Ave. | Juniper to Sierra | 58.5 | 4 | 11 | 35 | 111 |
| Valencia Ave. | Sierra to Mango | 57.9 | 3 | 10 | 31 | 98 |
| Wheeler Ave. | Arrow to Valencia | 65.6 | 18 | 57 | 181 | 573 |
| Wheeler Ave. | Valencia to Orange | 66.2 | 21 | 66 | 208 | 659 |

Notes:

1. Exterior noise levels calculated at 5-feet above ground.

2. Noise levels calculated from centerline of subject roadway.

3. Contour Distances do not take into account potential noise reduction from existing barriers such as buildings, walls or berms as a worst-case scenario for planning screening purposes. Overall levels are likely lower at sensitive receptors.

As shown in Tables 13 through 15 and Exhibit I, J, and K, by the year 2040, existing land uses adjacent to the studied roadways will be exposed to noise levels that exceed the City's exterior standards of 65 dBA CNEL for sensitive uses. A significant impact would occur if the project resulted in levels higher than 65 dBA CNEL and increased the overall roadway noise level by 3 dBA CNEL, which is a noticeable change in noise level.

Compared to existing traffic noise levels, 2040 without Project traffic volumes are expected to be up to 4.8 dBA CNEL louder than existing ambient noise levels at existing land uses and will result in audible increases in ambient noise along Orange Way and Valencia Avenue (see Table 16). Levels along Orange Way between Nuevo Avenue and Sierra Avenue will increase more than 3 dB and will be above 65 dBA CNEL. Sensitive receptors along those segments include a park and multifamily residential uses. Implementation of the Project will result in substantial permanent increases in existing noise levels at existing and future sensitive receptors.

Compared to existing traffic noise levels, 2040 with Project traffic volumes are expected to be up to 13.6 dBA CNEL louder than existing ambient noise levels at existing land uses and will result in audible increases in ambient noise along Nuevo Avenue, Orange Way, and Wheeler Avenue (see Table 16). Levels along Nuevo Avenue from Arrow Boulevard to Orange Way, Orange Way from Nuevo Avenue to Wheeler Avenue, and Wheeler Avenue from Arrow Boulevard to Valencia Avenue will increase more than 3 dB and will be above 65 dBA CNEL. Sensitive receptors along Nuevo Avenue include a single-family residential uses and multifamily residential uses. There are no sensitive uses along Nuevo Avenue from

Arrow Boulevard to Valencia Avenue. Sensitive receptors along Orange Way include a park and multifamily residential uses. Sensitive receptors along Wheeler Avenue include single-family residential uses. Implementation of the Project will result in substantial permanent increases in existing noise levels at existing and future sensitive receptors along these segments.

Compared to existing traffic noise levels, 2040 Alternate 1 traffic volumes are expected to be up to 11.2 dBA CNEL louder than existing ambient noise levels at existing land uses and will result in audible increases in ambient noise along Mango Avenue, Nuevo Avenue, Orange Way, and Wheeler Avenue (see Table 16). Levels along Orange Way will increase more than 3 dB and will be above 65 dBA CNEL. Sensitive receptors along Mango Avenue include single-family residential uses. Sensitive receptors along Nuevo Avenue include single-family residential uses and multifamily residential uses. There are no sensitive uses along Nuevo Avenue from Arrow Boulevard to Valencia Avenue. Sensitive receptors along Orange Way include a park and multifamily residential uses. Sensitive receptors along Wheeler Avenue include single-family residential uses. Implementation of the Project will result in substantial permanent increases in existing noise levels at existing and future sensitive receptors along these segments.

**Table 16: Change in Noise Along Roadways (dBA, CNEL @ 50')**

| Roadway | Segment | Existing | 2040 No Project | | 2040 With Project | | 2040 Alternate 1 | |
|---|---|---|---|---|---|---|---|---|
| | | CNEL @ 50' dBA | CNEL @ 50' dBA | Change in Noise Level | CNEL @ 50' dBA | Change in Noise Level | CNEL @ 50' dBA | Change in Noise Level |
| Arrow Blvd. | Juniper to Rosena | **71.0** | **71.1** | 0.1 | **70.7** | -0.3 | **71.6** | 0.5 |
| Arrow Blvd. | Rosena to Nuevo | **69.3** | **70.0** | 0.7 | **69.6** | 0.3 | **70.6** | 1.3 |
| Arrow Blvd. | Nuevo to Sierra | **70.2** | **70.9** | 0.7 | **71.8** | 1.6 | **72.0** | 1.8 |
| Arrow Blvd. | Sierra to Wheeler | **70.1** | **70.4** | 0.4 | **72.2** | 2.1 | **72.3** | 2.3 |
| Arrow Blvd. | Wheeler to Emerald | **69.3** | **69.6** | 0.3 | **68.9** | -0.4 | **69.9** | 0.6 |
| Arrow Blvd. | Emerald to Mango | **69.3** | **70.1** | 0.8 | **70.0** | 0.7 | **70.9** | 1.6 |
| Ceres Ave. | Nuevo to Sierra | 58.1 | 58.6 | 0.5 | 58.6 | 0.5 | 59.2 | 1.1 |
| Foothill Blvd. | Juniper to Sierra | **73.4** | **74.0** | 0.5 | **73.6** | 0.2 | **74.4** | 1.0 |
| Foothill Blvd. | Sierra to Mango | **72.9** | **73.6** | 0.7 | **73.4** | 0.5 | **74.1** | 1.2 |
| Juniper Ave. | Foothill to Upland | **68.4** | **68.5** | 0.1 | **68.5** | 0.1 | **69.5** | 1.1 |
| Juniper Ave. | Upland to Arrow | **67.9** | **69.7** | 1.8 | **69.7** | 1.9 | **70.7** | 2.8 |
| Juniper Ave. | Arrow to Valencia | **69.0** | **69.1** | 0.1 | **69.1** | 0.1 | **69.4** | 0.4 |
| Mango Ave. | Foothill to Upland | **66.9** | **67.3** | 0.4 | **67.3** | 0.4 | **68.2** | 1.4 |
| Mango Ave. | Upland to Valencia | **68.2** | **68.1** | -0.1 | **68.7** | 0.5 | **68.9** | 0.7 |
| Mango Ave. | Valencia to Merrill | **67.5** | **68.4** | 0.9 | **69.6** | 2.1 | **70.6** | **3.1** |
| Merrill Ave. | Juniper to Mango | **70.0** | **70.2** | 0.1 | **70.2** | 0.2 | **70.9** | 0.8 |
| Nuevo Ave. | Arrow to Valencia | 54.9 | 55.7 | 0.8 | **66.1** | **11.2** | **65.5** | **10.6** |
| Nuevo Ave. | Valencia to Orange | 54.5 | 55.2 | 0.7 | **66.7** | **12.2** | **67.7** | **13.1** |
| Orange Way | Nuevo to Sierra | 61.6 | **66.4** | **4.8** | **70.1** | **8.5** | **69.7** | **8.1** |
| Orange Way | Sierra to Wheeler | 59.2 | 58.6 | -0.6 | **69.1** | **9.8** | **68.9** | **9.7** |
| Randall Ave. | Juniper to Mango | **67.9** | **68.0** | 0.0 | **67.7** | -0.3 | **68.2** | 0.3 |
| Sierra Ave. | Foothill to Upland | **70.2** | **71.3** | 1.1 | **70.8** | 0.5 | **71.0** | 0.7 |

| Roadway | Segment | Existing | 2040 No Project | | 2040 With Project | | 2040 Alternate 1 | |
|---|---|---|---|---|---|---|---|---|
| | | CNEL @ 50' dBA | CNEL @ 50' dBA | Change in Noise Level | CNEL @ 50' dBA | Change in Noise Level | CNEL @ 50' dBA | Change in Noise Level |
| Sierra Ave. | Upland to Arrow | **68.6** | **69.3** | 0.7 | **68.4** | -0.2 | **69.5** | 0.9 |
| Sierra Ave. | Arrow to Valencia | **70.3** | **71.1** | 0.8 | -- | -- | -- | -- |
| Sierra Ave. | Valencia to Orange | **69.0** | **69.9** | 0.9 | -- | -- | -- | -- |
| Sierra Ave. | Orange to Merrill | **70.7** | **71.8** | 1.1 | **70.4** | -0.3 | **70.7** | 0.0 |
| Sierra Ave. | Merrill to Athol | **71.8** | **72.6** | 0.8 | **72.1** | 0.3 | **72.9** | 1.1 |
| Sierra Ave. | Athol to Randall | **73.6** | **74.2** | 0.6 | **73.8** | 0.2 | **74.2** | 0.6 |
| Valencia Ave. | Juniper to Sierra | 56.9 | 60.2 | **3.4** | 59.3 | -- | 58.5 | -- |
| Valencia Ave. | Sierra to Mango | 56.0 | 59.9 | **4.0** | 58.9 | 3.0 | 57.9 | 1.9 |
| Wheeler Ave. | Arrow to Valencia | 54.7 | 55.5 | 0.8 | **65.7** | **11.0** | **65.6** | **10.9** |
| Wheeler Ave. | Valencia to Orange | 51.3 | 52.7 | 1.4 | 64.9 | **13.6** | **66.2** | **14.9** |

Notes:

1. Existing and Future traffic volumes compiled from the traffic study prepared for the Project (Kittleson & Associates, Inc. Dec 2022).
2. An impact would occur if the Project increased the roadway segment level by 3 dB or more (an audible difference) and resulting in a future level above 65 dBA CNEL. Bolded cells are 65 dBA CNEL or more than 3 dB. Significant Impacts are in red.

Exhibit I

# 2040 No Project Noise Contours (CNEL)

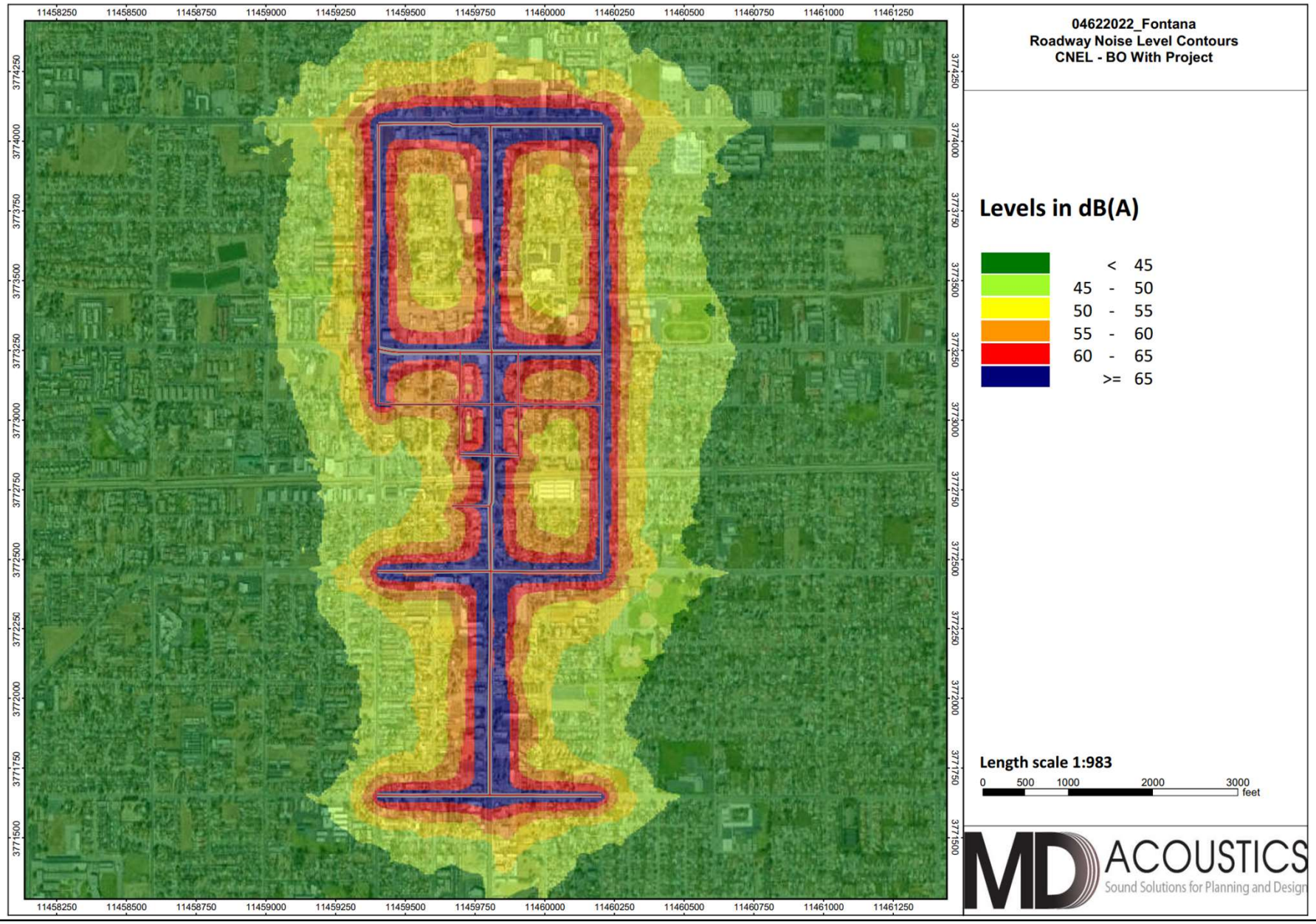


Exhibit J

# 2040 With Project Noise Contours (CNEL)

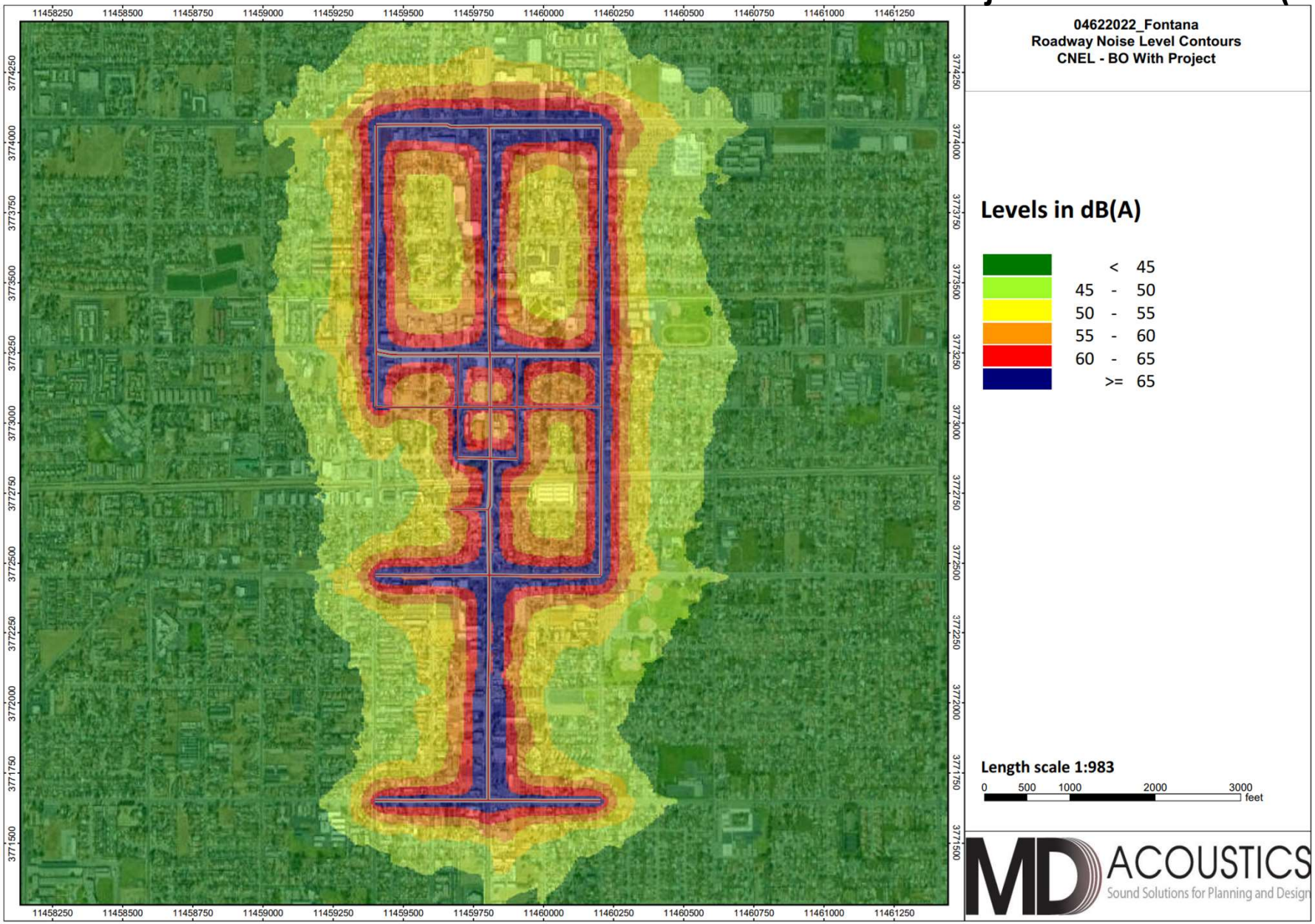
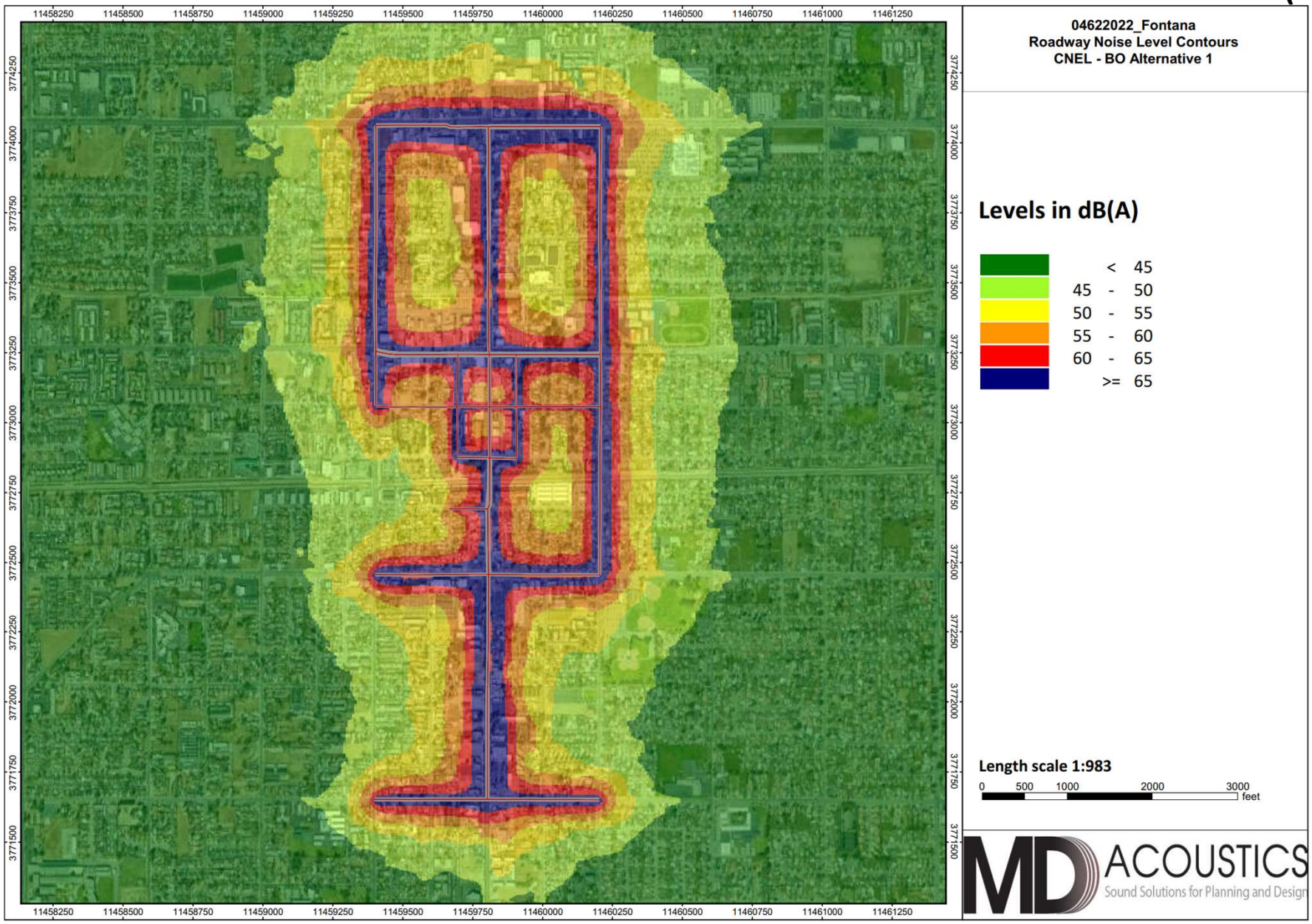


Exhibit K

# 2040 Alternative 1 Noise Contours (CNEL)



Implementation of the proposed Project will result in significant impacts related to exceedances of the land use compatibility criteria and substantial increases in ambient noise levels as presented in Table 16. Table 16 does not include sensitive uses that are further than 50 ft from the centerline and does not consider noise reduction factors such as property line walls. Where existing land uses will be impacted, the impact would be significant and unavoidable as setback distances of existing sensitive receptors are already established. In order to reduce these impacts, the use of sound walls or quiet pavements could be employed. Construction of new sound walls could be a feasible mitigation measure. However, many impacted residential uses along the roadway segments listed above are accessed directly via driveways off the main roadway or may already have a sound wall. A new sound wall would require many driveway openings, resulting in partial noise barriers. These openings in the sound wall would substantially reduce the noise barrier performance.

Additionally, raising the heights of sound walls or constructing new noise barriers would result in encroachment on private property. Such encroachment would require private property owners to allow permission to enter their property. Raising sound wall heights would likely require enlarging footings, thereby requiring the demolition of existing sound walls. Therefore, the use of new sound walls or modifying sound walls is not considered to be practical.

Quiet pavements have been used to mitigate traffic noise and are typically assumed to provide a 3 to 5 dBA reduction. Quiet pavement placed along sensitive receptor areas on the impacted roadway segments could reduce traffic noise levels. Many of the noise impacts outlined in the previous tables could potentially be mitigated through the use of quiet pavement. However, not all impacted roadway segments could be mitigated by quiet pavements due to the magnitude of the traffic noise increases. Additionally, widespread repaving of Project Area streets with quiet pavements would be expensive and impractical. There are no feasible noise reduction measures for existing sensitive land uses. Future sensitive land uses can be mitigated using MM-NOI-1 of the Fontana General Plan Environmental Impact Report.

## 7.2 Stationary Noise

Implementation of the Project could result in the future development of land uses that generate noise levels in excess of applicable City noise standards for non-transportation noise sources as outlined in Section 4.3.3. While the Project does not explicitly propose any new noise-generating uses, Project implementation would allow for the development of mixed-uses, increased residential development at higher densities, and new commercial development, which may result in new noise sources. Specific development projects and the details of future noise-generating land uses that may be located in the Project Area in the future are not known at this time. Additionally, noise from existing stationary sources, as identified in the Existing Settings Section, would continue to impact noise-sensitive land uses in the vicinity of the noise sources.

While no specific projects are proposed under the Project, changes in land use may allow for more intensive noise-generating uses in closer proximity to noise-sensitive uses. Where this occurs, detailed noise studies would be required to ensure that noise control measures are implemented into the project design. Such measures could include the redesign of stationary noise sources away from sensitive uses,

construction of sound walls or berms between noise generating uses and sensitive uses, using buildings to create additional buffer distance and screening, or other site design measures to ensure that non-transportation (stationary) noise sources do not cause exterior noise levels to exceed allowable standards at sensitive receptors.

## 7.3 Construction Noise

The degree of construction noise may vary for different projects within the scope of the proposed Project and also vary depending on the construction activities. Noise levels associated with the construction will vary with the different phases of construction. Construction must occur between the times of 7AM and 6PM on weekdays and 8AM to 5PM on Saturdays per Section 18-63(b)(7) of the Fontana Municipal Code. There are no specific limits for noise levels during those times.

The Environmental Protection Agency (EPA) has compiled data regarding the noise-generated characteristics of typical construction activities. The data is presented in Table 17. These noise levels would diminish rapidly with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 86 dBA measured 50 feet from the noise source would reduce to 80 dBA at 100 feet. At 200 feet from the noise source, the noise level would reduce to 74 dBA. At 400 feet, the noise source would reduce by another 6 dBA to 68 dBA. Contractors are required to comply with the City of Fontana's Noise Ordinance during construction described in Section 18-63(7).

**Table 17: Typical Construction Noise Levels**

| Equipment Powered by Internal Combustion Engines | |
|---|---|
| **Type** | **Noise Levels (dBA) at 50 Feet** |
| **Earth Moving** | |
| Compactors (Rollers) | 73 - 76 |
| Front Loaders | 73 - 84 |
| Backhoes | 73 - 92 |
| Tractors | 75 - 95 |
| Scrapers, Graders | 78 - 92 |
| Pavers | 85 - 87 |
| Trucks | 81 - 94 |
| **Materials Handling** | |
| Concrete Mixers | 72 - 87 |
| Concrete Pumps | 81 - 83 |
| Cranes (Movable) | 72 - 86 |
| Cranes (Derrick) | 85 - 87 |
| **Stationary** | |
| Pumps | 68 - 71 |
| Generators | 71 - 83 |
| Compressors | 75 - 86 |
| **Impact Equipment** | |
| Saws | 71 - 82 |
| Vibrators | 68 - 82 |
| Notes:<br>Source: Reference Noise Levels from the Environmental Protection Agency (EPA) | |

### 7.3.1 Construction Related Traffic

Individual projects within the scope of the Project would result in short-term noise impacts associated with construction activities. Two types of short-term noise impacts could occur during construction activities. First, construction crew commute and the transport of construction equipment and materials to the site for the proposed Project would incrementally increase noise levels on access roads leading to the site. Truck traffic associated with project construction should be limited to within the permitted construction hours, as listed in the City's Municipal Code Section 18-63(7). Although there would be a relatively high single-event noise exposure potential at a maximum of 87 dBA Lmax at 50 ft from passing trucks, causing possible short-term intermittent annoyances, the effect on ambient noise levels would be less than 1 dBA when averaged over one hour or 24 hours. In other words, the changes in noise levels over 1 hour or 24 hours attributable to passing trucks would not be perceptible to the normal human ear.

### 7.3.2 On-Site Construction Activities

Site preparation phase, which includes grading and paving, tends to generate the highest noise levels since the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery such as backhoes, bulldozers, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 or 4 minutes at lower power settings. Site-specific construction activities associated with future development is expected to require the use of scrapers, bulldozers, motor graders, and water and pickup trucks. The maximum noise level generated by each scraper is assumed to be approximately 87 dBA Lmax at 50 ft from the scraper in operation. Each bulldozer would also generate approximately 85 dBA Lmax at 50 ft. The maximum noise level generated by the sound sources with equal strength increases the noise level by 3 dBA. Noise reduction potential will be Project and site-specific. Construction noise would be an impact if construction occurred outside of the hours outlined in Section 18-63(7) of the Fontana Municipal Code. Potential impacts would be site-specific, depending on the equipment used and distances to sensitive receptors. These impacts can be reduced to less than significant with implementation of MM-NOI-1 and MM-NOI-2 of the General Plan Environmental Impact Report. MM-NOI-1 requires site-specific studies to identify potential construction noise impacts to off-site sensitive uses. MM-NOI-2 requires the following procedures:

- Construction equipment, fixed or mobile, shall be properly outfitted and maintained with feasible noise-reduction devices to minimize construction generated noise.
- Laydown and construction vehicle staging areas shall be located away from noise sensitive land uses if feasible.
- Stationary noise sources such as generators shall be located away from noise sensitive land uses, if feasible.
- Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow surrounding property owners to contact the job superintendent 24 hours a day to report noise and other nuisance-related issues, if necessary. The point of contact shall be available 24 hours a day, 7 days a week and have

authority to commit additional assets to control dust after hours, on weekends, and on holidays. In the event that the City of Fontana receives a pattern of noise complaints, appropriate corrective actions shall be implemented, such as on site noise monitoring during construction activities, and a report of the action shall be provided to the reporting party.

Construction activities must occur within the allowed hours outlined in Section 18-63(7) of the Municipal Code.

## 7.4 Groundborne Vibration

The main sources of vibration in the project area are related to vehicles and construction and railway vibration. Typical roadway traffic, including heavy trucks, rarely generates vibration amplitudes high enough to cause structural or cosmetic damage. However, there have been cases in which heavy trucks traveling over potholes or other discontinuities in the pavement have caused vibration high enough to result in complaints from nearby residents. These types of issues typically can be resolved by smoothing the roadway surface (Caltrans 2020).

### 7.4.1 On-Site Construction Activities

Construction activities that produce vibration that can be felt by adjacent land uses include the use of vibratory equipment, large bulldozers, and pile drivers. The primary sources of vibration during construction are usually vibratory rollers and large bulldozers. As shown in Table 18, a vibratory roller has a peak particle velocity (inches/second) of 0.21 and a large bulldozer has a peak particle velocity of 0.089 (inches per second) at 25 feet. The use of pile driving equipment can generate a peak particle velocity of 1.5 (inches per second) depending on the size and model.

**Table 18: Vibration Source Levels for Construction Equipment**

| Equipment | Peak Particle Velocity (inches/second) at 25 feet | Approximate Vibration Level LV (VdB) at 25 feet |
|---|---|---|
| Pile driver (impact) | 1.518 (upper range) | 112 |
| | 0.644 (typical) | 104 |
| Pile driver (sonic) | 0.734 upper range | 105 |
| | 0.170 typical | 93 |
| Clam shovel drop (slurry wall) | 0.202 | 94 |
| Hydromill | 0.008 in soil | 66 |
| (slurry wall) | 0.017 in rock | 75 |
| Vibratory Roller | 0.21 | 94 |
| Hoe Ram | 0.089 | 87 |
| Large bulldozer | 0.089 | 87 |
| Caisson drill | 0.089 | 87 |
| Loaded trucks | 0.076 | 86 |
| Jackhammer | 0.035 | 79 |

**Table 18: Vibration Source Levels for Construction Equipment**

| | | |
|---|---|---|
| Small bulldozer | 0.003 | 58 |

Source: Transit Noise and Vibration Impact Assessment, Federal Transit Administration, May 2006.

The California Department of Transportation has published one of the seminal works for the analysis of ground-borne noise and vibration relating to transportation- and construction-induced vibrations and, although the Project is not subject to these regulations, it serves as a useful tool to evaluate vibration impacts (California Department of Transportation, 2013). Table 19 provides maximum PPV levels (inches/second) to be used to determine the typical human response to transient vibration. When evaluated in light of the estimated groundborne vibration levels presented in Table 18, it can be determined that construction activities in the project area have the potential to result in significant impacts related to groundborne vibration associated with construction activities. However, implementation of MM-NOI-1 of the General Plan Environmental Impact Report which requires site-specific acoustical studies to analyze construction impact will ensure that vibration levels comply with Section 30-470 and 30-543 of the Fontana Municipal Code which require vibration levels to be imperceptible beyond adjacent residential property lines. Additionally, implementation of MM-NOI-2 will help to achieve this requirement.

**Table 19: Human Response to Transient Vibration**

| PPV (in/sec) | Human Response |
|---|---|
| 2.0 | Severe |
| 0.9 | Strongly perceptible |
| 0.24 | Distinctly perceptible |
| 0.035 | Barely perceptible |

Source: California Department of Transportation and Construction Vibration Guidance Manual. April 2020.

Note: transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

# *8.0 CEQA Analysis*

The California Environmental Quality Act Guidelines (Appendix G) establishes thresholds for noise impact analysis as presented below:

*(a) Would the project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise Code, or applicable standards of other agencies?*

Transportation Noise Impacts

Traffic noise will be significant if levels are increased by more than 3 dBA to levels above 65 dBA CNEL in areas with sensitive uses. Compared to existing traffic noise levels, 2040 plus Project and 2040 plus Alternate 1 traffic volumes are expected to be up to 13.6 and 14.9 dBA CNEL louder respectively than existing ambient noise levels at existing land uses and will result in substantial increases in ambient noise along Neuvo Avenue, Orange Way, and Wheeler Avenue (see Table 16). Alternative 1 will also result in a significant increase along Mango Avenue. Implementation of the proposed Project will result in substantial permanent increases in existing noise levels at sensitive receptors.

Implementation of the proposed Project will result in significant impacts related to exceedances of the land use compatibility criteria and substantial increases in ambient noise levels as presented in Table 16. ***Where existing land uses will be impacted, the impact would be significant and unmitigable. Where proposed land uses are expected to be exposed to noise levels that exceed the 65 dBA CNEL land use compatibility criteria, impacts can be mitigated to "less than significant" with implementation of noise control measures such as relocating outdoor recreational areas away from 65 dBA CNEL or greater areas or shielding outdoor areas using noise barriers.***

Stationary Noise Sources

Stationary noise will be significant if it exceeds the levels outlined in the Fontana Municipal Code as outlined in Section 4.3.3. Implementation of the Downtown Core Project may result in stationary noise impacts from future uses. Implementation of good land use planning and policies and actions can minimize noise impacts related to these sources by avoiding the placement of noise generating equipment near noise-sensitive land uses and where unavoidable, include design measures to the degree practical to avoid violating the noise criteria presented in Section 4.3.3. ***Stationary noise impacts can be mitigated to "less than significant" with implementation of MM-NOI-1 of the General Plan Environmental Impact Report.***

Construction Noise and Vibration

Construction noise will be significant if construction occurs outside of the hours specified in Section 18-63(7) of the Fontana Municipal Code. The potential impact is site-specific and depends on the construction equipment used and distance to adjacent sensitive receptors. Implementation of the proposed Project could result in short-term noise impacts associated with construction activities. Two types of short-term noise impacts could occur during construction activities, on-site and off-site.

Construction crew commute and the transport of construction equipment and materials to the site for the proposed Project would incrementally increase noise levels on access roads leading to the site. Truck traffic associated with project construction should be limited to within the permitted construction hours, as listed in the City's Municipal Code. Although there would be a relatively high single-event noise exposure potential at a maximum of 87 dBA Lmax at 50 ft from passing trucks, causing possible short-term intermittent annoyances, the effect on ambient noise levels would be less than 1 dBA when averaged over one hour or 24 hours. In other words, the changes in noise levels over 1 hour or 24 hours attributable to passing trucks would not be perceptible to the normal human ear. ***Therefore, short-term construction-related impacts associated with worker commute and equipment transport on local streets leading to the project site would result in a less than significant impact on noise-sensitive receptors along the access routes. No mitigation is required.***

The site preparation phase of on-site construction activities, which includes grading and paving, tends to generate the highest noise levels since the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery such as backhoes, bulldozers, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 or 4 minutes at lower power settings. Site-specific construction activities associated with future development are expected to require the use of scrapers, bulldozers, motor graders, and water and pickup trucks. The maximum noise level generated by each scraper is assumed to be approximately 87 dBA Lmax at 50 ft from the scraper in operation. Each bulldozer would also generate approximately 85 dBA Lmax at 50 ft. The maximum noise level generated by the sound sources with equal strength increases the noise level by 3 dBA. Noise reduction potential will be Project and site-specific. ***Implementation of the General Plan Environmental Impact Report mitigation measures MM-NOI-1 and MM-NOI-2 and Section 18-63(7) of the Municipal Code during site-specific projects will reduce the impact to less than significant.***

*b) Generate excessive ground-borne vibration or ground-borne noise levels?*
Construction vibration will be significant if vibration can be felt beyond the property line per Section 30-470 and 30-543 of the Municipal Code. Noise studies done in the Project Area per MM-NOI-1 of the General Plan Environmental Impact Report must ensure that construction vibration levels are below perceptible levels. MM-NOI-2 will help to achieve this threshold. ***This impact would be less than significant with the implementation of MM-NOI-1 and MM-NOI-2 of the General Plan Environmental Impact Report.***

# *9.0 References*

**American National Standards Institute (ANSI)**

Specifications for sound level meters (S1.4-1983 identified in Chapter 19.68.020.AA).

**California, State of, Building Standards Commission**

2019 California Uniform Building Code (UBC), Title 24.
2019 Green Code Section 5.507.4.3 (2019)

**California Department of Transportation (Caltrans)**

2013 Technical Noise Supplement to the Traffic Noise Analysis Protocol.
2020 Transportation and Construction Vibration Guidance Manual. April.
2021 Caltrans Traffic Counts https://dot.ca.gov/programs/traffic-operations/census

**California Office of Noise Control**

2017 Guidelines for the Preparation and Content of Noise Elements of the General Plan. February.

**Environmental Protection Agency (EPA)**

1974 Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. Prepared by the EPA, Office of Noise Abatement and Control.

**Federal Interagency Committee on Noise**

1992 Federal Agency Review of Selected Airport Noise Analysis Issues. August.

**Federal Transit Administration**

2006 Transit Noise and Vibration Impact Assessment. Typical Construction Equipment Vibration Emissions. FTAVA-90-1003-06.

**Fontana, City of**

2018 Fontana Forward, General Plan Update 2015-2035.
City of Fontana Code of Ordinance.

**Office of Planning and Research, State of California**

2017 Office of Planning and Research, General Plan Guidelines.

**Appendix A:**
SoundPLAN Data

| | Segment | EXISTING | BO No Project | BO With Project | BO Alternative 1 | Design Speed (mph) | DISTANCE NEAR/FAR LANE (ft) |
|---|---|---|---|---|---|---|---|
| Arrow Blvd | Juniper to Rosena | 13,667 | 16,483 | 16,370 | 15,860 | 35 | 80 |
| Arrow Blvd | Rosena to Nuevo | 10,800 | 15,200 | 15,000 | 15,000 | 35 | 70 |
| Arrow Blvd | Nuevo to Sierra | 14,076 | 19,817 | 26,021 | 22,071 | 35 | 66 |
| Arrow Blvd | Sierra to Wheeler | 13,665 | 17,663 | 28,592 | 23,781 | 35 | 66 |
| Arrow Blvd | Wheeler to Emerald | 10,800 | 13,800 | 12,800 | 12,800 | 35 | 70 |
| Arrow Blvd | Emerald to Mango | 10,800 | 15,400 | 16,300 | 16,300 | 35 | 70 |
| Ceres Ave | Nuevo to Sierra | 1,894 | 2,650 | 2,989 | 2,519 | 25 | 30 |
| Foothill Blvd | Juniper to Sierra | 21,370 | 27,602 | 27,137 | 27,636 | 45 | 50 |
| Foothill Blvd | Sierra to Mango | 17,600 | 23,500 | 23,700 | 23,700 | 45 | 60 |
| Juniper Ave | Foothill to Upland | 11,200 | 13,800 | 14,900 | 14,900 | 35 | 42 |
| Juniper Ave | Upland to Arrow | 10,000 | 18,100 | 19,900 | 19,900 | 35 | 40 |
| Juniper Ave | Arrow to Valencia | 13,323 | 16,097 | 17,554 | 14,995 | 35 | 36 |
| Mango Ave | Foothill to Upland | 8,000 | 10,400 | 11,300 | 11,300 | 35 | 40 |
| Mango Ave | Upland to Valencia | 10,905 | 12,655 | 15,728 | 13,191 | 35 | 38 |
| Mango Ave | Valencia to Merrill | 9,300 | 13,500 | 19,400 | 19,400 | 35 | 38 |
| Merrill Ave | Juniper to Mango | 12,843 | 15,380 | 16,815 | 16,061 | 40 | 42 |
| Nuevo Blvd | Arrow to Valencia | 928 | 1,392 | 17,153 | 11,076 | 25 | 18 |
| Nuevo Blvd | Valencia to Orange | 500 | 700 | 10,600 | 10,600 | 35 | 18 |
| Orange Blvd | Nuevo to Sierra | 2,332 | 8,445 | 21,478 | 15,482 | 35 | 42 |
| Orange Blvd | Sierra to Wheeler | 1,376 | 1,415 | 16,973 | 13,137 | 35 | 40 |
| Randall Ave | Juniper to Mango | 7,643 | 8,954 | 8,978 | 8,381 | 40 | 48 |
| Sierra Ave | Foothill to Upland | 21,180 | 33,274 | 31,931 | 25,880 | 30 | 50 |
| Sierra Ave | Upland to Arrow | 15,600 | 22,200 | 20,000 | 20,000 | 30 | 38 |
| Sierra Ave | Arrow to Valencia | 22,594 | 32,951 | 0 | 0 | 30 | 42 |
| Sierra Ave | Valencia to Orange | 16,800 | 25,100 | 0 | 0 | 30 | 40 |
| Sierra Ave | Orange to Merrill | 21,864 | 34,069 | 27,200 | 22,612 | 30 | 60 |
| Sierra Ave | Merrill to Athol | 19,000 | 26,600 | 25,200 | 25,200 | 40 | 45 |
| Sierra Ave | Athol to Randall | 27,582 | 37,072 | 35,761 | 32,688 | 40 | 52 |
| Valencia Blvd | Juniper to Sierra | 1,426 | 3,910 | 3,486 | 2,157 | 25 | 28 |
| Valencia Blvd | Sierra to Mango | 1,160 | 3,644 | 3,220 | 1,891 | 25 | 28 |
| Wheeler Blvd | Arrow to Valencia | 874 | 1,311 | 15,365 | 11,224 | 25 | 24 |
| Wheeler Blvd | Valencia to Orange | 400 | 700 | 12,900 | 12,900 | 25 | 24 |
| | | | | | | | |
| | | | | | | | |

| EXISTING | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.9330 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.0184 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.0486 |

| BO No Project | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.9480 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.0184 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.0336 |

| BO With Project | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.9540 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.0184 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.0276 |

| BO Alternative 1 | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.9360 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.0184 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.0456 |

| | EXISTING | DAY | EVE | NIGHT |
|---|---|---|---|---|
| | AUTOMOBILES | 604.12 | 394.97 | 99.52 |
| | MEDIUM TRUCKS | 13.41 | 3.10 | 1.54 |
| | HEAVY TRUCKS | 36.09 | 4.60 | 4.35 |

| | BO No Project | DAY | EVE | NIGHT |
|---|---|---|---|---|
| | AUTOMOBILES | 613.83 | 401.32 | 101.12 |
| | MEDIUM TRUCKS | 13.41 | 3.10 | 1.54 |
| SP ENTRY | HEAVY TRUCKS | 24.95 | 3.18 | 3.01 |

| | BO With Project | DAY | EVE | NIGHT |
|---|---|---|---|---|
| | AUTOMOBILES | 617.72 | 403.86 | 101.76 |
| | MEDIUM TRUCKS | 13.41 | 3.10 | 1.54 |
| | HEAVY TRUCKS | 20.49 | 2.61 | 2.47 |

| | BO Alternative 1 | DAY | EVE | NIGHT |
|---|---|---|---|---|
| | AUTOMOBILES | 606.06 | 396.24 | 99.84 |
| | MEDIUM TRUCKS | 13.41 | 3.10 | 1.54 |
| | HEAVY TRUCKS | 33.86 | 4.32 | 4.08 |

# Appendix B:

Noise Measurement Data and Field Sheets

**24-Hour Continuous Noise Measurement Datasheet**

**Project Name:** Fontana SB2 Planning Grant Award

**Project: #/Name:** 0462-2020-022

**Site Address/Location:** 16700 Foothill

**Date:** 12/08/2022

**Field Tech/Engineer:** Jason Schuyler/ Claire Pincock

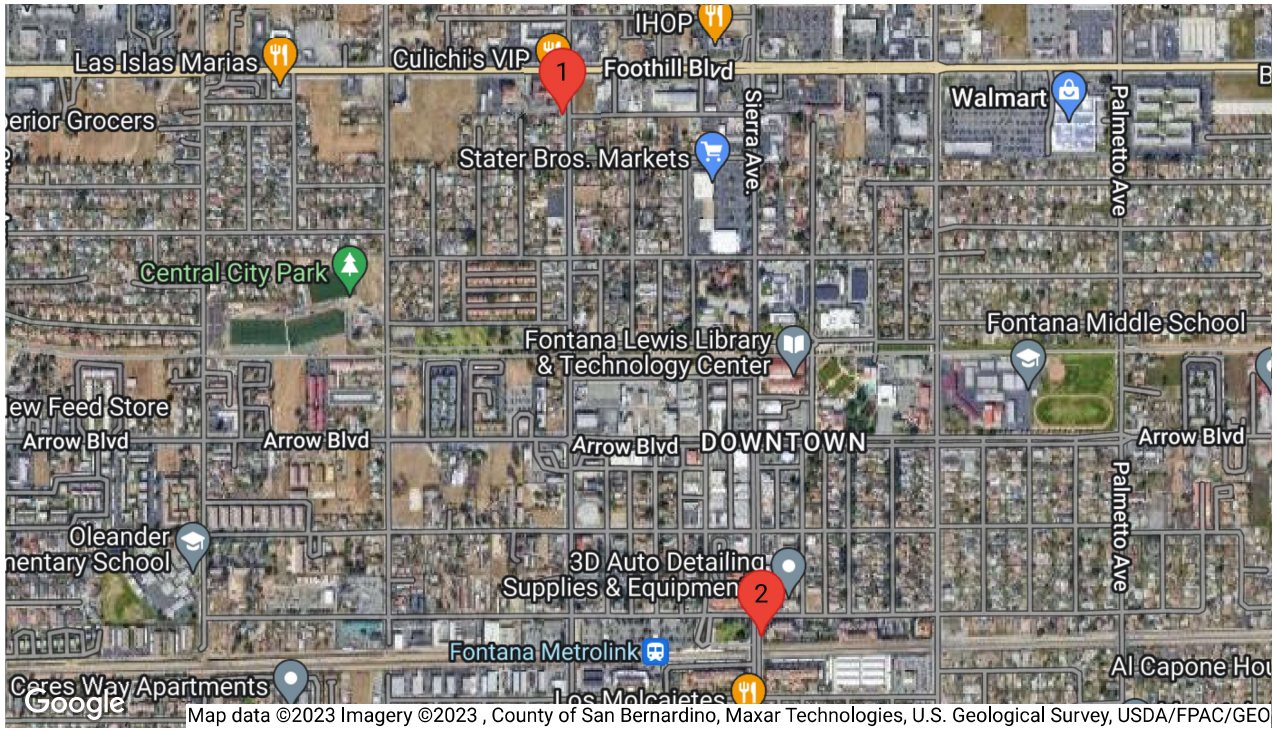
**Site Observations:**

Temps in the 60's during the day, winds 1-5 MPH partly cloudy. This area has a large transient population, and meter placement was challenging, but in this meter was placed 5' off the level of the street in a bush.

**Sound Meter:** Piccolo 2, Soft dB **SN:** P02QC2019080205

**Settings:** A-weighted, slow, 1-min, 24-hour duration

**Site Id:** LT1, LT2




MD ACOUSTICS

**24-Hour Continuous Noise Measurement Datasheet - Cont.**

**Project Name:** Fontana SB2 Planning Grant Award

**Site Address/Location:** 16700 Foothill

**Site Id:** LT1, LT2

Figure 1: LT1

Figure 2: LT2

**24-Hour Continuous Noise Measurement Datasheet - Cont.**

| | | | | | |
|---|---|---|---|---|---|
| **Project Name:** | Fontana SB2 Planning Grant Award | **Site Topo:** | Flat | **Day:** 1 of 2 | |
| **Site Address/Location:** | 16700 Foothill | **Meteorological Cond.:** | Clear | **Noise Source(s) w/ Distance:** | |
| **Site Id:** | LT1 | **Ground Type:** | Hard | 40' from Juniper Ave | |

Table 1: Baseline Noise Measurement Summary

| Date | Start | Stop | Leq | Lmax | Lmin | L2 | L8 | L25 | L50 | L90 |
|---|---|---|---|---|---|---|---|---|---|---|
| 12/7/2022 | 3:00 PM | 4:00 PM | 66.2 | 84.7 | 45.9 | 69.9 | 68.9 | 67.9 | 65.6 | 61.6 |
| 12/7/2022 | 4:00 PM | 5:00 PM | 68 | 93.6 | 49.7 | 75.1 | 69 | 67.4 | 65.8 | 61.8 |
| 12/7/2022 | 5:00 PM | 6:00 PM | 67.1 | 89.4 | 49.5 | 70.2 | 69.4 | 68 | 66.3 | 61.9 |
| 12/7/2022 | 6:00 PM | 7:00 PM | 66.5 | 86.5 | 46.6 | 70.7 | 68.8 | 67.8 | 65.9 | 62 |
| 12/7/2022 | 7:00 PM | 8:00 PM | 68 | 95.5 | 44.3 | 74.1 | 70 | 67 | 65.7 | 61.3 |
| 12/7/2022 | 8:00 PM | 9:00 PM | 65.8 | 86.5 | 45.4 | 71.9 | 69 | 66.2 | 64 | 61.8 |
| 12/7/2022 | 9:00 PM | 10:00 PM | 66.4 | 90.1 | 45.1 | 74.3 | 70 | 65.6 | 63.6 | 59.4 |
| 12/7/2022 | 10:00 PM | 11:00 PM | 63.8 | 91.7 | 43.8 | 71 | 64.7 | 62.3 | 59.7 | 53.4 |
| 12/7/2022 | 11:00 PM | 12:00 AM | 62 | 88.1 | 41.1 | 66.4 | 65.2 | 62 | 59.3 | 49.9 |
| 12/8/2022 | 12:00 AM | 1:00 AM | 59 | 79 | 40.4 | 65.5 | 63.2 | 60.1 | 57.3 | 48.8 |
| 12/8/2022 | 1:00 AM | 2:00 AM | 57 | 80.3 | 41.3 | 65 | 61.8 | 57.3 | 50.6 | 46.6 |
| 12/8/2022 | 2:00 AM | 3:00 AM | 56.7 | 75.7 | 40.3 | 62.5 | 60.9 | 58.1 | 53.9 | 45.6 |
| 12/8/2022 | 3:00 AM | 4:00 AM | 57.1 | 78 | 40.2 | 61.6 | 60.3 | 58.3 | 56.5 | 47.7 |
| 12/8/2022 | 4:00 AM | 5:00 AM | 62.6 | 87.4 | 42.8 | 67.5 | 66.2 | 62.3 | 59.3 | 52 |
| 12/8/2022 | 5:00 AM | 6:00 AM | 63.7 | 78.9 | 47.3 | 69.6 | 66.8 | 64.2 | 62.9 | 58.2 |
| 12/8/2022 | 6:00 AM | 7:00 AM | 70.6 | 100.4 | 47.8 | 71.4 | 67.9 | 65.6 | 63.7 | 59.7 |
| 12/8/2022 | 7:00 AM | 8:00 AM | 68.5 | 95.8 | 50.5 | 76.3 | 69.8 | 68.5 | 65.2 | 61.3 |
| 12/8/2022 | 8:00 AM | 9:00 AM | 67.9 | 86.8 | 48.7 | 73.5 | 71.1 | 68.4 | 67.2 | 62.4 |
| 12/8/2022 | 9:00 AM | 10:00 AM | 65.4 | 86.2 | 45.3 | 69.8 | 67.9 | 65.6 | 64.9 | 59 |
| 12/8/2022 | 10:00 AM | 11:00 AM | 65.4 | 80.8 | 46 | 68.7 | 68.2 | 66.2 | 65.1 | 60.8 |
| 12/8/2022 | 11:00 AM | 12:00 PM | 65.9 | 87.8 | 43.5 | 73 | 68.7 | 66.4 | 64.3 | 59.3 |
| 12/8/2022 | 12:00 PM | 1:00 PM | 66.4 | 91.6 | 45.3 | 71.8 | 67.9 | 66.3 | 64.7 | 60.7 |
| 12/8/2022 | 1:00 PM | 2:00 PM | 64.8 | 81.8 | 46.5 | 69 | 67.4 | 66.1 | 64.3 | 60.7 |
| 12/8/2022 | 2:00 PM | 3:00 PM | 65.7 | 83.1 | 43.6 | 69.7 | 68.5 | 67.1 | 64.7 | 61.1 |

| | | |
|---|---|---|
| | DNL | 69.7 |

**24-Hour Continuous Noise Measurement Datasheet - Cont.**

| | | | | | |
|---|---|---|---|---|---|
| **Project Name:** | Fontana SB2 Planning Grant Award | **Site Topo:** | Flat | **Day:** 2 of 2 | |
| **Site Address/Location:** | 16700 Foothill | **Meteorological Cond.:** | Clear | **Noise Source(s) w/ Distance:** | |
| **Site Id:** | LT2 | **Ground Type:** | Hard | 100' from Railway | |

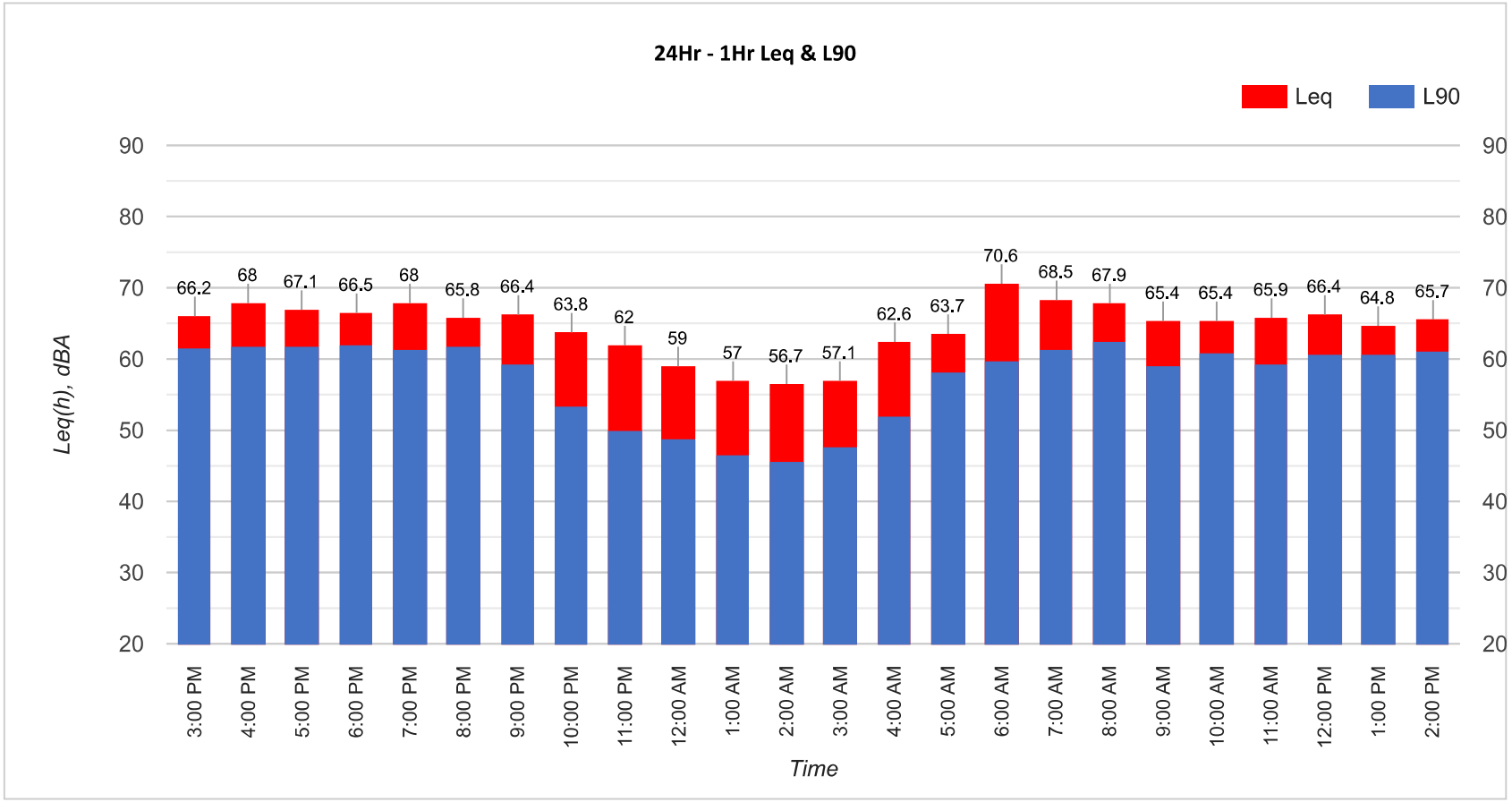
Table 2: Baseline Noise Measurement Summary

| Date | Start | Stop | Leq | Lmax | Lmin | L2 | L8 | L25 | L50 | L90 |
|---|---|---|---|---|---|---|---|---|---|---|
| 12/7/2022 | 3:00 PM | 4:00 PM | 69 | 99.2 | 47.5 | 73.6 | 70.5 | 68.9 | 66.5 | 60.7 |
| 12/7/2022 | 4:00 PM | 5:00 PM | 70.9 | 101.3 | 47.9 | 80.4 | 73.2 | 69.1 | 66.9 | 62.8 |
| 12/7/2022 | 5:00 PM | 6:00 PM | 77.5 | 107.3 | 50.1 | 85.3 | 71.9 | 69 | 67.7 | 62.3 |
| 12/7/2022 | 6:00 PM | 7:00 PM | 74.7 | 102.3 | 49.4 | 86.6 | 71.2 | 69.2 | 67.1 | 61.9 |
| 12/7/2022 | 7:00 PM | 8:00 PM | 76.1 | 104.4 | 49.5 | 87.8 | 76.4 | 68.6 | 66.4 | 62.8 |
| 12/7/2022 | 8:00 PM | 9:00 PM | 71.8 | 102.1 | 45.9 | 75 | 70 | 67.2 | 64.8 | 62.1 |
| 12/7/2022 | 9:00 PM | 10:00 PM | 76.9 | 104.7 | 47.3 | 88.5 | 75 | 67.5 | 65.5 | 62.3 |
| 12/7/2022 | 10:00 PM | 11:00 PM | 74.5 | 104.9 | 46.2 | 86.3 | 70.4 | 65.6 | 63.9 | 60 |
| 12/7/2022 | 11:00 PM | 12:00 AM | 73.6 | 106.3 | 45.4 | 74.3 | 67.2 | 65.1 | 63.2 | 58.2 |
| 12/8/2022 | 12:00 AM | 1:00 AM | 67.3 | 99.4 | 44 | 73.3 | 67.2 | 63.8 | 61.2 | 56.8 |
| 12/8/2022 | 1:00 AM | 2:00 AM | 64.5 | 94 | 44.4 | 66.9 | 64.5 | 61.7 | 58.8 | 51.4 |
| 12/8/2022 | 2:00 AM | 3:00 AM | 67.5 | 88.8 | 43.9 | 77.9 | 71 | 63.8 | 61.1 | 54.9 |
| 12/8/2022 | 3:00 AM | 4:00 AM | 70.2 | 103.3 | 44.9 | 72.4 | 66.3 | 64.4 | 61.9 | 55.4 |
| 12/8/2022 | 4:00 AM | 5:00 AM | 78 | 107.7 | 48.1 | 89.1 | 78.3 | 66.7 | 63.7 | 58.8 |
| 12/8/2022 | 5:00 AM | 6:00 AM | 72.3 | 103.4 | 50 | 83 | 71.5 | 67.2 | 65.3 | 61.8 |
| 12/8/2022 | 6:00 AM | 7:00 AM | 74.5 | 105.4 | 48.4 | 83.9 | 77.8 | 69.9 | 66.6 | 61.3 |
| 12/8/2022 | 7:00 AM | 8:00 AM | 73.9 | 105.8 | 49.6 | 79.9 | 72.4 | 70.8 | 67.4 | 62.4 |
| 12/8/2022 | 8:00 AM | 9:00 AM | 71.3 | 102.5 | 48.6 | 80.3 | 71.1 | 69.4 | 67.2 | 61.5 |
| 12/8/2022 | 9:00 AM | 10:00 AM | 74 | 104.6 | 48 | 83.4 | 70.6 | 68.7 | 66.3 | 63.6 |
| 12/8/2022 | 10:00 AM | 11:00 AM | 69.6 | 100.3 | 48 | 72.3 | 68.8 | 66.9 | 65.9 | 63 |
| 12/8/2022 | 11:00 AM | 12:00 PM | 76.6 | 106 | 46 | 85.6 | 73 | 68.3 | 66.1 | 61.2 |
| 12/8/2022 | 12:00 PM | 1:00 PM | 70.1 | 98.9 | 48.3 | 77.5 | 71.2 | 67.8 | 66.2 | 63.7 |
| 12/8/2022 | 1:00 PM | 2:00 PM | 77.1 | 102.8 | 50.6 | 87.5 | 80.5 | 69.8 | 68.1 | 64.9 |
| 12/8/2022 | 2:00 PM | 3:00 PM | 74.3 | 105.8 | 48.3 | 83 | 73 | 68.2 | 65 | 60.9 |

| | | |
|---|---|---|
| | DNL | 80.1 |

**24-Hour Continuous Noise Measurement Datasheet - Cont.**

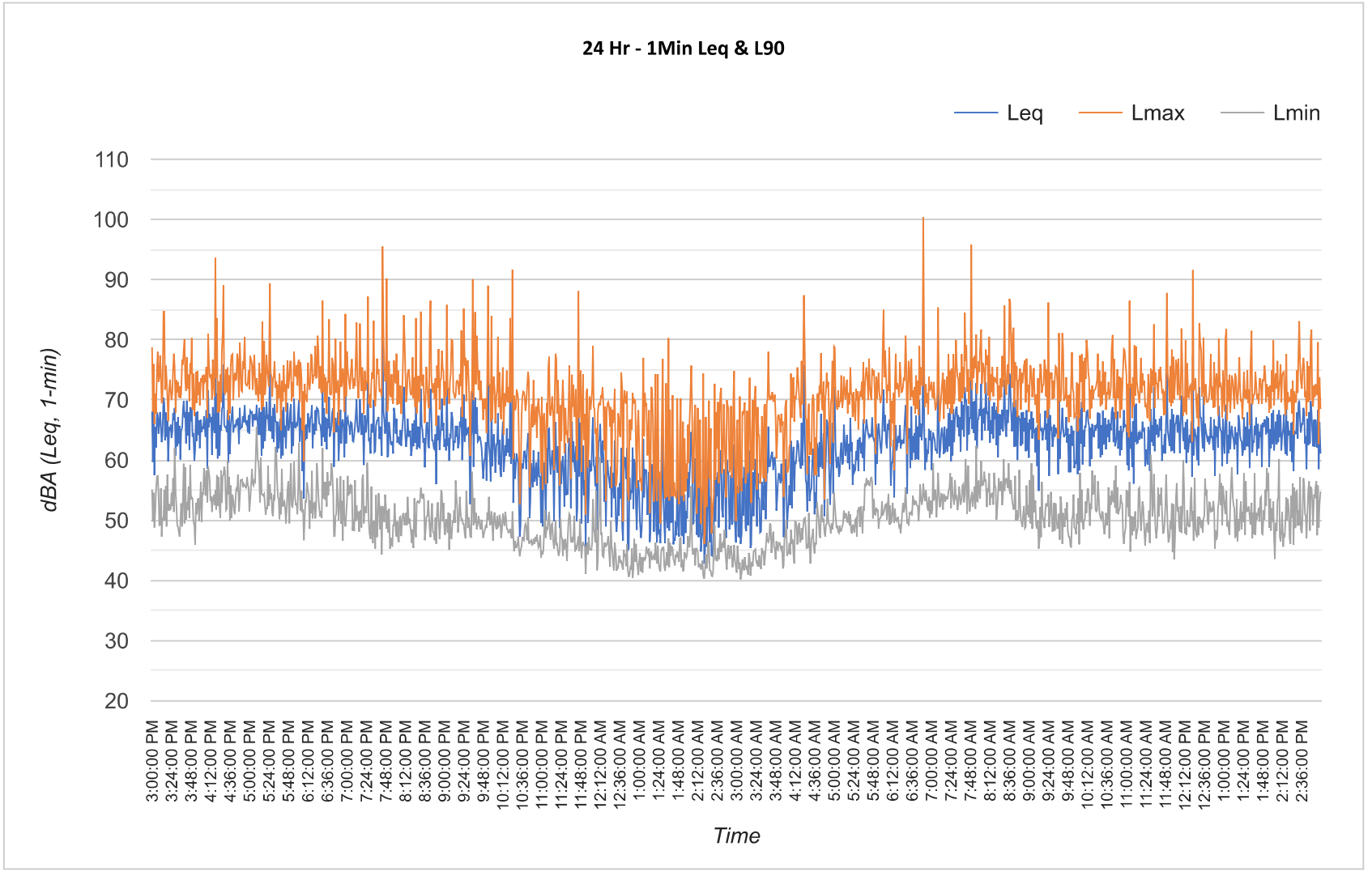
| | | | | | |
|---|---|---|---|---|---|
| **Project Name:** | Fontana SB2 Planning Grant Award | **Site Topo:** | Flat | **Day:** 1 of 2 | |
| **Site Address/Location:** | 16700 Foothill | **Meteorological Cond.:** | Clear | **Noise Source(s) w/ Distance:** | |
| **Site Id:** | LT1 | **Ground Type:** | Hard | 40' from Juniper Ave | |




MD ACOUSTICS

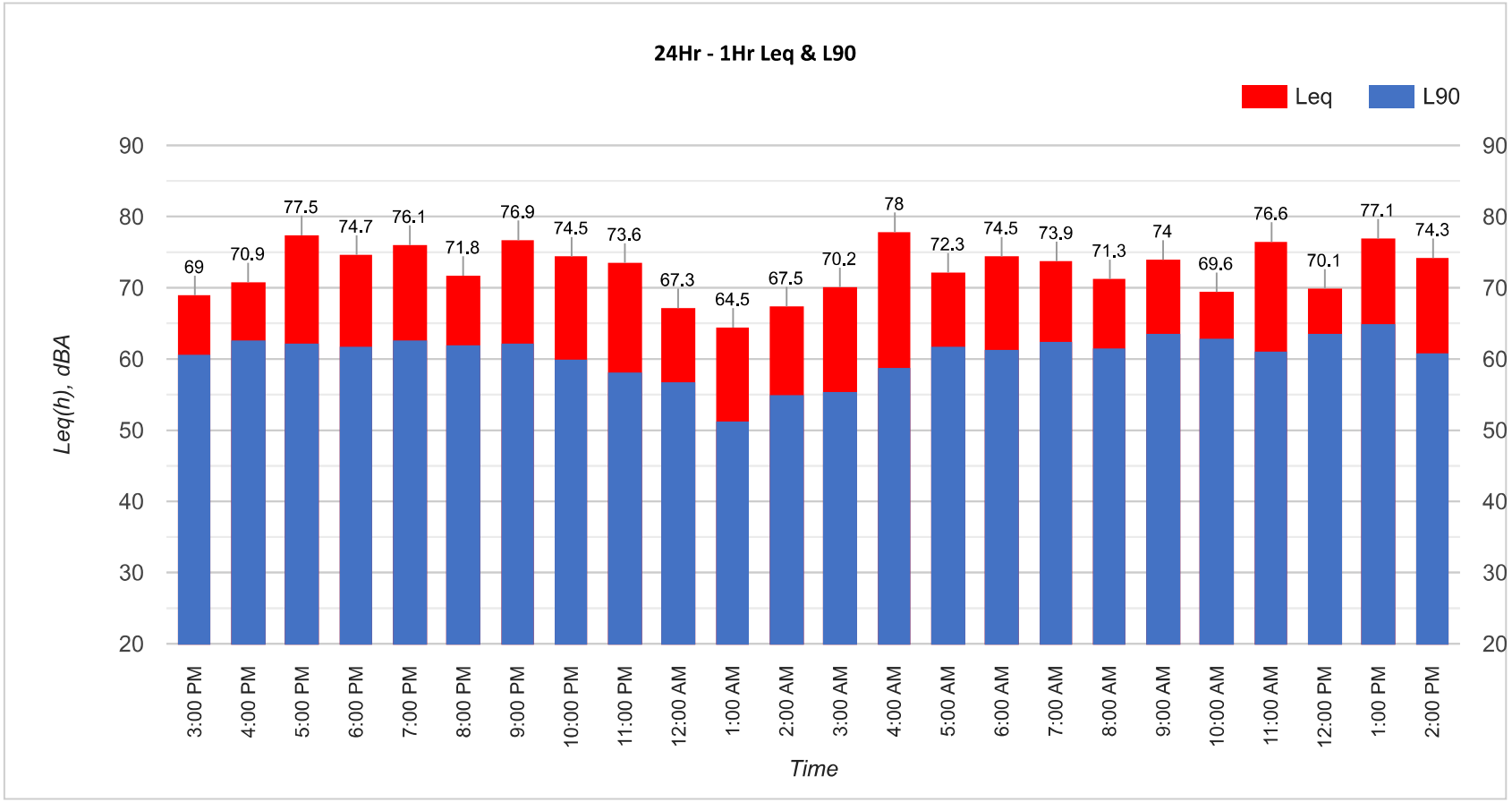
**24-Hour Continuous Noise Measurement Datasheet - Cont.**

| | | | | | |
|---|---|---|---|---|---|
| **Project Name:** | Fontana SB2 Planning Grant Award | **Site Topo:** | Flat | **Day:** 1 of 2 | |
| **Site Address/Location:** | 16700 Foothill | **Meteorological Cond.:** | Clear | **Noise Source(s) w/ Distance:** | |
| **Site Id:** | LT1 | **Ground Type:** | Hard | 40' from Juniper Ave | |



**24-Hour Continuous Noise Measurement Datasheet - Cont.**

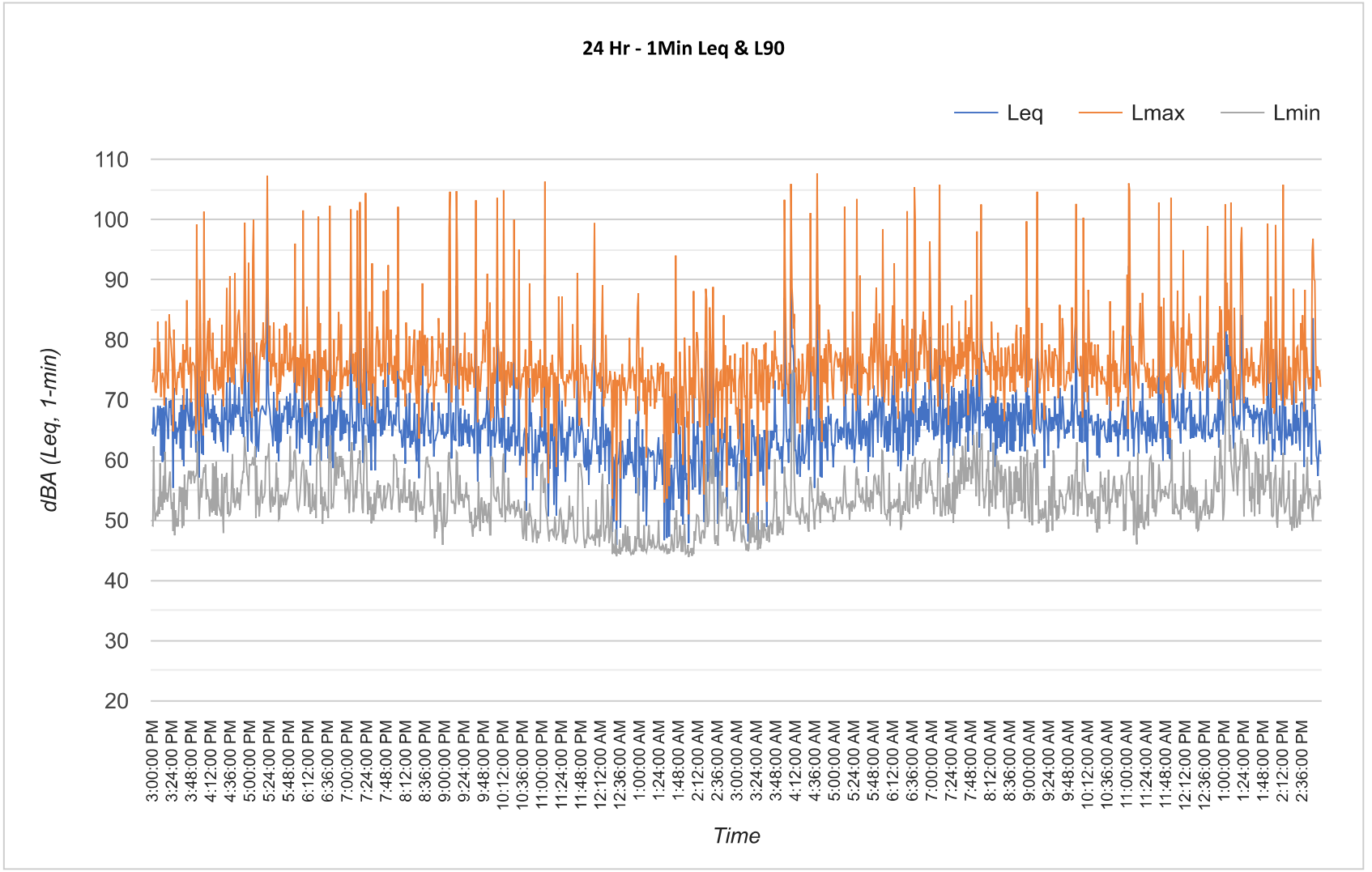
| | | | | | |
|---|---|---|---|---|---|
| **Project Name:** | Fontana SB2 Planning Grant Award | **Site Topo:** | Flat | **Day:** 1 of 2 | |
| **Site Address/Location:** | 16700 Foothill | **Meteorological Cond.:** | Clear | **Noise Source(s) w/ Distance:** | |
| **Site Id:** | LT2 | **Ground Type:** | Hard | 100' from Railway | |




MD ACOUSTICS

**24-Hour Continuous Noise Measurement Datasheet - Cont.**

| | | | | | |
|---|---|---|---|---|---|
| **Project Name:** | Fontana SB2 Planning Grant Award | **Site Topo:** | Flat | **Day:** 1 of 2 | |
| **Site Address/Location:** | 16700 Foothill | **Meteorological Cond.:** | Clear | **Noise Source(s) w/ Distance:** | |
| **Site Id:** | LT2 | **Ground Type:** | Hard | 100' from Railway | |



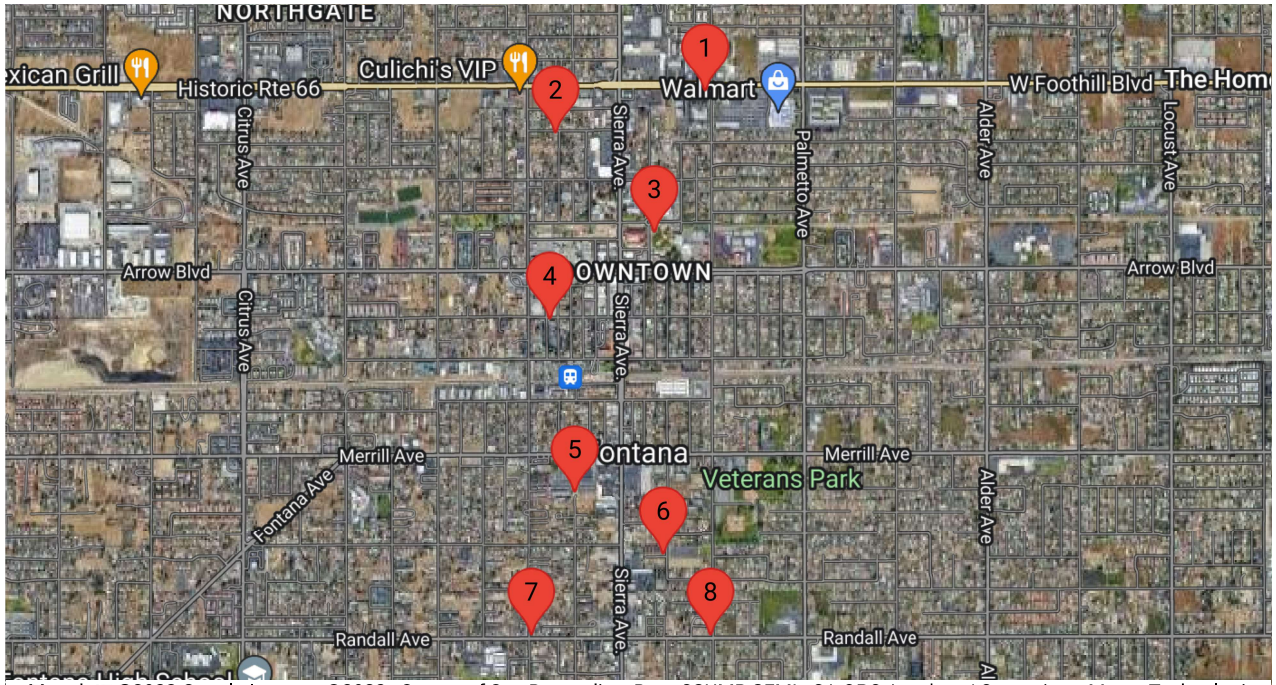
**10-Minute Continuous Noise Measurement Datasheet**

| | |
|---|---|
| **Project Name:** | Fontana SB2 Planning Grant Award |
| **Project: #/Name:** | 0462-2020-022 |
| **Site Address/Location:** | Fontana - Multiple Locations |
| **Date:** | 12/08/2022 |
| **Field Tech/Engineer:** | Dennis Jordan / Claire Pincock / Jason Schuyler |

**Site Observations:**

57° to 60°,winds 5 to 10 mph, sunny and clear, light to moderate traffic but constant.

| | | | |
|---|---|---|---|
| **Sound Meter:** | XL2, NTI | **SN:** | A2A-05967-E0 |
| **Settings:** | A-weighted, slow, 1-sec, 10-minute interval | | |
| **Site Id:** | ST-1, ST-2, ST-3, ST-4, ST-5, ST-6, ST-7, ST-8 | | |




MD ACOUSTICS

**10-Minute Continuous Noise Measurement Datasheet - Cont.**

**Project Name:** Fontana SB2 Planning Grant Award

**Site Address/Location:** Fontana - Multiple Locations

**Site Id:** ST-1, ST-2, ST-3, ST-4, ST-5, ST-6, ST-7, ST-8

Figure 1: ST1 17095 Foothill Blvd

Figure 2: ST2 8212 Bennett Ave

Figure 3: ST-3 17004 Arrow Blvd

**10-Minute Continuous Noise Measurement Datasheet - Cont.**

**Project Name:** Fontana SB2 Planning Grant Award

**Site Address/Location:** Fontana - Multiple Locations

**Site Id:** ST-1, ST-2, ST-3, ST-4, ST-5, ST-6, ST-7, ST-8

Figure 4: ST-4 16725 Valencia Ave


Figure 5: ST-5 8999 Olive St

Figure 6: ST-6 9100 Acaia Ave

**10-Minute Continuous Noise Measurement Datasheet - Cont.**

**Project Name:** Fontana SB2 Planning Grant Award

**Site Address/Location:** Fontana - Multiple Locations

**Site Id:** ST-1, ST-2, ST-3, ST-4, ST-5, ST-6, ST-7, ST-8

Figure 7: ST-7 9289 Juniper Ave

Figure 8: ST-8 17110 Randall Ave

**10-Minute Continuous Noise Measurement Datasheet - Cont.**

**Project Name:** Fontana SB2 Planning Grant Award

**Site Address/Location:** Fontana - Multiple Locations

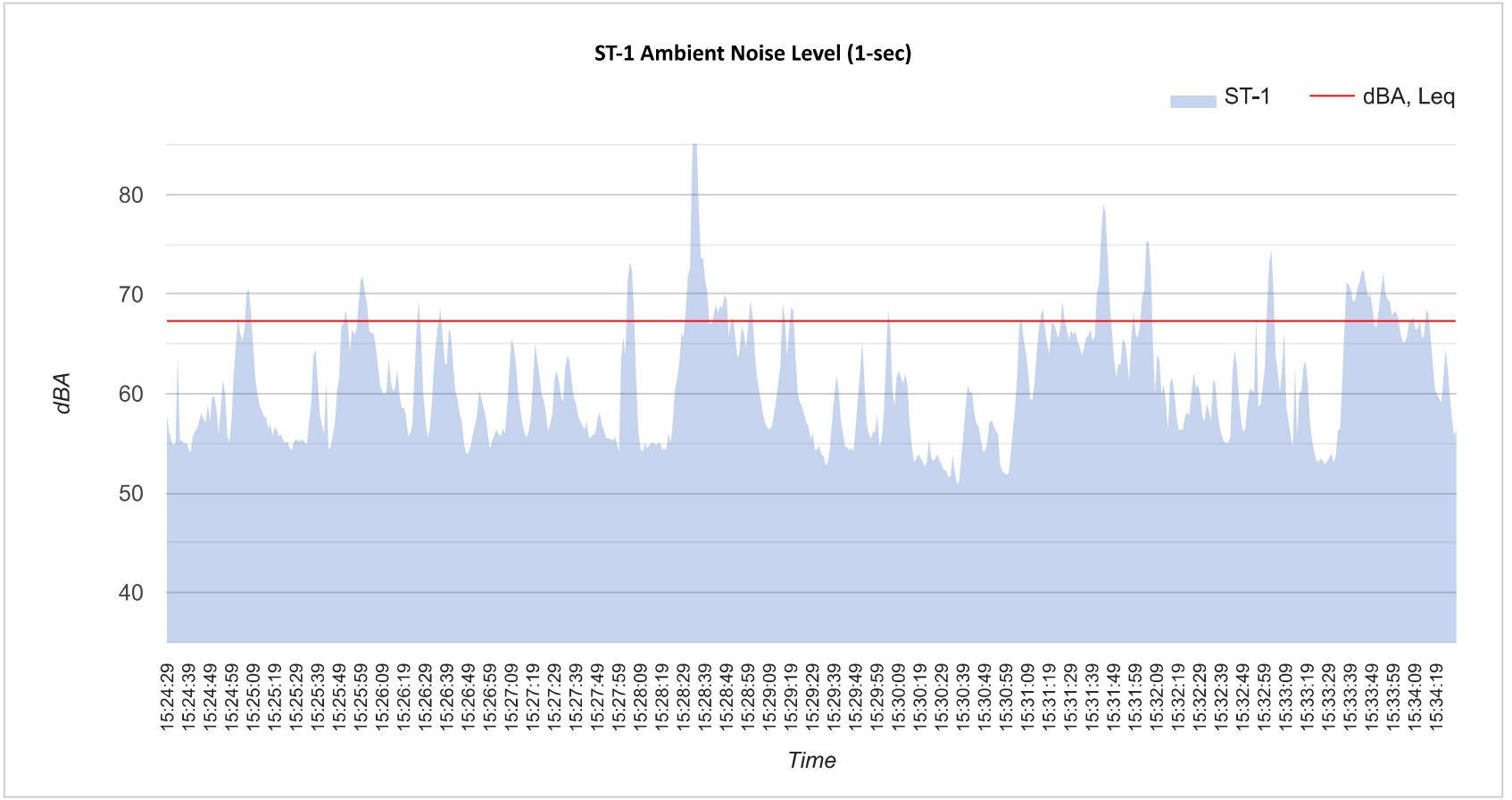
**Site Id:** ST-1, ST-2, ST-3, ST-4, ST-5, ST-6, ST-7, ST-8

Table 1: Baseline Noise Measurement Summary

| Location | Start | Stop | Leq | Lmax | Lmin | L2 | L8 | L25 | L50 | L90 |
|---|---|---|---|---|---|---|---|---|---|---|
| ST-1 | 3:24 PM | 3:34 PM | 67.3 | 87.6 | 51.2 | 73.6 | 69.4 | 65.6 | 60 | 54.5 |
| ST-2 | 3:51 PM | 4:01 PM | 69.3 | 89.0 | 44.7 | 79 | 70.6 | 61.6 | 54.3 | 46.7 |
| ST-3 | 11:55 AM | 12:05 PM | 56.3 | 64.6 | 49.8 | 63.4 | 61 | 56.1 | 54 | 51.3 |
| ST-4 | 2:22 PM | 2:32 PM | 58.5 | 80.7 | 44.0 | 63.3 | 60.3 | 55.2 | 51.2 | 46.8 |
| ST-5 | 2:03 PM | 2:13 PM | 51.3 | 69.9 | 43.9 | 56.4 | 53.6 | 51.3 | 49.4 | 45.9 |
| ST-6 | 12:33 PM | 12:43 PM | 52.2 | 74.7 | 38.8 | 57.2 | 50.5 | 44.9 | 42.6 | 40.3 |
| ST-7 | 1:35 PM | 1:45 PM | 71.2 | 89.6 | 51.4 | 81 | 72 | 68.1 | 64.6 | 56.3 |
| ST-8 | 1:09 PM | 1:19 PM | 67.7 | 88.6 | 47.4 | 74.5 | 69.1 | 65 | 62 | 54.3 |

**10-Minute Continuous Noise Measurement Datasheet - Cont.**

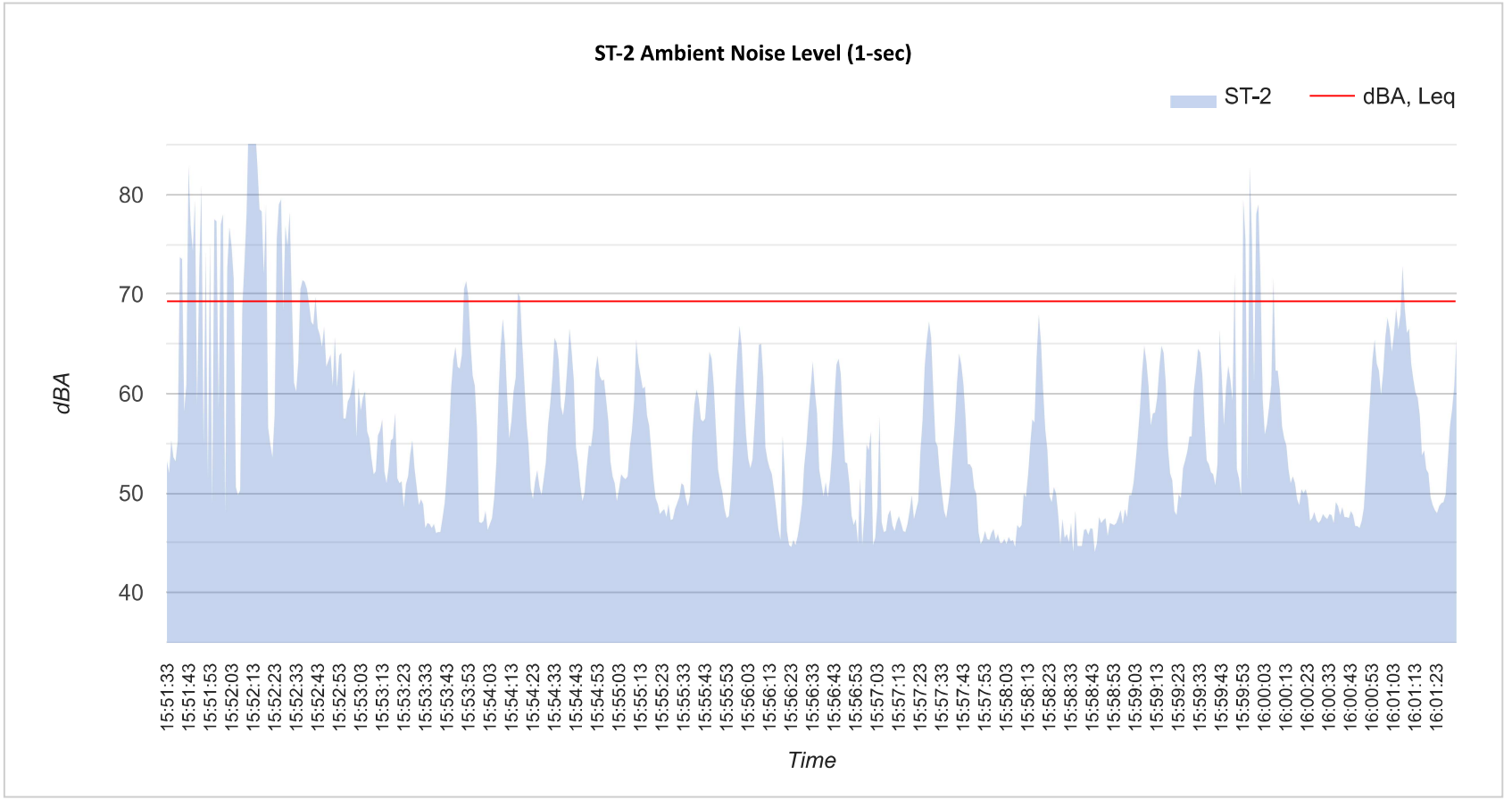
| | | | | | |
|---|---|---|---|---|---|
| **Project Name:** | Fontana SB2 Planning Grant Award | **Site Topo:** | Buildings 1-2 stories tall | **Noise Source(s) w/ Distance:** | |
| **Site Address/Location:** | Fontana - Multiple Locations | **Meteorological Cond.:** | 61F winds 1-3Mph | residential noise | |
| **Site Id:** | ST-1 | **Ground Type:** | buildings and asphalt | | |




MD ACOUSTICS

**10-Minute Continuous Noise Measurement Datasheet - Cont.**

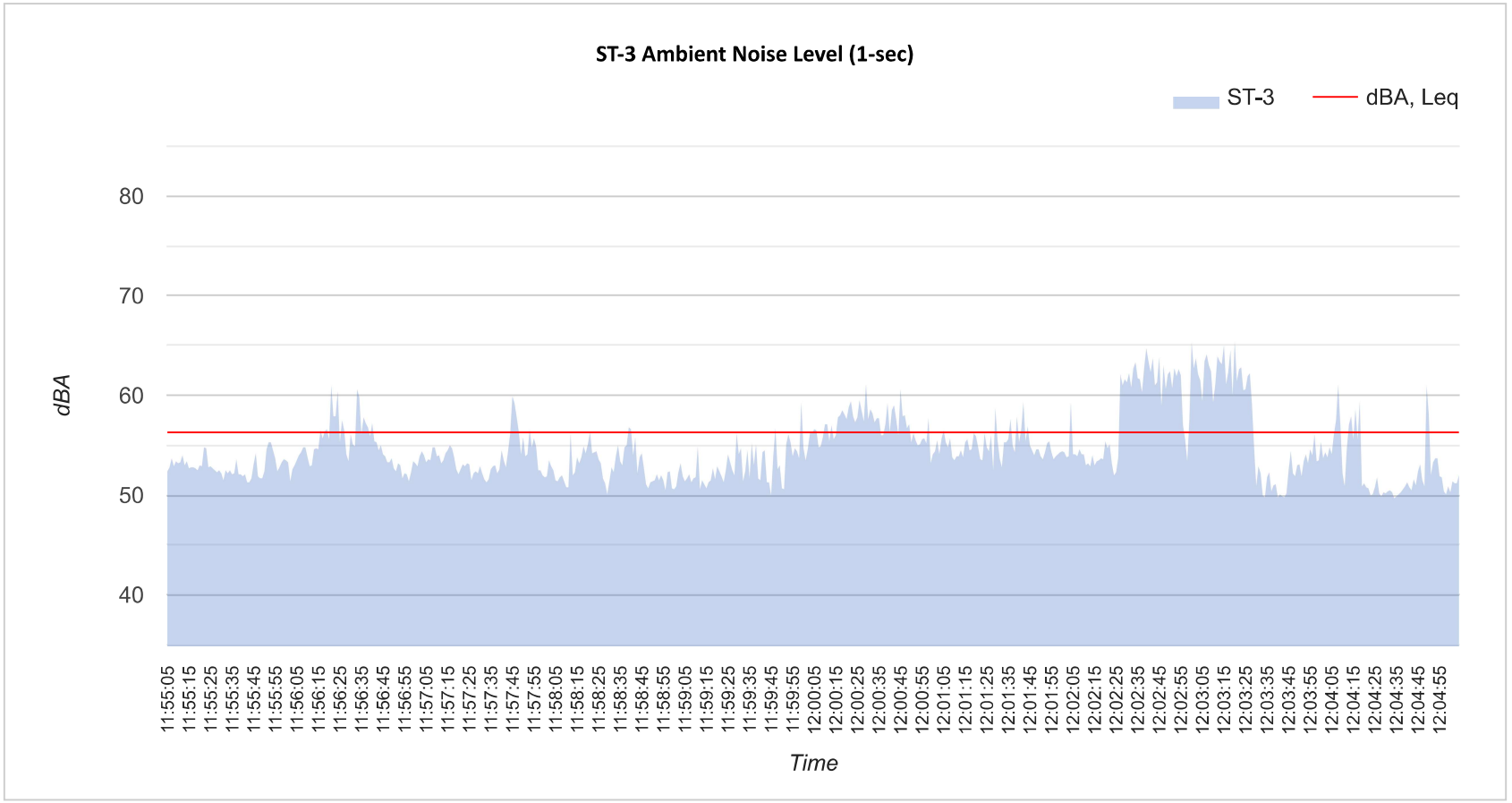
| | | | | | |
|---|---|---|---|---|---|
| **Project Name:** | Fontana SB2 Planning Grant Award | **Site Topo:** | Buildings 1-2 stories tall | **Noise Source(s) w/ Distance:** | |
| **Site Address/Location:** | Fontana - Multiple Locations | **Meteorological Cond.:** | 61F winds 1-3Mph | road noise and residential noise | |
| **Site Id:** | ST-2 | **Ground Type:** | buildings and asvault | | |




MD ACOUSTICS

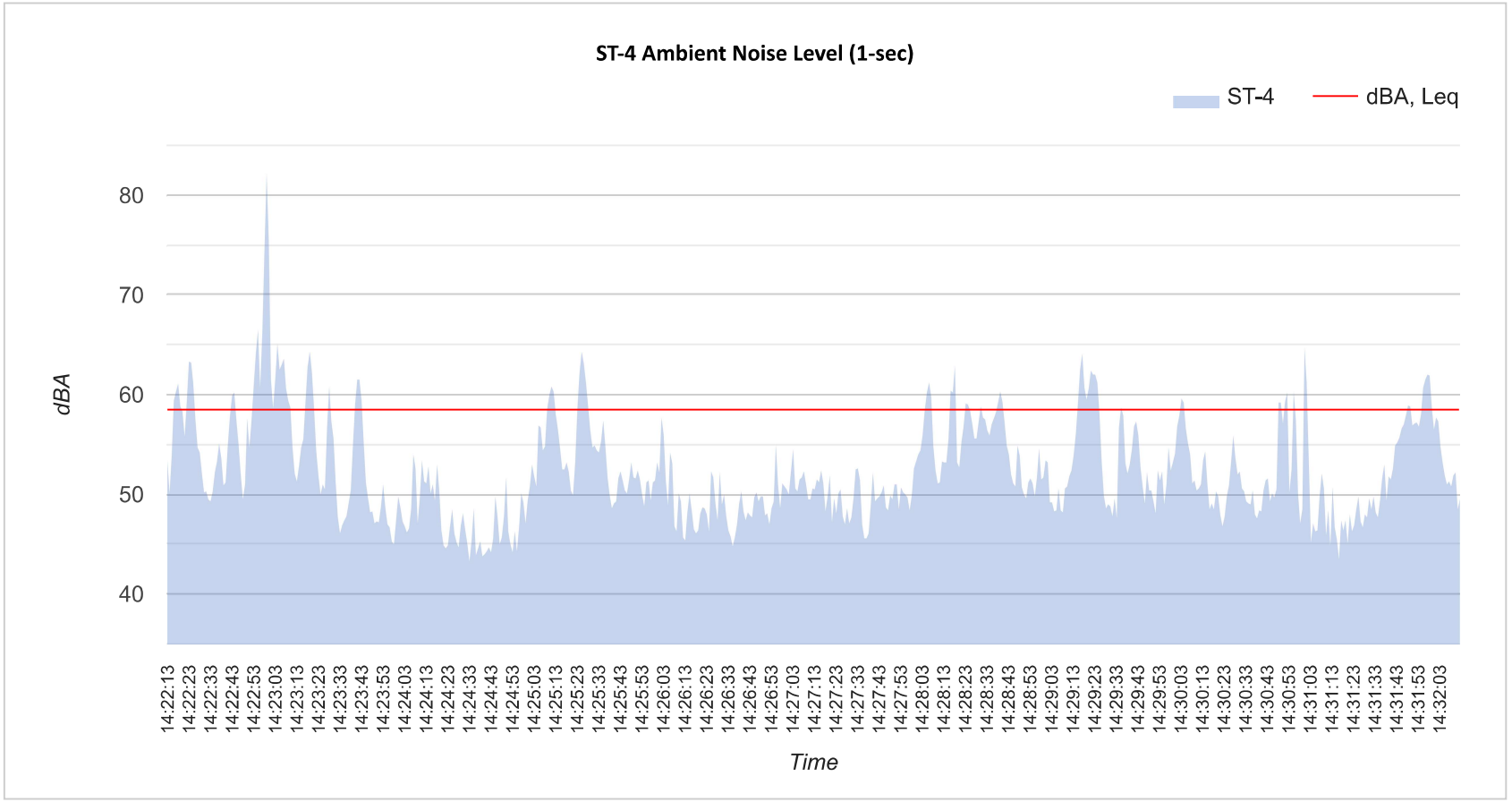
## 10-Minute Continuous Noise Measurement Datasheet - Cont.

| | | | | | |
|---|---|---|---|---|---|
| **Project Name:** | Fontana SB2 Planning Grant Award | **Site Topo:** | Buildings 1 to 2 stories tall | **Noise Source(s) w/ Distance:** | |
| **Site Address/Location:** | Fontana - Multiple Locations | **Meteorological Cond.:** | 57° to 60°, winds 5-10 mph, sunny and clear | Road noise and Tower clock noise on the hour | |
| **Site Id:** | ST-3 | **Ground Type:** | Buildings, Cement, Asphalt, Dirt and Vegetation | | |



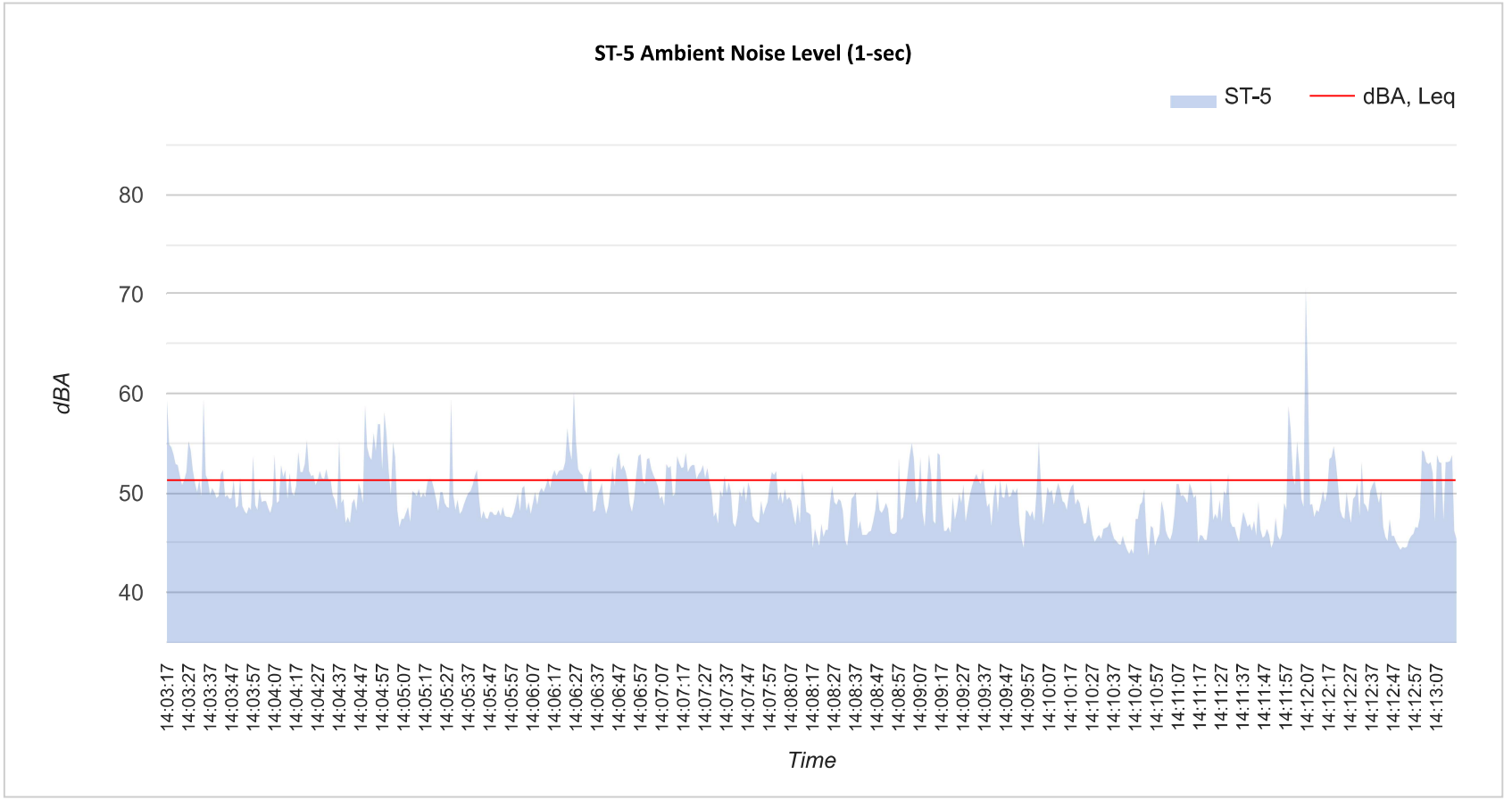
**10-Minute Continuous Noise Measurement Datasheet - Cont.**

| | | | | | |
|---|---|---|---|---|---|
| **Project Name:** | Fontana SB2 Planning Grant Award | **Site Topo:** | Buildings 1 to 2 stories tall | **Noise Source(s) w/ Distance:** | |
| **Site Address/Location:** | Fontana - Multiple Locations | **Meteorological Cond.:** | 57° to 60°, winds 5-10 mph, sunny and clear | Road Noise / 20 ft from street | |
| **Site Id:** | ST-4 | **Ground Type:** | Buildings, Cement, Asphalt, Dirt and Vegetation | | |



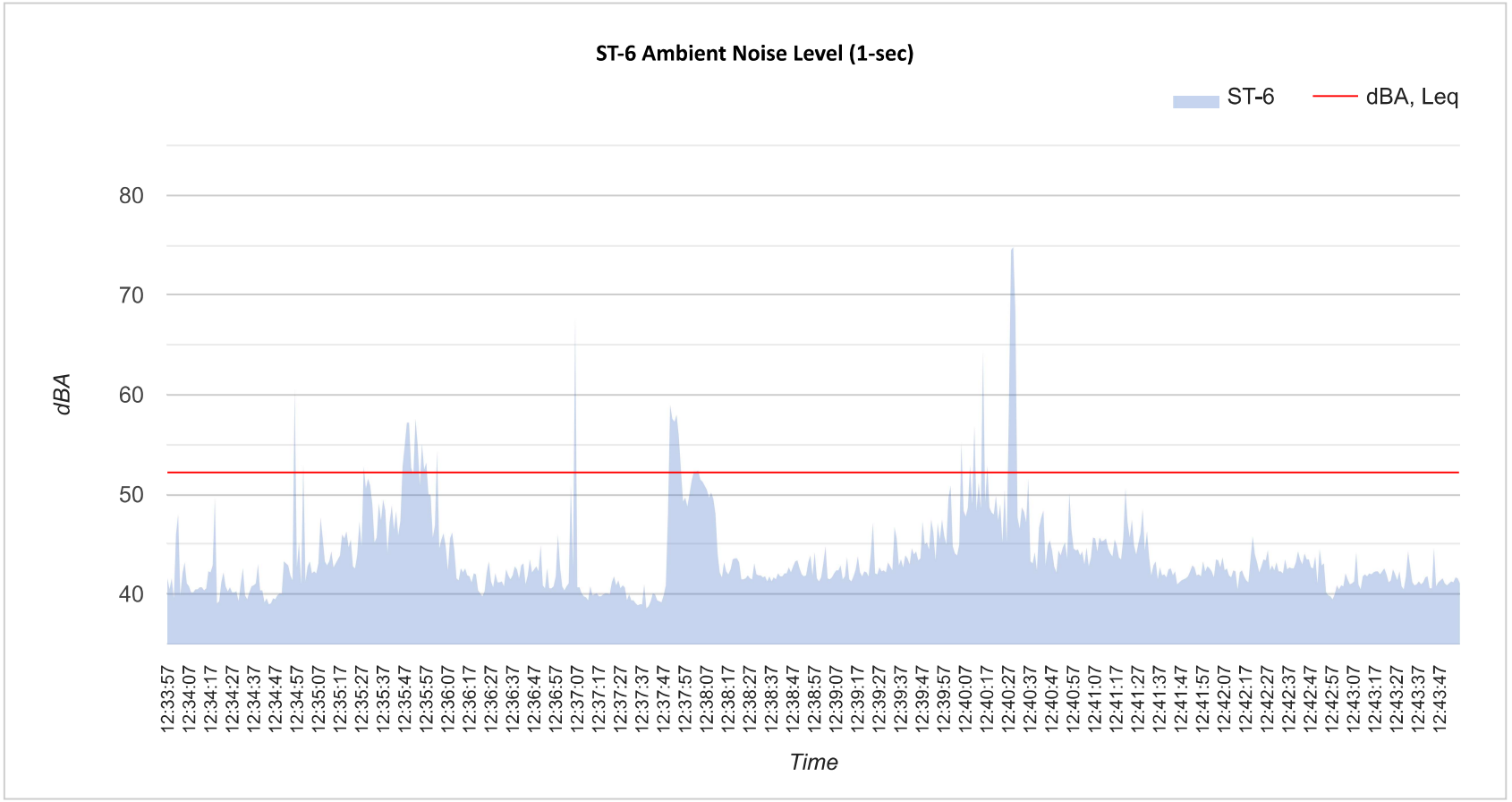
**10-Minute Continuous Noise Measurement Datasheet - Cont.**

| | | | | | |
|---|---|---|---|---|---|
| **Project Name:** | Fontana SB2 Planning Grant Award | **Site Topo:** | Single/Two story housing | **Noise Source(s) w/ Distance:** | |
| **Site Address/Location:** | Fontana - Multiple Locations | **Meteorological Cond.:** | 57° to 60°, winds 5-10 mph, sunny and clear | Road Noise 9 ft / Construction Noise 148 ft | |
| **Site Id:** | ST-5 | **Ground Type:** | Buildings, Cement, Asphalt, Dirt and Vegetation | | |



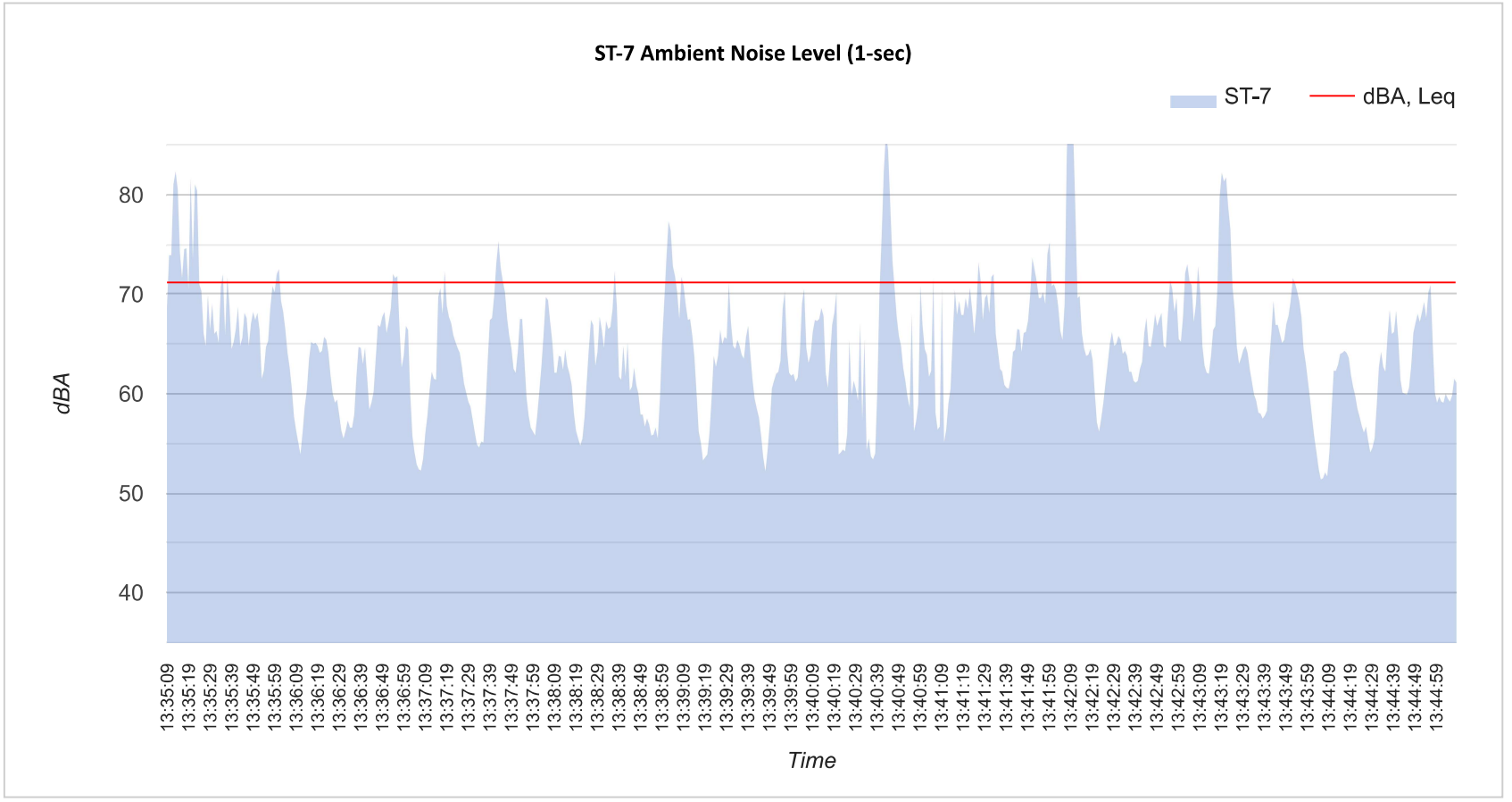
**10-Minute Continuous Noise Measurement Datasheet - Cont.**

| | | | | | |
|---|---|---|---|---|---|
| **Project Name:** | Fontana SB2 Planning Grant Award | **Site Topo:** | Single/Two story housing | **Noise Source(s) w/ Distance:** | |
| **Site Address/Location:** | Fontana - Multiple Locations | **Meteorological Cond.:** | 57° to 60°, winds 5-10 mph, sunny and clear | Road Noise 25 ft / Siren in distance | |
| **Site Id:** | ST-6 | **Ground Type:** | Buildings, Cement, Asphalt, Dirt and Vegetation | | |



## 10-Minute Continuous Noise Measurement Datasheet - Cont.

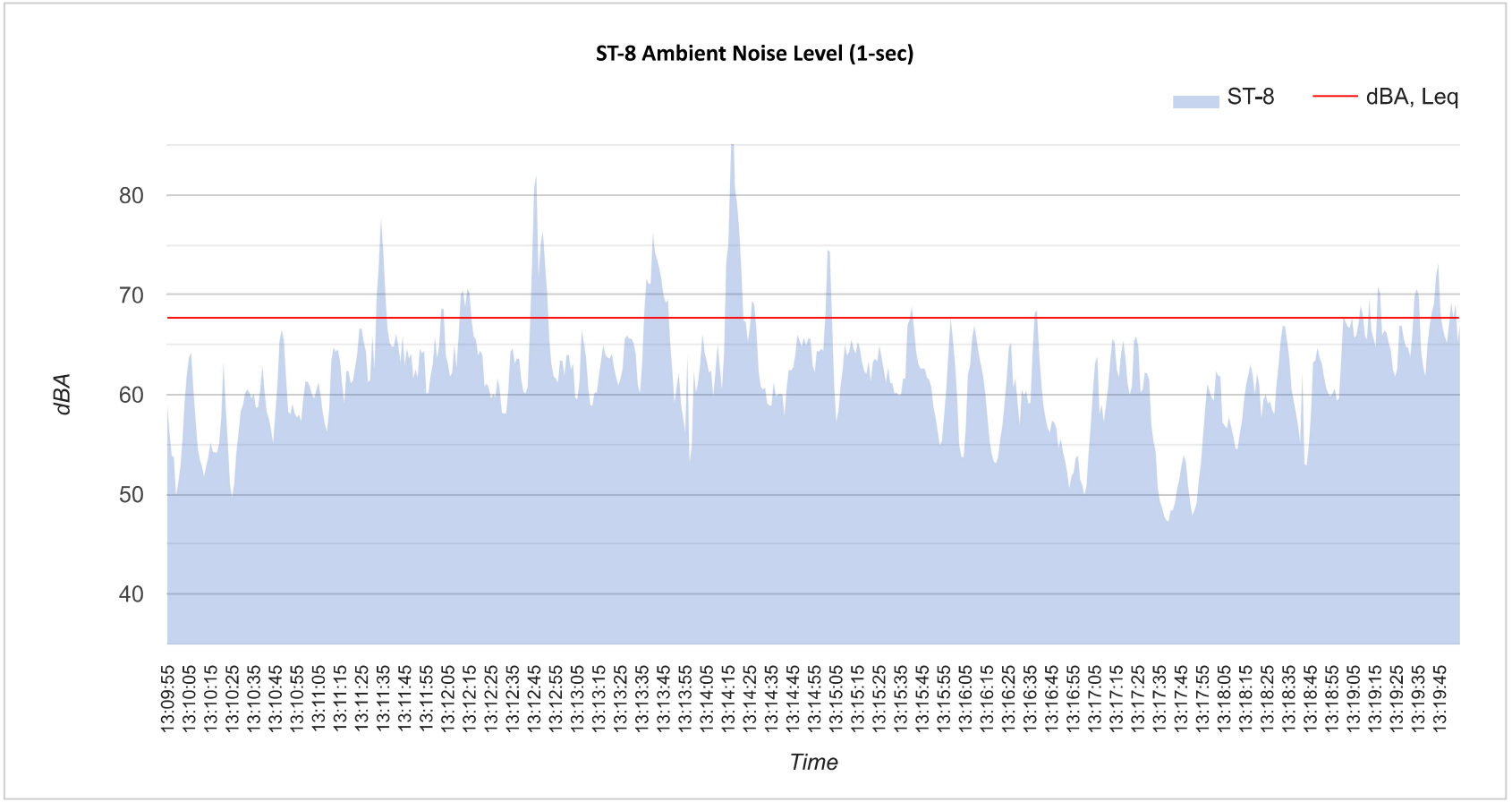
| | | | | | |
|---|---|---|---|---|---|
| **Project Name:** | Fontana SB2 Planning Grant Award | **Site Topo:** | Buildings/Housing 1 to 2 stories | **Noise Source(s) w/ Distance:** | |
| **Site Address/Location:** | Fontana - Multiple Locations | **Meteorological Cond.:** | 57° to 60°, winds 5-10 mph, sunny and clear | Road Noise 7 ft / Trucks and loud vehicles | |
| **Site Id:** | ST-7 | **Ground Type:** | Buildings, Cement, Asphalt, Dirt and Vegetation | | |




MD ACOUSTICS

**10-Minute Continuous Noise Measurement Datasheet - Cont.**

| | | | | |
|---|---|---|---|---|
| **Project Name:** | Fontana SB2 Planning Grant Award | **Site Topo:** | Single/Two story housing | **Noise Source(s) w/ Distance:** |
| **Site Address/Location:** | Fontana - Multiple Locations | **Meteorological Cond.:** | 57° to 60°, winds 5-10 mph, sunny and clear | Road Noise 12 ft |
| **Site Id:** | ST-8 | **Ground Type:** | Buildings, Cement, Asphalt, Dirt and Vegetation | |




MD ACOUSTICS

**Appendix C:**
FHWA Roadway Noise Worksheets

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Wheeler Blvd
SEGMENT Valencia to Orange
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 400 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 24 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 40 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 48.6 | - - |
| MEDIUM TRUCKS= | 4.00 | 48.5 | - - |
| HEAVY TRUCKS = | 8.01 | 48.6 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 45.9 | 44.0 | 42.2 | 36.2 | 44.8 | 45.4 |
| MEDIUM TRUCKS | 40.5 | 39.2 | 32.8 | 29.7 | 39.0 | 39.2 |
| HEAVY TRUCKS | 50.9 | 49.6 | 40.7 | 40.4 | 49.5 | 49.6 |
| | | | | | | |
| VEHICULAR NOISE | 52.4 | 51.0 | 44.8 | 42.1 | 51.0 | **51.3** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 1 | 2 | 7 | 21 |
| LDN | 1 | 2 | 6 | 20 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Juniper to Rosena
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 13,667 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 80 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,367 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 30.1 | - - |
| MEDIUM TRUCKS= | 4.00 | 30.0 | - - |
| HEAVY TRUCKS = | 8.01 | 30.2 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 67.5 | 65.7 | 63.8 | 57.8 | 66.4 | 67.0 |
| MEDIUM TRUCKS | 60.2 | 58.9 | 52.5 | 49.5 | 58.7 | 59.0 |
| HEAVY TRUCKS | 69.7 | 68.4 | 59.4 | 59.2 | 68.2 | 68.4 |
| | | | | | | |
| VEHICULAR NOISE | 72.0 | 70.5 | 65.4 | 61.8 | 70.7 | **71.0** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | 64 | 201 | 636 | 2011 |
| LDN | 59 | 186 | 589 | 1864 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Wheeler Blvd
SEGMENT Arrow to Valencia
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 874 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 24 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 87 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 48.6 | - - |
| MEDIUM TRUCKS= | 4.00 | 48.5 | - - |
| HEAVY TRUCKS = | 8.01 | 48.6 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 49.3 | 47.4 | 45.6 | 39.6 | 48.2 | 48.8 |
| MEDIUM TRUCKS | 43.9 | 42.5 | 36.2 | 33.1 | 42.4 | 42.6 |
| HEAVY TRUCKS | 54.3 | 53.0 | 44.1 | 43.8 | 52.9 | 53.0 |
| | | | | | | |
| VEHICULAR NOISE | 55.8 | 54.4 | 48.2 | 45.5 | 54.4 | **54.7** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 1 | 5 | 15 | 47 |
| LDN | 1 | 4 | 14 | 44 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Valencia Blvd
SEGMENT Juniper to Sierra
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 1,426 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 28 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 143 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 48.1 | - - |
| MEDIUM TRUCKS= | 4.00 | 48.0 | - - |
| HEAVY TRUCKS = | 8.01 | 48.1 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 51.5 | 49.6 | 47.8 | 41.8 | 50.4 | 51.0 |
| MEDIUM TRUCKS | 46.1 | 44.7 | 38.4 | 35.3 | 44.5 | 44.8 |
| HEAVY TRUCKS | 56.5 | 55.2 | 46.2 | 46.0 | 55.0 | 55.2 |
| | | | | | | |
| VEHICULAR NOISE | 58.0 | 56.5 | 50.4 | 47.6 | 56.6 | **56.9** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 2 | 8 | 24 | 77 |
| LDN | 2 | 7 | 23 | 72 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Rosena to Nuevo
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 10,800 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 70 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,080 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 35.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 35.7 | - - |
| HEAVY TRUCKS = | 8.01 | 35.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 65.8 | 63.9 | 62.0 | 56.1 | 64.7 | 65.3 |
| MEDIUM TRUCKS | 58.5 | 57.1 | 50.7 | 47.7 | 56.9 | 57.2 |
| HEAVY TRUCKS | 67.9 | 66.6 | 57.6 | 57.4 | 66.4 | 66.6 |
| | | | | | | |
| VEHICULAR NOISE | 70.3 | 68.8 | 63.6 | 60.0 | 68.9 | **69.3** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 42 | 134 | 423 | 1337 |
| LDN | 39 | 124 | 392 | 1239 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Nuevo to Sierra
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 14,076 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 66 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,408 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 37.7 | - - |
| MEDIUM TRUCKS= | 4.00 | 37.6 | - - |
| HEAVY TRUCKS = | 8.01 | 37.7 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 66.7 | 64.8 | 63.0 | 57.0 | 65.6 | 66.2 |
| MEDIUM TRUCKS | 59.4 | 58.0 | 51.6 | 48.6 | 57.8 | 58.1 |
| HEAVY TRUCKS | 68.8 | 67.5 | 58.6 | 58.3 | 67.4 | 67.5 |
| | | | | | | |
| VEHICULAR NOISE | 71.2 | 69.7 | 64.5 | 61.0 | 69.9 | **70.2** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 52 | 166 | 524 | 1657 |
| LDN | 49 | 154 | 486 | 1536 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Sierra to Wheeler
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 13,665 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 66 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,367 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 37.7 | - - |
| MEDIUM TRUCKS= | 4.00 | 37.6 | - - |
| HEAVY TRUCKS = | 8.01 | 37.7 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 66.6 | 64.7 | 62.8 | 56.9 | 65.5 | 66.1 |
| MEDIUM TRUCKS | 59.3 | 57.9 | 51.5 | 48.5 | 57.7 | 58.0 |
| HEAVY TRUCKS | 68.7 | 67.4 | 58.4 | 58.2 | 67.2 | 67.4 |
| | | | | | | |
| VEHICULAR NOISE | 71.1 | 69.6 | 64.4 | 60.9 | 69.7 | **70.1** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 51 | 161 | 509 | 1609 |
| LDN | 47 | 149 | 471 | 1491 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Wheeler to Emerald
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 10,800 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 70 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,080 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 35.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 35.7 | - - |
| HEAVY TRUCKS = | 8.01 | 35.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 65.8 | 63.9 | 62.0 | 56.1 | 64.7 | 65.3 |
| MEDIUM TRUCKS | 58.5 | 57.1 | 50.7 | 47.7 | 56.9 | 57.2 |
| HEAVY TRUCKS | 67.9 | 66.6 | 57.6 | 57.4 | 66.4 | 66.6 |
| | | | | | | |
| VEHICULAR NOISE | 70.3 | 68.8 | 63.6 | 60.0 | 68.9 | **69.3** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 42 | 134 | 423 | 1337 |
| LDN | 39 | 124 | 392 | 1239 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Emerald to Mango
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 10,800 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 70 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,080 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 35.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 35.7 | - - |
| HEAVY TRUCKS = | 8.01 | 35.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 65.8 | 63.9 | 62.0 | 56.1 | 64.7 | 65.3 |
| MEDIUM TRUCKS | 58.5 | 57.1 | 50.7 | 47.7 | 56.9 | 57.2 |
| HEAVY TRUCKS | 67.9 | 66.6 | 57.6 | 57.4 | 66.4 | 66.6 |
| | | | | | | |
| VEHICULAR NOISE | 70.3 | 68.8 | 63.6 | 60.0 | 68.9 | **69.3** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 42 | 134 | 423 | 1337 |
| LDN | 39 | 124 | 392 | 1239 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Ceres Ave
SEGMENT Nuevo to Sierra
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 1,894 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 30 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 189 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 47.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 47.7 | - - |
| HEAVY TRUCKS = | 8.01 | 47.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 52.8 | 50.9 | 49.0 | 43.0 | 51.7 | 52.3 |
| MEDIUM TRUCKS | 47.4 | 46.0 | 39.6 | 36.6 | 45.8 | 46.1 |
| HEAVY TRUCKS | 57.7 | 56.4 | 47.5 | 47.2 | 56.3 | 56.4 |
| | | | | | | |
| VEHICULAR NOISE | 59.2 | 57.8 | 51.6 | 48.9 | 57.9 | **58.1** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 3 | 10 | 32 | 103 |
| LDN | 3 | 10 | 31 | 96 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Foothill Blvd
SEGMENT Juniper to Sierra
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 21,370 |
| SPEED = | 45 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 50 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,137 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 43.4 | - - |
| MEDIUM TRUCKS= | 4.00 | 43.3 | - - |
| HEAVY TRUCKS = | 8.01 | 43.4 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 71.0 | 69.2 | 67.3 | 61.3 | 70.0 | 70.5 |
| MEDIUM TRUCKS | 62.3 | 60.9 | 54.5 | 51.5 | 60.7 | 61.0 |
| HEAVY TRUCKS | 71.0 | 69.7 | 60.8 | 60.5 | 69.6 | 69.7 |
| | | | | | | |
| VEHICULAR NOISE | 74.3 | 72.8 | 68.4 | 64.2 | 73.0 | **73.4** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 110 | 348 | 1100 | 3480 |
| LDN | 101 | 319 | 1008 | 3186 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Foothill Blvd
SEGMENT Sierra to Mango
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 17,600 |
| SPEED = | 45 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 60 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,760 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 40.1 | - - |
| MEDIUM TRUCKS= | 4.00 | 40.0 | - - |
| HEAVY TRUCKS = | 8.01 | 40.1 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 70.5 | 68.7 | 66.8 | 60.8 | 69.5 | 70.0 |
| MEDIUM TRUCKS | 61.8 | 60.4 | 54.0 | 51.0 | 60.2 | 60.5 |
| HEAVY TRUCKS | 70.5 | 69.2 | 60.3 | 60.0 | 69.1 | 69.2 |
| | | | | | | |
| VEHICULAR NOISE | 73.8 | 72.3 | 67.9 | 63.7 | 72.5 | **72.9** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | 98 | 310 | 981 | 3101 |
| LDN | 90 | 284 | 898 | 2840 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Juniper Ave
SEGMENT Foothill to Upland
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 11,200 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 42 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,120 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.5 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.4 | - - |
| HEAVY TRUCKS = | 8.01 | 45.5 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 64.9 | 63.0 | 61.2 | 55.2 | 63.8 | 64.4 |
| MEDIUM TRUCKS | 57.6 | 56.2 | 49.8 | 46.8 | 56.0 | 56.3 |
| HEAVY TRUCKS | 67.0 | 65.7 | 56.8 | 56.5 | 65.6 | 65.7 |
| | | | | | | |
| VEHICULAR NOISE | 69.4 | 67.9 | 62.7 | 59.2 | 68.1 | **68.4** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 35 | 109 | 346 | 1093 |
| LDN | 32 | 101 | 320 | 1012 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Juniper Ave
SEGMENT Upland to Arrow
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 10,000 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 40 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,000 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.9 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.8 | - - |
| HEAVY TRUCKS = | 8.01 | 45.9 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 64.4 | 62.5 | 60.6 | 54.6 | 63.3 | 63.9 |
| MEDIUM TRUCKS | 57.0 | 55.7 | 49.3 | 46.3 | 55.5 | 55.8 |
| HEAVY TRUCKS | 66.5 | 65.2 | 56.2 | 56.0 | 65.0 | 65.2 |
| | | | | | | |
| VEHICULAR NOISE | 68.8 | 67.3 | 62.2 | 58.6 | 67.5 | **67.9** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 31 | 97 | 305 | 966 |
| LDN | 28 | 90 | 283 | 895 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Juniper Ave
SEGMENT Arrow to Valencia
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 13,323 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 36 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,332 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 46.7 | - - |
| MEDIUM TRUCKS= | 4.00 | 46.7 | - - |
| HEAVY TRUCKS = | 8.01 | 46.7 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 65.5 | 63.6 | 61.8 | 55.8 | 64.4 | 65.0 |
| MEDIUM TRUCKS | 58.2 | 56.8 | 50.5 | 47.4 | 56.7 | 56.9 |
| HEAVY TRUCKS | 67.6 | 66.3 | 57.4 | 57.2 | 66.2 | 66.4 |
| | | | | | | |
| VEHICULAR NOISE | 70.0 | 68.5 | 63.4 | 59.8 | 68.7 | **69.0** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | 40 | 126 | 400 | 1265 |
| LDN | 37 | 117 | 370 | 1172 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Mango Ave
SEGMENT Foothill to Upland
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 8,000 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 40 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 800 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.9 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.8 | - - |
| HEAVY TRUCKS = | 8.01 | 45.9 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 63.4 | 61.5 | 59.7 | 53.7 | 62.3 | 62.9 |
| MEDIUM TRUCKS | 56.1 | 54.7 | 48.3 | 45.3 | 54.5 | 54.8 |
| HEAVY TRUCKS | 65.5 | 64.2 | 55.3 | 55.0 | 64.1 | 64.2 |
| | | | | | | |
| VEHICULAR NOISE | 67.9 | 66.4 | 61.2 | 57.7 | 66.6 | **66.9** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 24 | 77 | 244 | 773 |
| LDN | 23 | 72 | 226 | 716 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Mango Ave
SEGMENT Upland to Valencia
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 10,905 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 38 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,091 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 46.3 | - - |
| MEDIUM TRUCKS= | 4.00 | 46.3 | - - |
| HEAVY TRUCKS = | 8.01 | 46.3 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 64.7 | 62.8 | 61.0 | 55.0 | 63.6 | 64.2 |
| MEDIUM TRUCKS | 57.4 | 56.0 | 49.6 | 46.6 | 55.8 | 56.1 |
| HEAVY TRUCKS | 66.8 | 65.5 | 56.6 | 56.3 | 65.4 | 65.5 |
| | | | | | | |
| VEHICULAR NOISE | 69.2 | 67.7 | 62.5 | 59.0 | 67.9 | **68.2** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 33 | 104 | 330 | 1044 |
| LDN | 31 | 97 | 306 | 967 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Mango Ave
SEGMENT Valencia to Merrill
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 9,300 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 38 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 930 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 46.3 | - - |
| MEDIUM TRUCKS= | 4.00 | 46.3 | - - |
| HEAVY TRUCKS = | 8.01 | 46.3 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 64.0 | 62.1 | 60.3 | 54.3 | 62.9 | 63.5 |
| MEDIUM TRUCKS | 56.7 | 55.3 | 48.9 | 45.9 | 55.1 | 55.4 |
| HEAVY TRUCKS | 66.1 | 64.8 | 55.9 | 55.6 | 64.7 | 64.8 |
| | | | | | | |
| VEHICULAR NOISE | 68.5 | 67.0 | 61.8 | 58.3 | 67.2 | **67.5** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 28 | 89 | 282 | 890 |
| LDN | 26 | 82 | 261 | 825 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Merrill Ave
SEGMENT Juniper to Mango
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 12,843 |
| SPEED = | 40 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 42 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,284 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.5 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.4 | - - |
| HEAVY TRUCKS = | 8.01 | 45.5 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 67.2 | 65.3 | 63.4 | 57.4 | 66.1 | 66.7 |
| MEDIUM TRUCKS | 59.1 | 57.7 | 51.3 | 48.3 | 57.5 | 57.8 |
| HEAVY TRUCKS | 68.1 | 66.8 | 57.9 | 57.7 | 66.7 | 66.8 |
| | | | | | | |
| VEHICULAR NOISE | 71.0 | 69.4 | 64.7 | 60.8 | 69.7 | **70.0** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | 50 | 159 | 504 | 1593 |
| LDN | 46 | 147 | 464 | 1467 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Nuevo Blvd
SEGMENT Arrow to Valencia
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 928 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 18 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 93 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 49.3 | - - |
| MEDIUM TRUCKS= | 4.00 | 49.2 | - - |
| HEAVY TRUCKS = | 8.01 | 49.3 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 49.5 | 47.6 | 45.8 | 39.8 | 48.4 | 49.0 |
| MEDIUM TRUCKS | 44.1 | 42.8 | 36.4 | 33.3 | 42.6 | 42.8 |
| HEAVY TRUCKS | 54.5 | 53.2 | 44.3 | 44.0 | 53.1 | 53.2 |
| | | | | | | |
| VEHICULAR NOISE | 56.0 | 54.6 | 48.4 | 45.7 | 54.6 | **54.9** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 2 | 5 | 15 | 49 |
| LDN | 1 | 5 | 14 | 46 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Nuevo Blvd
SEGMENT Valencia to Orange
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 500 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 18 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 50 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 49.3 | - - |
| MEDIUM TRUCKS= | 4.00 | 49.2 | - - |
| HEAVY TRUCKS = | 8.01 | 49.3 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 51.0 | 49.2 | 47.3 | 41.3 | 49.9 | 50.5 |
| MEDIUM TRUCKS | 43.7 | 42.3 | 36.0 | 32.9 | 42.2 | 42.4 |
| HEAVY TRUCKS | 53.2 | 51.9 | 42.9 | 42.7 | 51.7 | 51.9 |
| | | | | | | |
| VEHICULAR NOISE | 55.5 | 54.0 | 48.9 | 45.3 | 54.2 | **54.5** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 1 | 5 | 14 | 45 |
| LDN | 1 | 4 | 13 | 42 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Orange Blvd
SEGMENT Nuevo to Sierra
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 2,332 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 42 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 233 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.5 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.4 | - - |
| HEAVY TRUCKS = | 8.01 | 45.5 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 58.1 | 56.2 | 54.3 | 48.4 | 57.0 | 57.6 |
| MEDIUM TRUCKS | 50.8 | 49.4 | 43.0 | 40.0 | 49.2 | 49.5 |
| HEAVY TRUCKS | 60.2 | 58.9 | 49.9 | 49.7 | 58.8 | 58.9 |
| | | | | | | |
| VEHICULAR NOISE | 62.6 | 61.1 | 55.9 | 52.4 | 61.2 | **61.6** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 7 | 23 | 72 | 228 |
| LDN | 7 | 21 | 67 | 211 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Orange Blvd
SEGMENT Sierra to Wheeler
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 1,376 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 40 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 138 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.9 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.8 | - - |
| HEAVY TRUCKS = | 8.01 | 45.9 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 55.7 | 53.9 | 52.0 | 46.0 | 54.7 | 55.2 |
| MEDIUM TRUCKS | 48.4 | 47.0 | 40.7 | 37.6 | 46.9 | 47.1 |
| HEAVY TRUCKS | 57.9 | 56.6 | 47.6 | 47.4 | 56.4 | 56.6 |
| | | | | | | |
| VEHICULAR NOISE | 60.2 | 58.7 | 53.6 | 50.0 | 58.9 | **59.2** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 4 | 13 | 42 | 133 |
| LDN | 4 | 12 | 39 | 123 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Randall Ave
SEGMENT Juniper to Mango
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 7,643 |
| SPEED = | 40 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 48 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 764 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 44.0 | - - |
| MEDIUM TRUCKS= | 4.00 | 43.9 | - - |
| HEAVY TRUCKS = | 8.01 | 44.0 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 65.1 | 63.2 | 61.3 | 55.3 | 64.0 | 64.6 |
| MEDIUM TRUCKS | 57.0 | 55.6 | 49.2 | 46.2 | 55.4 | 55.7 |
| HEAVY TRUCKS | 66.0 | 64.7 | 55.8 | 55.5 | 64.6 | 64.7 |
| | | | | | | |
| VEHICULAR NOISE | 68.9 | 67.3 | 62.6 | 58.7 | 67.6 | **67.9** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 31 | 98 | 310 | 981 |
| LDN | 29 | 90 | 286 | 903 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Foothill to Upland
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 21,180 |
| SPEED = | 30 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 50 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,118 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 43.4 | - - |
| MEDIUM TRUCKS= | 4.00 | 43.3 | - - |
| HEAVY TRUCKS = | 8.01 | 43.4 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 65.9 | 64.1 | 62.2 | 56.2 | 64.8 | 65.4 |
| MEDIUM TRUCKS | 59.5 | 58.1 | 51.8 | 48.7 | 57.9 | 58.2 |
| HEAVY TRUCKS | 69.4 | 68.1 | 59.1 | 58.9 | 67.9 | 68.1 |
| | | | | | | |
| VEHICULAR NOISE | 71.3 | 69.8 | 64.2 | 61.0 | 69.9 | **70.2** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 53 | 167 | 529 | 1673 |
| LDN | 49 | 156 | 493 | 1560 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Upland to Arrow
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 15,600 |
| SPEED = | 30 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 38 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,560 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 46.3 | - - |
| MEDIUM TRUCKS= | 4.00 | 46.3 | - - |
| HEAVY TRUCKS = | 8.01 | 46.3 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 64.3 | 62.4 | 60.6 | 54.6 | 63.2 | 63.8 |
| MEDIUM TRUCKS | 57.9 | 56.5 | 50.1 | 47.1 | 56.3 | 56.6 |
| HEAVY TRUCKS | 67.7 | 66.4 | 57.5 | 57.3 | 66.3 | 66.5 |
| | | | | | | |
| VEHICULAR NOISE | 69.7 | 68.2 | 62.6 | 59.4 | 68.3 | **68.6** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 36 | 115 | 365 | 1154 |
| LDN | 34 | 108 | 340 | 1076 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Arrow to Valencia
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 22,594 |
| SPEED = | 30 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 42 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,259 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.5 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.4 | - - |
| HEAVY TRUCKS = | 8.01 | 45.5 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 66.0 | 64.1 | 62.3 | 56.3 | 64.9 | 65.5 |
| MEDIUM TRUCKS | 59.6 | 58.2 | 51.8 | 48.8 | 58.0 | 58.3 |
| HEAVY TRUCKS | 69.4 | 68.1 | 59.2 | 59.0 | 68.0 | 68.2 |
| | | | | | | |
| VEHICULAR NOISE | 71.4 | 69.9 | 64.3 | 61.1 | 70.0 | **70.3** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 54 | 170 | 539 | 1703 |
| LDN | 50 | 159 | 502 | 1589 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Valencia to Orange
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 16,800 |
| SPEED = | 30 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 40 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,680 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.9 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.8 | - - |
| HEAVY TRUCKS = | 8.01 | 45.9 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 64.7 | 62.8 | 61.0 | 55.0 | 63.6 | 64.2 |
| MEDIUM TRUCKS | 58.2 | 56.9 | 50.5 | 47.5 | 56.7 | 57.0 |
| HEAVY TRUCKS | 68.1 | 66.8 | 57.9 | 57.6 | 66.7 | 66.8 |
| | | | | | | |
| VEHICULAR NOISE | 70.0 | 68.6 | 62.9 | 59.8 | 68.7 | **69.0** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 40 | 125 | 397 | 1254 |
| LDN | 37 | 117 | 370 | 1170 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Orange to Merrill
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 21,864 |
| SPEED = | 30 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 60 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,186 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 40.1 | - - |
| MEDIUM TRUCKS= | 4.00 | 40.0 | - - |
| HEAVY TRUCKS = | 8.01 | 40.1 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 66.4 | 64.5 | 62.7 | 56.7 | 65.3 | 65.9 |
| MEDIUM TRUCKS | 60.0 | 58.6 | 52.2 | 49.2 | 58.4 | 58.7 |
| HEAVY TRUCKS | 69.8 | 68.5 | 59.6 | 59.4 | 68.4 | 68.6 |
| | | | | | | |
| VEHICULAR NOISE | 71.8 | 70.3 | 64.7 | 61.5 | 70.4 | **70.7** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | 59 | 187 | 591 | 1868 |
| LDN | 55 | 174 | 551 | 1743 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Merrill to Athol
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 19,000 |
| SPEED = | 40 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 45 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,900 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 44.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 44.7 | - - |
| HEAVY TRUCKS = | 8.01 | 44.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 68.9 | 67.0 | 65.2 | 59.2 | 67.8 | 68.4 |
| MEDIUM TRUCKS | 60.8 | 59.5 | 53.1 | 50.1 | 59.3 | 59.6 |
| HEAVY TRUCKS | 69.9 | 68.6 | 59.7 | 59.4 | 68.5 | 68.6 |
| | | | | | | |
| VEHICULAR NOISE | 72.7 | 71.2 | 66.5 | 62.6 | 71.4 | **71.8** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 76 | 240 | 757 | 2395 |
| LDN | 70 | 221 | 697 | 2206 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Athol to Randall
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 27,582 |
| SPEED = | 40 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 52 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,758 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 42.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 42.7 | - - |
| HEAVY TRUCKS = | 8.01 | 42.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 70.7 | 68.9 | 67.0 | 61.0 | 69.6 | 70.2 |
| MEDIUM TRUCKS | 62.7 | 61.3 | 54.9 | 51.9 | 61.1 | 61.4 |
| HEAVY TRUCKS | 71.7 | 70.4 | 61.5 | 61.2 | 70.3 | 70.4 |
| | | | | | | |
| VEHICULAR NOISE | 74.6 | 73.0 | 68.3 | 64.4 | 73.3 | **73.6** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 115 | 363 | 1149 | 3635 |
| LDN | 106 | 335 | 1058 | 3347 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Valencia Blvd
SEGMENT Sierra to Mango
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Existing

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 1,160 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 28 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 116 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.933 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.049 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 48.1 | - - |
| MEDIUM TRUCKS= | 4.00 | 48.0 | - - |
| HEAVY TRUCKS = | 8.01 | 48.1 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 50.6 | 48.7 | 46.9 | 40.9 | 49.5 | 50.1 |
| MEDIUM TRUCKS | 45.2 | 43.8 | 37.5 | 34.4 | 43.6 | 43.9 |
| HEAVY TRUCKS | 55.6 | 54.3 | 45.3 | 45.1 | 54.1 | 54.3 |
| | | | | | | |
| VEHICULAR NOISE | 57.1 | 55.6 | 49.5 | 46.7 | 55.7 | **56.0** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 2 | 6 | 20 | 62 |
| LDN | 2 | 6 | 19 | 59 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Juniper to Rosena
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 16,483 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 80 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,648 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 30.1 | - - |
| MEDIUM TRUCKS= | 4.00 | 30.0 | - - |
| HEAVY TRUCKS = | 8.01 | 30.2 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 68.4 | 66.5 | 64.7 | 58.7 | 67.3 | 67.9 |
| MEDIUM TRUCKS | 61.0 | 59.7 | 53.3 | 50.3 | 59.5 | 59.8 |
| HEAVY TRUCKS | 68.9 | 67.6 | 58.6 | 58.4 | 67.4 | 67.6 |
| | | | | | | |
| VEHICULAR NOISE | 72.0 | 70.5 | 65.9 | 61.9 | 70.7 | **71.1** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 64 | 204 | 644 | 2037 |
| LDN | 59 | 187 | 592 | 1871 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Arrow to Valencia
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 32,951 |
| SPEED = | 30 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 42 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 3,295 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.5 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.4 | - - |
| HEAVY TRUCKS = | 8.01 | 45.5 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 67.7 | 65.8 | 64.0 | 58.0 | 66.6 | 67.2 |
| MEDIUM TRUCKS | 61.2 | 59.8 | 53.5 | 50.4 | 59.7 | 59.9 |
| HEAVY TRUCKS | 69.5 | 68.2 | 59.2 | 59.0 | 68.0 | 68.2 |
| | | | | | | |
| VEHICULAR NOISE | 72.1 | 70.6 | 65.5 | 61.9 | 70.8 | **71.1** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | 64 | 203 | 643 | 2032 |
| LDN | 59 | 188 | 594 | 1879 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Foothill to Upland
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 33,274 |
| SPEED = | 30 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 50 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 3,327 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 43.4 | - - |
| MEDIUM TRUCKS= | 4.00 | 43.3 | - - |
| HEAVY TRUCKS = | 8.01 | 43.4 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 68.0 | 66.1 | 64.2 | 58.3 | 66.9 | 67.5 |
| MEDIUM TRUCKS | 61.5 | 60.1 | 53.7 | 50.7 | 59.9 | 60.2 |
| HEAVY TRUCKS | 69.7 | 68.4 | 59.5 | 59.2 | 68.3 | 68.4 |
| | | | | | | |
| VEHICULAR NOISE | 72.3 | 70.8 | 65.8 | 62.1 | 71.0 | **71.3** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 68 | 215 | 680 | 2150 |
| LDN | 63 | 199 | 629 | 1988 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Valencia to Orange
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 25,100 |
| SPEED = | 30 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 40 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,510 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.9 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.8 | - - |
| HEAVY TRUCKS = | 8.01 | 45.9 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 66.5 | 64.6 | 62.8 | 56.8 | 65.4 | 66.0 |
| MEDIUM TRUCKS | 60.0 | 58.6 | 52.3 | 49.2 | 58.4 | 58.7 |
| HEAVY TRUCKS | 68.2 | 67.0 | 58.0 | 57.8 | 66.8 | 67.0 |
| | | | | | | |
| VEHICULAR NOISE | 70.8 | 69.3 | 64.3 | 60.6 | 69.5 | **69.9** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 48 | 153 | 485 | 1533 |
| LDN | 45 | 142 | 448 | 1418 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Orange to Merrill
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 34,069 |
| SPEED = | 30 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 60 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 3,407 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 40.1 | - - |
| MEDIUM TRUCKS= | 4.00 | 40.0 | - - |
| HEAVY TRUCKS = | 8.01 | 40.1 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 68.4 | 66.5 | 64.7 | 58.7 | 67.3 | 67.9 |
| MEDIUM TRUCKS | 61.9 | 60.5 | 54.2 | 51.1 | 60.4 | 60.6 |
| HEAVY TRUCKS | 70.2 | 68.9 | 59.9 | 59.7 | 68.7 | 68.9 |
| | | | | | | |
| VEHICULAR NOISE | 72.8 | 71.2 | 66.2 | 62.6 | 71.4 | **71.8** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | 75 | 238 | 753 | 2382 |
| LDN | 70 | 220 | 697 | 2203 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Merrill to Athol
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 26,600 |
| SPEED = | 40 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 45 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,660 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 44.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 44.7 | - - |
| HEAVY TRUCKS = | 8.01 | 44.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 70.5 | 68.6 | 66.7 | 60.7 | 69.4 | 70.0 |
| MEDIUM TRUCKS | 62.3 | 60.9 | 54.6 | 51.5 | 60.7 | 61.0 |
| HEAVY TRUCKS | 69.8 | 68.5 | 59.5 | 59.3 | 68.3 | 68.5 |
| | | | | | | |
| VEHICULAR NOISE | 73.5 | 71.9 | 67.7 | 63.4 | 72.2 | **72.6** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 91 | 288 | 911 | 2881 |
| LDN | 83 | 263 | 831 | 2629 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Athol to Randall
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 37,072 |
| SPEED = | 40 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 52 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 3,707 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 42.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 42.7 | - - |
| HEAVY TRUCKS = | 8.01 | 42.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 72.1 | 70.2 | 68.4 | 62.4 | 71.0 | 71.6 |
| MEDIUM TRUCKS | 63.9 | 62.6 | 56.2 | 53.2 | 62.4 | 62.7 |
| HEAVY TRUCKS | 71.4 | 70.1 | 61.2 | 60.9 | 70.0 | 70.1 |
| | | | | | | |
| VEHICULAR NOISE | 75.1 | 73.5 | 69.3 | 65.0 | 73.8 | **74.2** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 133 | 420 | 1327 | 4197 |
| LDN | 121 | 383 | 1211 | 3830 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Valencia Blvd
SEGMENT Juniper to Sierra
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 3,910 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 28 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 391 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 48.1 | - - |
| MEDIUM TRUCKS= | 4.00 | 48.0 | - - |
| HEAVY TRUCKS = | 8.01 | 48.1 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 55.9 | 54.1 | 52.2 | 46.2 | 54.8 | 55.4 |
| MEDIUM TRUCKS | 50.5 | 49.1 | 42.7 | 39.7 | 48.9 | 49.2 |
| HEAVY TRUCKS | 59.2 | 57.9 | 49.0 | 48.8 | 57.8 | 58.0 |
| | | | | | | |
| VEHICULAR NOISE | 61.3 | 59.8 | 54.2 | 51.0 | 59.9 | **60.2** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 5 | 17 | 53 | 167 |
| LDN | 5 | 16 | 49 | 156 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Valencia Blvd
SEGMENT Sierra to Mango
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 3,644 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 28 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 364 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 48.1 | - - |
| MEDIUM TRUCKS= | 4.00 | 48.0 | - - |
| HEAVY TRUCKS = | 8.01 | 48.1 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 55.6 | 53.8 | 51.9 | 45.9 | 54.5 | 55.1 |
| MEDIUM TRUCKS | 50.2 | 48.8 | 42.4 | 39.4 | 48.6 | 48.9 |
| HEAVY TRUCKS | 58.9 | 57.6 | 48.7 | 48.5 | 57.5 | 57.7 |
| | | | | | | |
| VEHICULAR NOISE | 61.0 | 59.5 | 53.9 | 50.7 | 59.6 | **59.9** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 5 | 16 | 49 | 156 |
| LDN | 5 | 15 | 46 | 145 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Wheeler Blvd
SEGMENT Arrow to Valencia
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 1,311 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 24 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 131 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 48.6 | - - |
| MEDIUM TRUCKS= | 4.00 | 48.5 | - - |
| HEAVY TRUCKS = | 8.01 | 48.6 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 51.2 | 49.3 | 47.4 | 41.4 | 50.1 | 50.7 |
| MEDIUM TRUCKS | 45.7 | 44.3 | 37.9 | 34.9 | 44.1 | 44.4 |
| HEAVY TRUCKS | 54.4 | 53.2 | 44.2 | 44.0 | 53.0 | 53.2 |
| | | | | | | |
| VEHICULAR NOISE | 56.5 | 55.0 | 49.4 | 46.2 | 55.1 | **55.5** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 2 | 6 | 18 | 55 |
| LDN | 2 | 5 | 16 | 52 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Wheeler Blvd
SEGMENT Valencia to Orange
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 700 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 24 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 70 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 48.6 | - - |
| MEDIUM TRUCKS= | 4.00 | 48.5 | - - |
| HEAVY TRUCKS = | 8.01 | 48.6 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 48.4 | 46.5 | 44.7 | 38.7 | 47.3 | 47.9 |
| MEDIUM TRUCKS | 43.0 | 41.6 | 35.2 | 32.2 | 41.4 | 41.7 |
| HEAVY TRUCKS | 51.7 | 50.4 | 41.5 | 41.2 | 50.3 | 50.4 |
| | | | | | | |
| VEHICULAR NOISE | 53.8 | 52.3 | 46.7 | 43.5 | 52.4 | **52.7** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 1 | 3 | 9 | 30 |
| LDN | 1 | 3 | 9 | 28 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Rosena to Nuevo
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 15,200 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 70 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,520 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 35.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 35.7 | - - |
| HEAVY TRUCKS = | 8.01 | 35.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 67.3 | 65.4 | 63.6 | 57.6 | 66.2 | 66.8 |
| MEDIUM TRUCKS | 59.9 | 58.6 | 52.2 | 49.2 | 58.4 | 58.7 |
| HEAVY TRUCKS | 67.8 | 66.5 | 57.5 | 57.3 | 66.3 | 66.5 |
| | | | | | | |
| VEHICULAR NOISE | 70.9 | 69.4 | 64.8 | 60.8 | 69.6 | **70.0** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | 50 | 158 | 500 | 1580 |
| LDN | 46 | 145 | 459 | 1451 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Nuevo to Sierra
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 19,817 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 66 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,982 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 37.7 | - - |
| MEDIUM TRUCKS= | 4.00 | 37.6 | - - |
| HEAVY TRUCKS = | 8.01 | 37.7 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 68.3 | 66.4 | 64.5 | 58.5 | 67.2 | 67.8 |
| MEDIUM TRUCKS | 60.9 | 59.5 | 53.1 | 50.1 | 59.3 | 59.6 |
| HEAVY TRUCKS | 68.7 | 67.4 | 58.5 | 58.2 | 67.3 | 67.4 |
| | | | | | | |
| VEHICULAR NOISE | 71.9 | 70.3 | 65.7 | 61.7 | 70.6 | **70.9** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | 62 | 196 | 620 | 1959 |
| LDN | 57 | 180 | 569 | 1799 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Sierra to Wheeler
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 17,663 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 66 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,766 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 37.7 | - - |
| MEDIUM TRUCKS= | 4.00 | 37.6 | - - |
| HEAVY TRUCKS = | 8.01 | 37.7 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 67.8 | 65.9 | 64.0 | 58.0 | 66.7 | 67.3 |
| MEDIUM TRUCKS | 60.4 | 59.0 | 52.6 | 49.6 | 58.8 | 59.1 |
| HEAVY TRUCKS | 68.2 | 66.9 | 58.0 | 57.7 | 66.8 | 66.9 |
| | | | | | | |
| VEHICULAR NOISE | 71.4 | 69.8 | 65.2 | 61.2 | 70.1 | **70.4** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 55 | 175 | 552 | 1746 |
| LDN | 51 | 160 | 507 | 1604 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Wheeler to Emerald
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 13,800 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 70 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,380 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 35.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 35.7 | - - |
| HEAVY TRUCKS = | 8.01 | 35.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 66.9 | 65.0 | 63.2 | 57.2 | 65.8 | 66.4 |
| MEDIUM TRUCKS | 59.5 | 58.1 | 51.8 | 48.7 | 58.0 | 58.2 |
| HEAVY TRUCKS | 67.3 | 66.0 | 57.1 | 56.9 | 65.9 | 66.1 |
| | | | | | | |
| VEHICULAR NOISE | 70.5 | 69.0 | 64.4 | 60.3 | 69.2 | **69.6** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 45 | 143 | 454 | 1435 |
| LDN | 42 | 132 | 417 | 1318 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Emerald to Mango
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 15,400 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 70 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,540 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 35.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 35.7 | - - |
| HEAVY TRUCKS = | 8.01 | 35.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 67.4 | 65.5 | 63.7 | 57.7 | 66.3 | 66.9 |
| MEDIUM TRUCKS | 60.0 | 58.6 | 52.3 | 49.2 | 58.4 | 58.7 |
| HEAVY TRUCKS | 67.8 | 66.5 | 57.6 | 57.3 | 66.4 | 66.5 |
| | | | | | | |
| VEHICULAR NOISE | 71.0 | 69.4 | 64.9 | 60.8 | 69.7 | **70.1** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 51 | 160 | 506 | 1601 |
| LDN | 46 | 147 | 465 | 1470 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Ceres Ave
SEGMENT Nuevo to Sierra
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 2,650 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 30 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 265 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 47.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 47.7 | - - |
| HEAVY TRUCKS = | 8.01 | 47.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 54.3 | 52.4 | 50.5 | 44.6 | 53.2 | 53.8 |
| MEDIUM TRUCKS | 48.8 | 47.4 | 41.1 | 38.0 | 47.3 | 47.5 |
| HEAVY TRUCKS | 57.6 | 56.3 | 47.3 | 47.1 | 56.1 | 56.3 |
| | | | | | | |
| VEHICULAR NOISE | 59.6 | 58.2 | 52.6 | 49.4 | 58.3 | **58.6** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 4 | 11 | 36 | 114 |
| LDN | 3 | 11 | 34 | 106 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Foothill Blvd
SEGMENT Juniper to Sierra
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 27,602 |
| SPEED = | 45 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 50 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,760 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 43.4 | - - |
| MEDIUM TRUCKS= | 4.00 | 43.3 | - - |
| HEAVY TRUCKS = | 8.01 | 43.4 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 72.2 | 70.3 | 68.5 | 62.5 | 71.1 | 71.7 |
| MEDIUM TRUCKS | 63.4 | 62.0 | 55.7 | 52.6 | 61.8 | 62.1 |
| HEAVY TRUCKS | 70.5 | 69.2 | 60.3 | 60.0 | 69.1 | 69.2 |
| | | | | | | |
| VEHICULAR NOISE | 74.8 | 73.2 | 69.3 | 64.7 | 73.5 | **74.0** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 125 | 394 | 1246 | 3939 |
| LDN | 113 | 358 | 1131 | 3576 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Foothill Blvd
SEGMENT Sierra to Mango
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 23,500 |
| SPEED = | 45 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 60 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,350 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 40.1 | - - |
| MEDIUM TRUCKS= | 4.00 | 40.0 | - - |
| HEAVY TRUCKS = | 8.01 | 40.1 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 71.9 | 70.0 | 68.1 | 62.2 | 70.8 | 71.4 |
| MEDIUM TRUCKS | 63.0 | 61.7 | 55.3 | 52.3 | 61.5 | 61.8 |
| HEAVY TRUCKS | 70.2 | 68.9 | 59.9 | 59.7 | 68.7 | 68.9 |
| | | | | | | |
| VEHICULAR NOISE | 74.4 | 72.8 | 68.9 | 64.4 | 73.2 | **73.6** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | 115 | 363 | 1148 | 3629 |
| LDN | 104 | 329 | 1042 | 3294 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Juniper Ave
SEGMENT Foothill to Upland
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 13,800 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 42 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,380 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.5 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.4 | - - |
| HEAVY TRUCKS = | 8.01 | 45.5 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 65.9 | 64.0 | 62.1 | 56.2 | 64.8 | 65.4 |
| MEDIUM TRUCKS | 58.5 | 57.1 | 50.7 | 47.7 | 56.9 | 57.2 |
| HEAVY TRUCKS | 66.3 | 65.0 | 56.1 | 55.8 | 64.9 | 65.0 |
| | | | | | | |
| VEHICULAR NOISE | 69.5 | 67.9 | 63.3 | 59.3 | 68.2 | **68.5** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 36 | 113 | 357 | 1131 |
| LDN | 33 | 104 | 328 | 1038 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Juniper Ave
SEGMENT Upland to Arrow
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 18,100 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 40 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,810 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.9 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.8 | - - |
| HEAVY TRUCKS = | 8.01 | 45.9 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 67.0 | 65.1 | 63.3 | 57.3 | 65.9 | 66.5 |
| MEDIUM TRUCKS | 59.6 | 58.2 | 51.9 | 48.8 | 58.1 | 58.3 |
| HEAVY TRUCKS | 67.4 | 66.1 | 57.2 | 57.0 | 66.0 | 66.2 |
| | | | | | | |
| VEHICULAR NOISE | 70.6 | 69.1 | 64.5 | 60.4 | 69.3 | **69.7** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 46 | 147 | 464 | 1468 |
| LDN | 43 | 135 | 426 | 1348 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Juniper Ave
SEGMENT Arrow to Valencia
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 16,097 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 36 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,610 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 46.7 | - - |
| MEDIUM TRUCKS= | 4.00 | 46.7 | - - |
| HEAVY TRUCKS = | 8.01 | 46.7 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 66.4 | 64.5 | 62.7 | 56.7 | 65.3 | 65.9 |
| MEDIUM TRUCKS | 59.0 | 57.7 | 51.3 | 48.2 | 57.5 | 57.7 |
| HEAVY TRUCKS | 66.9 | 65.6 | 56.6 | 56.4 | 65.4 | 65.6 |
| | | | | | | |
| VEHICULAR NOISE | 70.0 | 68.5 | 63.9 | 59.9 | 68.7 | **69.1** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | 41 | 128 | 406 | 1283 |
| LDN | 37 | 118 | 373 | 1178 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Mango Ave
SEGMENT Foothill to Upland
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 10,400 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 40 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,040 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.9 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.8 | - - |
| HEAVY TRUCKS = | 8.01 | 45.9 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 64.6 | 62.7 | 60.9 | 54.9 | 63.5 | 64.1 |
| MEDIUM TRUCKS | 57.2 | 55.8 | 49.5 | 46.4 | 55.7 | 55.9 |
| HEAVY TRUCKS | 65.0 | 63.7 | 54.8 | 54.6 | 63.6 | 63.8 |
| | | | | | | |
| VEHICULAR NOISE | 68.2 | 66.6 | 62.1 | 58.0 | 66.9 | **67.3** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 27 | 84 | 267 | 844 |
| LDN | 25 | 77 | 245 | 775 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Mango Ave
SEGMENT Upland to Valencia
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 12,655 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 38 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,265 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 46.3 | - - |
| MEDIUM TRUCKS= | 4.00 | 46.3 | - - |
| HEAVY TRUCKS = | 8.01 | 46.3 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 65.4 | 63.5 | 61.7 | 55.7 | 64.3 | 64.9 |
| MEDIUM TRUCKS | 58.0 | 56.6 | 50.3 | 47.2 | 56.5 | 56.7 |
| HEAVY TRUCKS | 65.8 | 64.6 | 55.6 | 55.4 | 64.4 | 64.6 |
| | | | | | | |
| VEHICULAR NOISE | 69.0 | 67.5 | 62.9 | 58.9 | 67.7 | **68.1** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 32 | 102 | 322 | 1017 |
| LDN | 30 | 93 | 295 | 934 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Mango Ave
SEGMENT Valencia to Merrill
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 13,500 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 38 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,350 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 46.3 | - - |
| MEDIUM TRUCKS= | 4.00 | 46.3 | - - |
| HEAVY TRUCKS = | 8.01 | 46.3 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 65.7 | 63.8 | 62.0 | 56.0 | 64.6 | 65.2 |
| MEDIUM TRUCKS | 58.3 | 56.9 | 50.6 | 47.5 | 56.7 | 57.0 |
| HEAVY TRUCKS | 66.1 | 64.8 | 55.9 | 55.6 | 64.7 | 64.8 |
| | | | | | | |
| VEHICULAR NOISE | 69.3 | 67.7 | 63.2 | 59.1 | 68.0 | **68.4** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 34 | 109 | 343 | 1085 |
| LDN | 32 | 100 | 315 | 997 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Merrill Ave
SEGMENT Juniper to Mango
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 15,380 |
| SPEED = | 40 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 42 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,538 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.5 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.4 | - - |
| HEAVY TRUCKS = | 8.01 | 45.5 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 68.0 | 66.1 | 64.3 | 58.3 | 66.9 | 67.5 |
| MEDIUM TRUCKS | 59.9 | 58.5 | 52.1 | 49.1 | 58.3 | 58.6 |
| HEAVY TRUCKS | 67.3 | 66.0 | 57.1 | 56.8 | 65.9 | 66.0 |
| | | | | | | |
| VEHICULAR NOISE | 71.0 | 69.4 | 65.3 | 60.9 | 69.8 | **70.2** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 52 | 164 | 518 | 1639 |
| LDN | 47 | 150 | 473 | 1496 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Nuevo Blvd
SEGMENT Arrow to Valencia
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 1,392 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 18 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 139 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 49.3 | - - |
| MEDIUM TRUCKS= | 4.00 | 49.2 | - - |
| HEAVY TRUCKS = | 8.01 | 49.3 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 51.4 | 49.5 | 47.6 | 41.6 | 50.3 | 50.9 |
| MEDIUM TRUCKS | 45.9 | 44.5 | 38.2 | 35.1 | 44.3 | 44.6 |
| HEAVY TRUCKS | 54.6 | 53.4 | 44.4 | 44.2 | 53.2 | 53.4 |
| | | | | | | |
| VEHICULAR NOISE | 56.7 | 55.2 | 49.6 | 46.4 | 55.4 | **55.7** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 2 | 6 | 18 | 58 |
| LDN | 2 | 5 | 17 | 54 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Nuevo Blvd
SEGMENT Valencia to Orange
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 700 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 18 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 70 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 49.3 | - - |
| MEDIUM TRUCKS= | 4.00 | 49.2 | - - |
| HEAVY TRUCKS = | 8.01 | 49.3 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 52.6 | 50.7 | 48.8 | 42.9 | 51.5 | 52.1 |
| MEDIUM TRUCKS | 45.2 | 43.8 | 37.4 | 34.4 | 43.6 | 43.9 |
| HEAVY TRUCKS | 53.0 | 51.7 | 42.8 | 42.5 | 51.6 | 51.7 |
| | | | | | | |
| VEHICULAR NOISE | 56.2 | 54.6 | 50.0 | 46.0 | 54.9 | **55.2** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 2 | 5 | 17 | 53 |
| LDN | 2 | 5 | 15 | 49 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Orange Blvd
SEGMENT Nuevo to Sierra
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 8,445 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 42 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 844 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.5 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.4 | - - |
| HEAVY TRUCKS = | 8.01 | 45.5 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 63.7 | 61.9 | 60.0 | 54.0 | 62.6 | 63.2 |
| MEDIUM TRUCKS | 56.3 | 55.0 | 48.6 | 45.6 | 54.8 | 55.1 |
| HEAVY TRUCKS | 64.2 | 62.9 | 53.9 | 53.7 | 62.7 | 62.9 |
| | | | | | | |
| VEHICULAR NOISE | 67.3 | 65.8 | 61.2 | 57.2 | 66.0 | **66.4** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 22 | 69 | 219 | 692 |
| LDN | 20 | 64 | 201 | 635 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Orange Blvd
SEGMENT Sierra to Wheeler
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 1,415 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 40 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 142 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.9 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.8 | - - |
| HEAVY TRUCKS = | 8.01 | 45.9 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 55.9 | 54.1 | 52.2 | 46.2 | 54.8 | 55.4 |
| MEDIUM TRUCKS | 48.5 | 47.2 | 40.8 | 37.8 | 47.0 | 47.3 |
| HEAVY TRUCKS | 56.4 | 55.1 | 46.1 | 45.9 | 54.9 | 55.1 |
| | | | | | | |
| VEHICULAR NOISE | 59.5 | 58.0 | 53.4 | 49.4 | 58.2 | **58.6** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 4 | 11 | 36 | 115 |
| LDN | 3 | 11 | 33 | 105 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Randall Ave
SEGMENT Juniper to Mango
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 8,954 |
| SPEED = | 40 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 48 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 895 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 44.0 | - - |
| MEDIUM TRUCKS= | 4.00 | 43.9 | - - |
| HEAVY TRUCKS = | 8.01 | 44.0 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 65.8 | 63.9 | 62.1 | 56.1 | 64.7 | 65.3 |
| MEDIUM TRUCKS | 57.7 | 56.3 | 49.9 | 46.9 | 56.1 | 56.4 |
| HEAVY TRUCKS | 65.1 | 63.8 | 54.9 | 54.6 | 63.7 | 63.8 |
| | | | | | | |
| VEHICULAR NOISE | 68.8 | 67.2 | 63.1 | 58.7 | 67.6 | **68.0** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 31 | 99 | 312 | 987 |
| LDN | 28 | 90 | 285 | 901 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Upland to Arrow
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout No Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 22,200 |
| SPEED = | 30 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 38 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,220 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.948 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.034 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 46.3 | - - |
| MEDIUM TRUCKS= | 4.00 | 46.3 | - - |
| HEAVY TRUCKS = | 8.01 | 46.3 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 65.9 | 64.0 | 62.2 | 56.2 | 64.8 | 65.4 |
| MEDIUM TRUCKS | 59.4 | 58.0 | 51.7 | 48.6 | 57.9 | 58.1 |
| HEAVY TRUCKS | 67.7 | 66.4 | 57.4 | 57.2 | 66.2 | 66.4 |
| | | | | | | |
| VEHICULAR NOISE | 70.3 | 68.8 | 63.7 | 60.1 | 69.0 | **69.3** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 42 | 134 | 425 | 1343 |
| LDN | 39 | 124 | 393 | 1242 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Juniper to Rosena
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 16,370 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 80 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,637 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 30.1 | - - |
| MEDIUM TRUCKS= | 4.00 | 30.0 | - - |
| HEAVY TRUCKS = | 8.01 | 30.2 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 68.4 | 66.5 | 64.7 | 58.7 | 67.3 | 67.9 |
| MEDIUM TRUCKS | 61.0 | 59.6 | 53.3 | 50.2 | 59.5 | 59.7 |
| HEAVY TRUCKS | 68.0 | 66.7 | 57.7 | 57.5 | 66.5 | 66.7 |
| | | | | | | |
| VEHICULAR NOISE | 71.6 | 70.0 | 65.7 | 61.5 | 70.3 | **70.7** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 59 | 187 | 591 | 1869 |
| LDN | 54 | 171 | 540 | 1708 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Arrow to Valencia
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 0 |
| SPEED = | 30 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 42 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 0 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.5 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.4 | - - |
| HEAVY TRUCKS = | 8.01 | 45.5 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! |
| MEDIUM TRUCKS | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! |
| HEAVY TRUCKS | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! |
| | | | | | | |
| VEHICULAR NOISE | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! | **#NUM!** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | #NUM! | #NUM! | #NUM! | #NUM! |
| LDN | #NUM! | #NUM! | #NUM! | #NUM! |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Foothill to Upland
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 31,931 |
| SPEED = | 30 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 50 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 3,193 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 43.4 | - - |
| MEDIUM TRUCKS= | 4.00 | 43.3 | - - |
| HEAVY TRUCKS = | 8.01 | 43.4 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 67.8 | 65.9 | 64.1 | 58.1 | 66.7 | 67.3 |
| MEDIUM TRUCKS | 61.3 | 59.9 | 53.5 | 50.5 | 59.7 | 60.0 |
| HEAVY TRUCKS | 68.7 | 67.4 | 58.4 | 58.2 | 67.2 | 67.4 |
| | | | | | | |
| VEHICULAR NOISE | 71.7 | 70.2 | 65.4 | 61.5 | 70.4 | **70.8** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 59 | 188 | 594 | 1879 |
| LDN | 55 | 173 | 547 | 1730 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Valencia to Orange
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 0 |
| SPEED = | 30 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 40 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 0 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.9 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.8 | - - |
| HEAVY TRUCKS = | 8.01 | 45.9 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! |
| MEDIUM TRUCKS | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! |
| HEAVY TRUCKS | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! |
| | | | | | | |
| VEHICULAR NOISE | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! | **#NUM!** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | #NUM! | #NUM! | #NUM! | #NUM! |
| LDN | #NUM! | #NUM! | #NUM! | #NUM! |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Orange to Merrill
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 27,200 |
| SPEED = | 30 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 60 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,720 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 40.1 | - - |
| MEDIUM TRUCKS= | 4.00 | 40.0 | - - |
| HEAVY TRUCKS = | 8.01 | 40.1 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 67.5 | 65.6 | 63.7 | 57.7 | 66.4 | 67.0 |
| MEDIUM TRUCKS | 60.9 | 59.6 | 53.2 | 50.2 | 59.4 | 59.6 |
| HEAVY TRUCKS | 68.3 | 67.0 | 58.1 | 57.8 | 66.9 | 67.0 |
| | | | | | | |
| VEHICULAR NOISE | 71.3 | 69.8 | 65.1 | 61.2 | 70.0 | **70.4** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 55 | 173 | 548 | 1732 |
| LDN | 50 | 160 | 504 | 1595 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Merrill to Athol
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 25,200 |
| SPEED = | 40 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 45 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,520 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 44.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 44.7 | - - |
| HEAVY TRUCKS = | 8.01 | 44.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 70.3 | 68.4 | 66.5 | 60.5 | 69.2 | 69.8 |
| MEDIUM TRUCKS | 62.1 | 60.7 | 54.3 | 51.3 | 60.5 | 60.8 |
| HEAVY TRUCKS | 68.7 | 67.4 | 58.4 | 58.2 | 67.2 | 67.4 |
| | | | | | | |
| VEHICULAR NOISE | 72.9 | 71.3 | 67.4 | 62.8 | 71.7 | **72.1** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 81 | 255 | 807 | 2551 |
| LDN | 73 | 232 | 733 | 2317 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Athol to Randall
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 35,761 |
| SPEED = | 40 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 52 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 3,576 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 42.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 42.7 | - - |
| HEAVY TRUCKS = | 8.01 | 42.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 72.0 | 70.1 | 68.2 | 62.2 | 70.9 | 71.5 |
| MEDIUM TRUCKS | 63.8 | 62.4 | 56.0 | 53.0 | 62.2 | 62.5 |
| HEAVY TRUCKS | 70.4 | 69.1 | 60.1 | 59.9 | 68.9 | 69.1 |
| | | | | | | |
| VEHICULAR NOISE | 74.6 | 73.0 | 69.1 | 64.6 | 73.4 | **73.8** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 120 | 378 | 1196 | 3783 |
| LDN | 109 | 344 | 1087 | 3437 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Valencia Blvd
SEGMENT Juniper to Sierra
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 3,486 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 28 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 349 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 48.1 | - - |
| MEDIUM TRUCKS= | 4.00 | 48.0 | - - |
| HEAVY TRUCKS = | 8.01 | 48.1 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 55.5 | 53.6 | 51.7 | 45.8 | 54.4 | 55.0 |
| MEDIUM TRUCKS | 50.0 | 48.6 | 42.2 | 39.2 | 48.4 | 48.7 |
| HEAVY TRUCKS | 57.9 | 56.6 | 47.6 | 47.4 | 56.5 | 56.6 |
| | | | | | | |
| VEHICULAR NOISE | 60.3 | 58.8 | 53.5 | 50.0 | 59.0 | **59.3** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 4 | 13 | 42 | 134 |
| LDN | 4 | 12 | 39 | 124 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Valencia Blvd
SEGMENT Sierra to Mango
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 3,220 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 28 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 322 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 48.1 | - - |
| MEDIUM TRUCKS= | 4.00 | 48.0 | - - |
| HEAVY TRUCKS = | 8.01 | 48.1 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 55.1 | 53.2 | 51.4 | 45.4 | 54.0 | 54.6 |
| MEDIUM TRUCKS | 49.6 | 48.3 | 41.9 | 38.9 | 48.1 | 48.4 |
| HEAVY TRUCKS | 57.5 | 56.2 | 47.3 | 47.1 | 56.1 | 56.3 |
| | | | | | | |
| VEHICULAR NOISE | 59.9 | 58.4 | 53.2 | 49.7 | 58.6 | **58.9** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 4 | 12 | 39 | 124 |
| LDN | 4 | 11 | 36 | 115 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Wheeler Blvd
SEGMENT Arrow to Valencia
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 15,365 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 24 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,537 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 48.6 | - - |
| MEDIUM TRUCKS= | 4.00 | 48.5 | - - |
| HEAVY TRUCKS = | 8.01 | 48.6 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 61.9 | 60.0 | 58.1 | 52.1 | 60.8 | 61.4 |
| MEDIUM TRUCKS | 56.4 | 55.0 | 48.6 | 45.6 | 54.8 | 55.1 |
| HEAVY TRUCKS | 64.3 | 63.0 | 54.0 | 53.8 | 62.8 | 63.0 |
| | | | | | | |
| VEHICULAR NOISE | 66.7 | 65.2 | 59.9 | 56.4 | 65.3 | **65.7** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 18 | 58 | 184 | 583 |
| LDN | 17 | 54 | 171 | 541 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Wheeler Blvd
SEGMENT Valencia to Orange
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 12,900 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 24 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,290 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 48.6 | - - |
| MEDIUM TRUCKS= | 4.00 | 48.5 | - - |
| HEAVY TRUCKS = | 8.01 | 48.6 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 61.1 | 59.2 | 57.4 | 51.4 | 60.0 | 60.6 |
| MEDIUM TRUCKS | 55.6 | 54.2 | 47.9 | 44.8 | 54.1 | 54.3 |
| HEAVY TRUCKS | 63.5 | 62.2 | 53.3 | 53.0 | 62.1 | 62.2 |
| | | | | | | |
| VEHICULAR NOISE | 65.9 | 64.4 | 59.1 | 55.7 | 64.6 | **64.9** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 15 | 49 | 155 | 490 |
| LDN | 14 | 45 | 144 | 455 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Rosena to Nuevo
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 15,000 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 70 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,500 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 35.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 35.7 | - - |
| HEAVY TRUCKS = | 8.01 | 35.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 67.3 | 65.4 | 63.6 | 57.6 | 66.2 | 66.8 |
| MEDIUM TRUCKS | 59.9 | 58.5 | 52.1 | 49.1 | 58.3 | 58.6 |
| HEAVY TRUCKS | 66.8 | 65.6 | 56.6 | 56.4 | 65.4 | 65.6 |
| | | | | | | |
| VEHICULAR NOISE | 70.5 | 68.9 | 64.6 | 60.4 | 69.2 | **69.6** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 46 | 144 | 456 | 1441 |
| LDN | 42 | 132 | 416 | 1317 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Nuevo to Sierra
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 26,021 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 66 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,602 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 37.7 | - - |
| MEDIUM TRUCKS= | 4.00 | 37.6 | - - |
| HEAVY TRUCKS = | 8.01 | 37.7 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 69.5 | 67.6 | 65.7 | 59.8 | 68.4 | 69.0 |
| MEDIUM TRUCKS | 62.1 | 60.7 | 54.3 | 51.3 | 60.5 | 60.8 |
| HEAVY TRUCKS | 69.0 | 67.7 | 58.8 | 58.5 | 67.6 | 67.7 |
| | | | | | | |
| VEHICULAR NOISE | 72.7 | 71.1 | 66.8 | 62.5 | 71.4 | **71.8** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 75 | 238 | 751 | 2376 |
| LDN | 69 | 217 | 687 | 2172 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Sierra to Wheeler
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 28,592 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 66 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,859 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 37.7 | - - |
| MEDIUM TRUCKS= | 4.00 | 37.6 | - - |
| HEAVY TRUCKS = | 8.01 | 37.7 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 69.9 | 68.0 | 66.1 | 60.2 | 68.8 | 69.4 |
| MEDIUM TRUCKS | 62.5 | 61.1 | 54.7 | 51.7 | 60.9 | 61.2 |
| HEAVY TRUCKS | 69.4 | 68.1 | 59.2 | 59.0 | 68.0 | 68.1 |
| | | | | | | |
| VEHICULAR NOISE | 73.1 | 71.5 | 67.2 | 62.9 | 71.8 | **72.2** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 83 | 261 | 826 | 2611 |
| LDN | 75 | 239 | 755 | 2387 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Wheeler to Emerald
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 12,800 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 70 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,280 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 35.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 35.7 | - - |
| HEAVY TRUCKS = | 8.01 | 35.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 66.6 | 64.7 | 62.9 | 56.9 | 65.5 | 66.1 |
| MEDIUM TRUCKS | 59.2 | 57.8 | 51.5 | 48.4 | 57.6 | 57.9 |
| HEAVY TRUCKS | 66.2 | 64.9 | 55.9 | 55.7 | 64.7 | 64.9 |
| | | | | | | |
| VEHICULAR NOISE | 69.8 | 68.2 | 63.9 | 59.7 | 68.5 | **68.9** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | 39 | 123 | 389 | 1229 |
| LDN | 36 | 112 | 355 | 1124 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Emerald to Mango
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 16,300 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 70 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,630 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 35.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 35.7 | - - |
| HEAVY TRUCKS = | 8.01 | 35.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 67.7 | 65.8 | 63.9 | 57.9 | 66.6 | 67.2 |
| MEDIUM TRUCKS | 60.2 | 58.9 | 52.5 | 49.5 | 58.7 | 59.0 |
| HEAVY TRUCKS | 67.2 | 65.9 | 57.0 | 56.7 | 65.8 | 65.9 |
| | | | | | | |
| VEHICULAR NOISE | 70.8 | 69.3 | 65.0 | 60.7 | 69.6 | **70.0** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | 50 | 157 | 495 | 1565 |
| LDN | 45 | 143 | 453 | 1431 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Ceres Ave
SEGMENT Nuevo to Sierra
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 2,989 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 30 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 299 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 47.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 47.7 | - - |
| HEAVY TRUCKS = | 8.01 | 47.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 54.8 | 52.9 | 51.1 | 45.1 | 53.7 | 54.3 |
| MEDIUM TRUCKS | 49.3 | 48.0 | 41.6 | 38.6 | 47.8 | 48.1 |
| HEAVY TRUCKS | 57.2 | 56.0 | 47.0 | 46.8 | 55.8 | 56.0 |
| | | | | | | |
| VEHICULAR NOISE | 59.6 | 58.2 | 52.9 | 49.4 | 58.3 | **58.6** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 4 | 12 | 37 | 115 |
| LDN | 3 | 11 | 34 | 107 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Foothill Blvd
SEGMENT Juniper to Sierra
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 27,137 |
| SPEED = | 45 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 50 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,714 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 43.4 | - - |
| MEDIUM TRUCKS= | 4.00 | 43.3 | - - |
| HEAVY TRUCKS = | 8.01 | 43.4 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 72.2 | 70.3 | 68.5 | 62.5 | 71.1 | 71.7 |
| MEDIUM TRUCKS | 63.3 | 61.9 | 55.6 | 52.5 | 61.8 | 62.0 |
| HEAVY TRUCKS | 69.6 | 68.3 | 59.4 | 59.1 | 68.2 | 68.3 |
| | | | | | | |
| VEHICULAR NOISE | 74.4 | 72.8 | 69.2 | 64.4 | 73.2 | **73.6** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 116 | 365 | 1156 | 3654 |
| LDN | 104 | 330 | 1045 | 3303 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Foothill Blvd
SEGMENT Sierra to Mango
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 23,700 |
| SPEED = | 45 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 60 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,370 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 40.1 | - - |
| MEDIUM TRUCKS= | 4.00 | 40.0 | - - |
| HEAVY TRUCKS = | 8.01 | 40.1 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 71.9 | 70.1 | 68.2 | 62.2 | 70.8 | 71.4 |
| MEDIUM TRUCKS | 63.1 | 61.7 | 55.3 | 52.3 | 61.5 | 61.8 |
| HEAVY TRUCKS | 69.3 | 68.1 | 59.1 | 58.9 | 67.9 | 68.1 |
| | | | | | | |
| VEHICULAR NOISE | 74.2 | 72.5 | 68.9 | 64.2 | 73.0 | **73.4** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | 109 | 345 | 1092 | 3454 |
| LDN | 99 | 312 | 987 | 3122 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Juniper Ave
SEGMENT Foothill to Upland
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 14,900 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 42 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,490 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.5 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.4 | - - |
| HEAVY TRUCKS = | 8.01 | 45.5 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 66.2 | 64.3 | 62.5 | 56.5 | 65.1 | 65.7 |
| MEDIUM TRUCKS | 58.8 | 57.4 | 51.1 | 48.0 | 57.3 | 57.5 |
| HEAVY TRUCKS | 65.8 | 64.5 | 55.5 | 55.3 | 64.4 | 64.5 |
| | | | | | | |
| VEHICULAR NOISE | 69.4 | 67.8 | 63.6 | 59.3 | 68.1 | **68.5** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 36 | 113 | 357 | 1127 |
| LDN | 33 | 103 | 326 | 1031 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Juniper Ave
SEGMENT Upland to Arrow
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 19,900 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 40 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,990 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.9 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.8 | - - |
| HEAVY TRUCKS = | 8.01 | 45.9 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 67.4 | 65.6 | 63.7 | 57.7 | 66.4 | 66.9 |
| MEDIUM TRUCKS | 60.0 | 58.7 | 52.3 | 49.2 | 58.5 | 58.7 |
| HEAVY TRUCKS | 67.0 | 65.7 | 56.8 | 56.5 | 65.6 | 65.7 |
| | | | | | | |
| VEHICULAR NOISE | 70.6 | 69.1 | 64.8 | 60.5 | 69.4 | **69.7** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 47 | 149 | 472 | 1491 |
| LDN | 43 | 136 | 431 | 1363 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Juniper Ave
SEGMENT Arrow to Valencia
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 17,554 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 36 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,755 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 46.7 | - - |
| MEDIUM TRUCKS= | 4.00 | 46.7 | - - |
| HEAVY TRUCKS = | 8.01 | 46.7 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 66.8 | 64.9 | 63.1 | 57.1 | 65.7 | 66.3 |
| MEDIUM TRUCKS | 59.4 | 58.0 | 51.7 | 48.6 | 57.8 | 58.1 |
| HEAVY TRUCKS | 66.4 | 65.1 | 56.1 | 55.9 | 64.9 | 65.1 |
| | | | | | | |
| VEHICULAR NOISE | 70.0 | 68.4 | 64.1 | 59.9 | 68.7 | **69.1** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 41 | 129 | 409 | 1292 |
| LDN | 37 | 118 | 374 | 1181 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Mango Ave
SEGMENT Foothill to Upland
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 11,300 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 40 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,130 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.9 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.8 | - - |
| HEAVY TRUCKS = | 8.01 | 45.9 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 65.0 | 63.1 | 61.3 | 55.3 | 63.9 | 64.5 |
| MEDIUM TRUCKS | 57.6 | 56.2 | 49.8 | 46.8 | 56.0 | 56.3 |
| HEAVY TRUCKS | 64.5 | 63.2 | 54.3 | 54.1 | 63.1 | 63.3 |
| | | | | | | |
| VEHICULAR NOISE | 68.2 | 66.6 | 62.3 | 58.1 | 66.9 | **67.3** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 27 | 85 | 268 | 847 |
| LDN | 24 | 77 | 245 | 774 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Mango Ave
SEGMENT Upland to Valencia
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 15,728 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 38 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,573 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 46.3 | - - |
| MEDIUM TRUCKS= | 4.00 | 46.3 | - - |
| HEAVY TRUCKS = | 8.01 | 46.3 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 66.4 | 64.5 | 62.7 | 56.7 | 65.3 | 65.9 |
| MEDIUM TRUCKS | 59.0 | 57.6 | 51.2 | 48.2 | 57.4 | 57.7 |
| HEAVY TRUCKS | 65.9 | 64.6 | 55.7 | 55.5 | 64.5 | 64.7 |
| | | | | | | |
| VEHICULAR NOISE | 69.6 | 68.0 | 63.7 | 59.5 | 68.3 | **68.7** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 37 | 117 | 369 | 1168 |
| LDN | 34 | 107 | 338 | 1067 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Mango Ave
SEGMENT Valencia to Merrill
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 19,400 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 38 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,940 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 46.3 | - - |
| MEDIUM TRUCKS= | 4.00 | 46.3 | - - |
| HEAVY TRUCKS = | 8.01 | 46.3 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 67.3 | 65.4 | 63.6 | 57.6 | 66.2 | 66.8 |
| MEDIUM TRUCKS | 59.9 | 58.5 | 52.1 | 49.1 | 58.3 | 58.6 |
| HEAVY TRUCKS | 66.8 | 65.6 | 56.6 | 56.4 | 65.4 | 65.6 |
| | | | | | | |
| VEHICULAR NOISE | 70.5 | 68.9 | 64.6 | 60.4 | 69.2 | **69.6** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 46 | 144 | 455 | 1440 |
| LDN | 42 | 132 | 416 | 1317 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Merrill Ave
SEGMENT Juniper to Mango
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 16,815 |
| SPEED = | 40 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 42 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,682 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.5 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.4 | - - |
| HEAVY TRUCKS = | 8.01 | 45.5 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 68.4 | 66.5 | 64.7 | 58.7 | 67.3 | 67.9 |
| MEDIUM TRUCKS | 60.2 | 58.9 | 52.5 | 49.5 | 58.7 | 59.0 |
| HEAVY TRUCKS | 66.8 | 65.5 | 56.6 | 56.4 | 65.4 | 65.6 |
| | | | | | | |
| VEHICULAR NOISE | 71.1 | 69.5 | 65.5 | 61.0 | 69.8 | **70.2** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 53 | 167 | 530 | 1675 |
| LDN | 48 | 152 | 481 | 1522 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Nuevo Blvd
SEGMENT Arrow to Valencia
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 17,153 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 18 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,715 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 49.3 | - - |
| MEDIUM TRUCKS= | 4.00 | 49.2 | - - |
| HEAVY TRUCKS = | 8.01 | 49.3 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 62.3 | 60.4 | 58.6 | 52.6 | 61.2 | 61.8 |
| MEDIUM TRUCKS | 56.8 | 55.4 | 49.1 | 46.0 | 55.2 | 55.5 |
| HEAVY TRUCKS | 64.7 | 63.4 | 54.5 | 54.2 | 63.3 | 63.4 |
| | | | | | | |
| VEHICULAR NOISE | 67.1 | 65.6 | 60.3 | 56.9 | 65.8 | **66.1** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 20 | 64 | 203 | 643 |
| LDN | 19 | 60 | 189 | 596 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Nuevo Blvd
SEGMENT Valencia to Orange
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 10,600 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 18 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,060 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 49.3 | - - |
| MEDIUM TRUCKS= | 4.00 | 49.2 | - - |
| HEAVY TRUCKS = | 8.01 | 49.3 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 64.4 | 62.5 | 60.7 | 54.7 | 63.3 | 63.9 |
| MEDIUM TRUCKS | 57.0 | 55.6 | 49.2 | 46.2 | 55.4 | 55.7 |
| HEAVY TRUCKS | 64.0 | 62.7 | 53.7 | 53.5 | 62.5 | 62.7 |
| | | | | | | |
| VEHICULAR NOISE | 67.6 | 66.0 | 61.7 | 57.5 | 66.3 | **66.7** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 23 | 74 | 234 | 740 |
| LDN | 21 | 68 | 214 | 677 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Orange Blvd
SEGMENT Nuevo to Sierra
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 21,478 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 42 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,148 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.5 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.4 | - - |
| HEAVY TRUCKS = | 8.01 | 45.5 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 67.8 | 65.9 | 64.1 | 58.1 | 66.7 | 67.3 |
| MEDIUM TRUCKS | 60.4 | 59.0 | 52.7 | 49.6 | 58.8 | 59.1 |
| HEAVY TRUCKS | 67.4 | 66.1 | 57.1 | 56.9 | 65.9 | 66.1 |
| | | | | | | |
| VEHICULAR NOISE | 71.0 | 69.4 | 65.1 | 60.9 | 69.7 | **70.1** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 51 | 163 | 514 | 1625 |
| LDN | 47 | 149 | 470 | 1486 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Orange Blvd
SEGMENT Sierra to Wheeler
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 16,973 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 40 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,697 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.9 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.8 | - - |
| HEAVY TRUCKS = | 8.01 | 45.9 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 66.8 | 64.9 | 63.0 | 57.0 | 65.7 | 66.3 |
| MEDIUM TRUCKS | 59.3 | 58.0 | 51.6 | 48.6 | 57.8 | 58.1 |
| HEAVY TRUCKS | 66.3 | 65.0 | 56.1 | 55.8 | 64.9 | 65.0 |
| | | | | | | |
| VEHICULAR NOISE | 69.9 | 68.4 | 64.1 | 59.8 | 68.7 | **69.1** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 40 | 127 | 402 | 1272 |
| LDN | 37 | 116 | 368 | 1163 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Randall Ave
SEGMENT Juniper to Mango
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 8,978 |
| SPEED = | 40 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 48 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 898 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 44.0 | - - |
| MEDIUM TRUCKS= | 4.00 | 43.9 | - - |
| HEAVY TRUCKS = | 8.01 | 44.0 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 65.9 | 64.0 | 62.1 | 56.1 | 64.8 | 65.4 |
| MEDIUM TRUCKS | 57.7 | 56.3 | 49.9 | 46.9 | 56.1 | 56.4 |
| HEAVY TRUCKS | 64.3 | 63.0 | 54.0 | 53.8 | 62.8 | 63.0 |
| | | | | | | |
| VEHICULAR NOISE | 68.5 | 66.9 | 63.0 | 58.4 | 67.3 | **67.7** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 29 | 92 | 292 | 925 |
| LDN | 27 | 84 | 266 | 840 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Upland to Arrow
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout With Project

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 20,000 |
| SPEED = | 30 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 38 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,000 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.954 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.028 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 46.3 | - - |
| MEDIUM TRUCKS= | 4.00 | 46.3 | - - |
| HEAVY TRUCKS = | 8.01 | 46.3 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 65.5 | 63.6 | 61.8 | 55.8 | 64.4 | 65.0 |
| MEDIUM TRUCKS | 59.0 | 57.6 | 51.2 | 48.2 | 57.4 | 57.7 |
| HEAVY TRUCKS | 66.4 | 65.1 | 56.1 | 55.9 | 64.9 | 65.1 |
| | | | | | | |
| VEHICULAR NOISE | 69.4 | 67.8 | 63.1 | 59.2 | 68.1 | **68.4** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | 35 | 110 | 349 | 1102 |
| LDN | 32 | 102 | 321 | 1015 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Wheeler Blvd
SEGMENT Valencia to Orange
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 12,900 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 24 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,290 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 48.6 | - - |
| MEDIUM TRUCKS= | 4.00 | 48.5 | - - |
| HEAVY TRUCKS = | 8.01 | 48.6 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 61.0 | 59.1 | 57.3 | 51.3 | 59.9 | 60.5 |
| MEDIUM TRUCKS | 55.6 | 54.2 | 47.9 | 44.8 | 54.1 | 54.3 |
| HEAVY TRUCKS | 65.7 | 64.4 | 55.5 | 55.2 | 64.3 | 64.4 |
| | | | | | | |
| VEHICULAR NOISE | 67.3 | 65.8 | 59.8 | 57.0 | 65.9 | **66.2** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 21 | 66 | 208 | 659 |
| LDN | 20 | 62 | 196 | 618 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Juniper to Rosena
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 15,860 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 80 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,586 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 30.1 | - - |
| MEDIUM TRUCKS= | 4.00 | 30.0 | - - |
| HEAVY TRUCKS = | 8.01 | 30.2 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 68.2 | 66.3 | 64.5 | 58.5 | 67.1 | 67.7 |
| MEDIUM TRUCKS | 60.9 | 59.5 | 53.1 | 50.1 | 59.3 | 59.6 |
| HEAVY TRUCKS | 70.0 | 68.7 | 59.8 | 59.5 | 68.6 | 68.7 |
| | | | | | | |
| VEHICULAR NOISE | 72.5 | 71.0 | 66.0 | 62.3 | 71.2 | **71.6** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 71 | 226 | 714 | 2259 |
| LDN | 66 | 209 | 661 | 2090 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Valencia Blvd
SEGMENT Sierra to Mango
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 1,891 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 28 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 189 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 48.1 | - - |
| MEDIUM TRUCKS= | 4.00 | 48.0 | - - |
| HEAVY TRUCKS = | 8.01 | 48.1 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 52.7 | 50.8 | 49.0 | 43.0 | 51.6 | 52.2 |
| MEDIUM TRUCKS | 47.3 | 45.9 | 39.6 | 36.5 | 45.8 | 46.0 |
| HEAVY TRUCKS | 57.4 | 56.1 | 47.2 | 46.9 | 56.0 | 56.1 |
| | | | | | | |
| VEHICULAR NOISE | 59.0 | 57.6 | 51.5 | 48.7 | 57.6 | **57.9** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 3 | 10 | 31 | 98 |
| LDN | 3 | 9 | 29 | 92 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Rosena to Nuevo
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 15,000 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 70 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,500 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 35.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 35.7 | - - |
| HEAVY TRUCKS = | 8.01 | 35.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 67.2 | 65.3 | 63.5 | 57.5 | 66.1 | 66.7 |
| MEDIUM TRUCKS | 59.9 | 58.5 | 52.1 | 49.1 | 58.3 | 58.6 |
| HEAVY TRUCKS | 69.0 | 67.7 | 58.8 | 58.5 | 67.6 | 67.7 |
| | | | | | | |
| VEHICULAR NOISE | 71.5 | 70.0 | 65.0 | 61.3 | 70.2 | **70.6** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | 57 | 180 | 569 | 1798 |
| LDN | 53 | 166 | 526 | 1663 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Nuevo to Sierra
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 22,071 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 66 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,207 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 37.7 | - - |
| MEDIUM TRUCKS= | 4.00 | 37.6 | - - |
| HEAVY TRUCKS = | 8.01 | 37.7 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 68.7 | 66.8 | 64.9 | 59.0 | 67.6 | 68.2 |
| MEDIUM TRUCKS | 61.3 | 60.0 | 53.6 | 50.6 | 59.8 | 60.1 |
| HEAVY TRUCKS | 70.5 | 69.2 | 60.2 | 60.0 | 69.1 | 69.2 |
| | | | | | | |
| VEHICULAR NOISE | 73.0 | 71.5 | 66.4 | 62.8 | 71.7 | **72.0** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | 80 | 252 | 795 | 2515 |
| LDN | 74 | 233 | 736 | 2327 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Sierra to Wheeler
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 23,781 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 66 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,378 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 37.7 | - - |
| MEDIUM TRUCKS= | 4.00 | 37.6 | - - |
| HEAVY TRUCKS = | 8.01 | 37.7 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 69.0 | 67.1 | 65.3 | 59.3 | 67.9 | 68.5 |
| MEDIUM TRUCKS | 61.7 | 60.3 | 53.9 | 50.9 | 60.1 | 60.4 |
| HEAVY TRUCKS | 70.8 | 69.5 | 60.6 | 60.3 | 69.4 | 69.5 |
| | | | | | | |
| VEHICULAR NOISE | 73.3 | 71.8 | 66.8 | 63.1 | 72.0 | **72.3** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 86 | 271 | 857 | 2710 |
| LDN | 79 | 251 | 793 | 2507 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Wheeler to Emerald
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 12,800 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 70 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,280 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 35.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 35.7 | - - |
| HEAVY TRUCKS = | 8.01 | 35.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 66.5 | 64.6 | 62.8 | 56.8 | 65.4 | 66.0 |
| MEDIUM TRUCKS | 59.2 | 57.8 | 51.5 | 48.4 | 57.6 | 57.9 |
| HEAVY TRUCKS | 68.3 | 67.0 | 58.1 | 57.9 | 66.9 | 67.1 |
| | | | | | | |
| VEHICULAR NOISE | 70.8 | 69.3 | 64.3 | 60.6 | 69.5 | **69.9** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | 49 | 153 | 485 | 1534 |
| LDN | 45 | 142 | 449 | 1419 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Arrow Blvd
SEGMENT Emerald to Mango
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 16,300 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 70 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,630 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 35.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 35.7 | - - |
| HEAVY TRUCKS = | 8.01 | 35.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 67.6 | 65.7 | 63.8 | 57.9 | 66.5 | 67.1 |
| MEDIUM TRUCKS | 60.2 | 58.9 | 52.5 | 49.5 | 58.7 | 59.0 |
| HEAVY TRUCKS | 69.4 | 68.1 | 59.2 | 58.9 | 68.0 | 68.1 |
| | | | | | | |
| VEHICULAR NOISE | 71.9 | 70.4 | 65.3 | 61.7 | 70.6 | **70.9** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 62 | 195 | 618 | 1954 |
| LDN | 57 | 181 | 572 | 1807 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Ceres Ave
SEGMENT Nuevo to Sierra
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 2,519 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 30 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 252 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 47.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 47.7 | - - |
| HEAVY TRUCKS = | 8.01 | 47.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 54.0 | 52.1 | 50.3 | 44.3 | 52.9 | 53.5 |
| MEDIUM TRUCKS | 48.6 | 47.2 | 40.9 | 37.8 | 47.0 | 47.3 |
| HEAVY TRUCKS | 58.7 | 57.4 | 48.4 | 48.2 | 57.3 | 57.4 |
| | | | | | | |
| VEHICULAR NOISE | 60.3 | 58.8 | 52.8 | 50.0 | 58.9 | **59.2** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 4 | 13 | 41 | 131 |
| LDN | 4 | 12 | 39 | 123 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Foothill Blvd
SEGMENT Juniper to Sierra
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 27,636 |
| SPEED = | 45 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 50 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,764 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 43.4 | - - |
| MEDIUM TRUCKS= | 4.00 | 43.3 | - - |
| HEAVY TRUCKS = | 8.01 | 43.4 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 72.2 | 70.3 | 68.4 | 62.5 | 71.1 | 71.7 |
| MEDIUM TRUCKS | 63.4 | 62.0 | 55.7 | 52.6 | 61.8 | 62.1 |
| HEAVY TRUCKS | 71.9 | 70.6 | 61.6 | 61.4 | 70.4 | 70.6 |
| | | | | | | |
| VEHICULAR NOISE | 75.3 | 73.7 | 69.5 | 65.2 | 74.0 | **74.4** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 139 | 439 | 1388 | 4389 |
| LDN | 127 | 401 | 1269 | 4012 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Foothill Blvd
SEGMENT Sierra to Mango
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 23,700 |
| SPEED = | 45 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 60 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,370 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 40.1 | - - |
| MEDIUM TRUCKS= | 4.00 | 40.0 | - - |
| HEAVY TRUCKS = | 8.01 | 40.1 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 71.9 | 70.0 | 68.1 | 62.1 | 70.8 | 71.4 |
| MEDIUM TRUCKS | 63.1 | 61.7 | 55.3 | 52.3 | 61.5 | 61.8 |
| HEAVY TRUCKS | 71.5 | 70.2 | 61.3 | 61.1 | 70.1 | 70.2 |
| | | | | | | |
| VEHICULAR NOISE | 75.0 | 73.4 | 69.1 | 64.9 | 73.7 | **74.1** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 129 | 407 | 1288 | 4073 |
| LDN | 118 | 372 | 1177 | 3723 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Juniper Ave
SEGMENT Foothill to Upland
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 14,900 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 42 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,490 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.5 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.4 | - - |
| HEAVY TRUCKS = | 8.01 | 45.5 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 66.2 | 64.3 | 62.4 | 56.4 | 65.1 | 65.7 |
| MEDIUM TRUCKS | 58.8 | 57.4 | 51.1 | 48.0 | 57.3 | 57.5 |
| HEAVY TRUCKS | 68.0 | 66.7 | 57.7 | 57.5 | 66.5 | 66.7 |
| | | | | | | |
| VEHICULAR NOISE | 70.5 | 69.0 | 63.9 | 60.3 | 69.2 | **69.5** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 44 | 141 | 445 | 1407 |
| LDN | 41 | 130 | 412 | 1302 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Juniper Ave
SEGMENT Upland to Arrow
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 19,900 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 40 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,990 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.9 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.8 | - - |
| HEAVY TRUCKS = | 8.01 | 45.9 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 67.4 | 65.5 | 63.6 | 57.6 | 66.3 | 66.9 |
| MEDIUM TRUCKS | 60.0 | 58.7 | 52.3 | 49.2 | 58.5 | 58.7 |
| HEAVY TRUCKS | 69.2 | 67.9 | 58.9 | 58.7 | 67.7 | 67.9 |
| | | | | | | |
| VEHICULAR NOISE | 71.7 | 70.2 | 65.1 | 61.5 | 70.4 | **70.7** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 59 | 186 | 588 | 1861 |
| LDN | 54 | 172 | 544 | 1721 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Juniper Ave
SEGMENT Arrow to Valencia
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 14,995 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 36 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,499 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 46.7 | - - |
| MEDIUM TRUCKS= | 4.00 | 46.7 | - - |
| HEAVY TRUCKS = | 8.01 | 46.7 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 66.1 | 64.2 | 62.3 | 56.3 | 65.0 | 65.6 |
| MEDIUM TRUCKS | 58.7 | 57.3 | 51.0 | 47.9 | 57.2 | 57.4 |
| HEAVY TRUCKS | 67.9 | 66.6 | 57.6 | 57.4 | 66.4 | 66.6 |
| | | | | | | |
| VEHICULAR NOISE | 70.4 | 68.9 | 63.8 | 60.2 | 69.1 | **69.4** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 44 | 138 | 436 | 1378 |
| LDN | 40 | 127 | 403 | 1274 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Mango Ave
SEGMENT Foothill to Upland
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 11,300 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 40 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,130 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.9 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.8 | - - |
| HEAVY TRUCKS = | 8.01 | 45.9 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 64.9 | 63.0 | 61.2 | 55.2 | 63.8 | 64.4 |
| MEDIUM TRUCKS | 57.6 | 56.2 | 49.8 | 46.8 | 56.0 | 56.3 |
| HEAVY TRUCKS | 66.7 | 65.4 | 56.5 | 56.2 | 65.3 | 65.4 |
| | | | | | | |
| VEHICULAR NOISE | 69.2 | 67.7 | 62.7 | 59.0 | 67.9 | **68.2** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 33 | 106 | 334 | 1057 |
| LDN | 31 | 98 | 309 | 978 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Mango Ave
SEGMENT Upland to Valencia
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 13,191 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 38 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,319 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 46.3 | - - |
| MEDIUM TRUCKS= | 4.00 | 46.3 | - - |
| HEAVY TRUCKS = | 8.01 | 46.3 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 65.5 | 63.7 | 61.8 | 55.8 | 64.4 | 65.0 |
| MEDIUM TRUCKS | 58.2 | 56.8 | 50.5 | 47.4 | 56.6 | 56.9 |
| HEAVY TRUCKS | 67.4 | 66.1 | 57.1 | 56.9 | 65.9 | 66.1 |
| | | | | | | |
| VEHICULAR NOISE | 69.9 | 68.3 | 63.3 | 59.7 | 68.5 | **68.9** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 39 | 122 | 387 | 1222 |
| LDN | 36 | 113 | 358 | 1131 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Mango Ave
SEGMENT Valencia to Merrill
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 19,400 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 38 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,940 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 46.3 | - - |
| MEDIUM TRUCKS= | 4.00 | 46.3 | - - |
| HEAVY TRUCKS = | 8.01 | 46.3 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 67.2 | 65.3 | 63.5 | 57.5 | 66.1 | 66.7 |
| MEDIUM TRUCKS | 59.9 | 58.5 | 52.1 | 49.1 | 58.3 | 58.6 |
| HEAVY TRUCKS | 69.0 | 67.7 | 58.8 | 58.5 | 67.6 | 67.7 |
| | | | | | | |
| VEHICULAR NOISE | 71.5 | 70.0 | 65.0 | 61.3 | 70.2 | **70.6** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 57 | 180 | 568 | 1798 |
| LDN | 53 | 166 | 526 | 1663 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Merrill Ave
SEGMENT Juniper to Mango
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 16,061 |
| SPEED = | 40 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 42 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,606 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.5 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.4 | - - |
| HEAVY TRUCKS = | 8.01 | 45.5 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 68.1 | 66.3 | 64.4 | 58.4 | 67.0 | 67.6 |
| MEDIUM TRUCKS | 60.0 | 58.7 | 52.3 | 49.3 | 58.5 | 58.8 |
| HEAVY TRUCKS | 68.8 | 67.5 | 58.6 | 58.3 | 67.4 | 67.5 |
| | | | | | | |
| VEHICULAR NOISE | 71.8 | 70.3 | 65.6 | 61.7 | 70.5 | **70.9** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | 61 | 194 | 612 | 1936 |
| LDN | 56 | 178 | 563 | 1780 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Nuevo Blvd
SEGMENT Arrow to Valencia
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 11,076 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 18 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,108 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 49.3 | - - |
| MEDIUM TRUCKS= | 4.00 | 49.2 | - - |
| HEAVY TRUCKS = | 8.01 | 49.3 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 60.3 | 58.4 | 56.6 | 50.6 | 59.2 | 59.8 |
| MEDIUM TRUCKS | 54.9 | 53.5 | 47.2 | 44.1 | 53.3 | 53.6 |
| HEAVY TRUCKS | 65.0 | 63.7 | 54.7 | 54.5 | 63.6 | 63.7 |
| | | | | | | |
| VEHICULAR NOISE | 66.6 | 65.1 | 59.1 | 56.3 | 65.2 | **65.5** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 18 | 56 | 177 | 558 |
| LDN | 17 | 52 | 166 | 524 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Nuevo Blvd
SEGMENT Valencia to Orange
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 10,600 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 18 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,060 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 49.3 | - - |
| MEDIUM TRUCKS= | 4.00 | 49.2 | - - |
| HEAVY TRUCKS = | 8.01 | 49.3 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 64.3 | 62.4 | 60.6 | 54.6 | 63.2 | 63.8 |
| MEDIUM TRUCKS | 57.0 | 55.6 | 49.2 | 46.2 | 55.4 | 55.7 |
| HEAVY TRUCKS | 66.1 | 64.8 | 55.9 | 55.7 | 64.7 | 64.9 |
| | | | | | | |
| VEHICULAR NOISE | 68.6 | 67.1 | 62.1 | 58.4 | 67.3 | **67.7** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 29 | 92 | 292 | 924 |
| LDN | 27 | 85 | 270 | 855 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Orange Blvd
SEGMENT Nuevo to Sierra
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 15,482 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 42 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,548 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.5 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.4 | - - |
| HEAVY TRUCKS = | 8.01 | 45.5 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 66.3 | 64.4 | 62.6 | 56.6 | 65.2 | 65.8 |
| MEDIUM TRUCKS | 59.0 | 57.6 | 51.2 | 48.2 | 57.4 | 57.7 |
| HEAVY TRUCKS | 68.1 | 66.8 | 57.9 | 57.7 | 66.7 | 66.8 |
| | | | | | | |
| VEHICULAR NOISE | 70.6 | 69.1 | 64.1 | 60.4 | 69.3 | **69.7** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 46 | 146 | 462 | 1462 |
| LDN | 43 | 135 | 428 | 1353 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Orange Blvd
SEGMENT Sierra to Wheeler
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 13,137 |
| SPEED = | 35 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 40 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,314 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.9 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.8 | - - |
| HEAVY TRUCKS = | 8.01 | 45.9 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 65.6 | 63.7 | 61.8 | 55.8 | 64.5 | 65.1 |
| MEDIUM TRUCKS | 58.2 | 56.8 | 50.5 | 47.4 | 56.7 | 56.9 |
| HEAVY TRUCKS | 67.4 | 66.1 | 57.1 | 56.9 | 65.9 | 66.1 |
| | | | | | | |
| VEHICULAR NOISE | 69.9 | 68.4 | 63.3 | 59.7 | 68.6 | **68.9** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 39 | 123 | 388 | 1228 |
| LDN | 36 | 114 | 359 | 1136 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Randall Ave
SEGMENT Juniper to Mango
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 8,381 |
| SPEED = | 40 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 48 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 838 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 44.0 | - - |
| MEDIUM TRUCKS= | 4.00 | 43.9 | - - |
| HEAVY TRUCKS = | 8.01 | 44.0 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 65.5 | 63.6 | 61.7 | 55.7 | 64.4 | 65.0 |
| MEDIUM TRUCKS | 57.4 | 56.0 | 49.6 | 46.6 | 55.8 | 56.1 |
| HEAVY TRUCKS | 66.1 | 64.9 | 55.9 | 55.7 | 64.7 | 64.9 |
| | | | | | | |
| VEHICULAR NOISE | 69.1 | 67.6 | 63.0 | 59.0 | 67.8 | **68.2** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 33 | 105 | 331 | 1045 |
| LDN | 30 | 96 | 304 | 961 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Foothill to Upland
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 25,880 |
| SPEED = | 30 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 50 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,588 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 43.4 | - - |
| MEDIUM TRUCKS= | 4.00 | 43.3 | - - |
| HEAVY TRUCKS = | 8.01 | 43.4 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 66.8 | 64.9 | 63.1 | 57.1 | 65.7 | 66.3 |
| MEDIUM TRUCKS | 60.4 | 59.0 | 52.6 | 49.6 | 58.8 | 59.1 |
| HEAVY TRUCKS | 69.9 | 68.7 | 59.7 | 59.5 | 68.5 | 68.7 |
| | | | | | | |
| VEHICULAR NOISE | 72.0 | 70.5 | 65.0 | 61.7 | 70.6 | **71.0** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | 62 | 197 | 623 | 1969 |
| LDN | 58 | 183 | 580 | 1835 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Upland to Arrow
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 20,000 |
| SPEED = | 30 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 38 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,000 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 46.3 | - - |
| MEDIUM TRUCKS= | 4.00 | 46.3 | - - |
| HEAVY TRUCKS = | 8.01 | 46.3 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 65.4 | 63.5 | 61.7 | 55.7 | 64.3 | 64.9 |
| MEDIUM TRUCKS | 59.0 | 57.6 | 51.2 | 48.2 | 57.4 | 57.7 |
| HEAVY TRUCKS | 68.5 | 67.3 | 58.3 | 58.1 | 67.1 | 67.3 |
| | | | | | | |
| VEHICULAR NOISE | 70.6 | 69.1 | 63.6 | 60.3 | 69.2 | **69.5** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 45 | 143 | 451 | 1425 |
| LDN | 42 | 133 | 420 | 1328 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Arrow to Valencia
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 0 |
| SPEED = | 30 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 42 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 0 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.5 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.4 | - - |
| HEAVY TRUCKS = | 8.01 | 45.5 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! |
| MEDIUM TRUCKS | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! |
| HEAVY TRUCKS | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! |
| | | | | | | |
| VEHICULAR NOISE | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! | **#NUM!** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | #NUM! | #NUM! | #NUM! | #NUM! |
| LDN | #NUM! | #NUM! | #NUM! | #NUM! |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Valencia to Orange
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 0 |
| SPEED = | 30 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 40 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 0 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 45.9 | - - |
| MEDIUM TRUCKS= | 4.00 | 45.8 | - - |
| HEAVY TRUCKS = | 8.01 | 45.9 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! |
| MEDIUM TRUCKS | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! |
| HEAVY TRUCKS | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! |
| | | | | | | |
| VEHICULAR NOISE | #NUM! | #NUM! | #NUM! | #NUM! | #NUM! | **#NUM!** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | #NUM! | #NUM! | #NUM! | #NUM! |
| LDN | #NUM! | #NUM! | #NUM! | #NUM! |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Orange to Merrill
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 22,612 |
| SPEED = | 30 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 60 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,261 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 40.1 | - - |
| MEDIUM TRUCKS= | 4.00 | 40.0 | - - |
| HEAVY TRUCKS = | 8.01 | 40.1 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 66.6 | 64.7 | 62.8 | 56.9 | 65.5 | 66.1 |
| MEDIUM TRUCKS | 60.1 | 58.8 | 52.4 | 49.3 | 58.6 | 58.8 |
| HEAVY TRUCKS | 69.7 | 68.4 | 59.5 | 59.2 | 68.3 | 68.4 |
| | | | | | | |
| VEHICULAR NOISE | 71.7 | 70.3 | 64.7 | 61.5 | 70.4 | **70.7** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | **70 dBA** | **65 dBA** | **60 dBA** | **55 dBA** |
| CNEL | 59 | 186 | 589 | 1862 |
| LDN | 55 | 173 | 549 | 1735 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Merrill to Athol
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 25,200 |
| SPEED = | 40 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 45 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 2,520 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 44.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 44.7 | - - |
| HEAVY TRUCKS = | 8.01 | 44.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 70.2 | 68.3 | 66.4 | 60.5 | 69.1 | 69.7 |
| MEDIUM TRUCKS | 62.1 | 60.7 | 54.3 | 51.3 | 60.5 | 60.8 |
| HEAVY TRUCKS | 70.8 | 69.6 | 60.6 | 60.4 | 69.4 | 69.6 |
| | | | | | | |
| VEHICULAR NOISE | 73.8 | 72.3 | 67.7 | 63.7 | 72.5 | **72.9** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 98 | 309 | 976 | 3087 |
| LDN | 90 | 284 | 898 | 2838 |

# FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: Downtown Fontana FBC Districts
ROADWAY Sierra Ave
SEGMENT Athol to Randall
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 32,688 |
| SPEED = | 40 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 52 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 3,269 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 42.8 | - - |
| MEDIUM TRUCKS= | 4.00 | 42.7 | - - |
| HEAVY TRUCKS = | 8.01 | 42.8 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 71.5 | 69.6 | 67.8 | 61.8 | 70.4 | 71.0 |
| MEDIUM TRUCKS | 63.4 | 62.0 | 55.7 | 52.6 | 61.8 | 62.1 |
| HEAVY TRUCKS | 72.2 | 70.9 | 61.9 | 61.7 | 70.7 | 70.9 |
| | | | | | | |
| VEHICULAR NOISE | 75.2 | 73.6 | 69.0 | 65.0 | 73.9 | **74.2** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 132 | 419 | 1324 | 4186 |
| LDN | 122 | 385 | 1217 | 3848 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Valencia Blvd
SEGMENT Juniper to Sierra
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 2,157 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 28 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 216 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 48.1 | - - |
| MEDIUM TRUCKS= | 4.00 | 48.0 | - - |
| HEAVY TRUCKS = | 8.01 | 48.1 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 53.3 | 51.4 | 49.6 | 43.6 | 52.2 | 52.8 |
| MEDIUM TRUCKS | 47.9 | 46.5 | 40.2 | 37.1 | 46.3 | 46.6 |
| HEAVY TRUCKS | 58.0 | 56.7 | 47.7 | 47.5 | 56.5 | 56.7 |
| | | | | | | |
| VEHICULAR NOISE | 59.6 | 58.1 | 52.1 | 49.3 | 58.2 | **58.5** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 4 | 11 | 35 | 111 |
| LDN | 3 | 10 | 33 | 105 |

**FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO**

PROJECT: Downtown Fontana FBC Districts
ROADWAY Wheeler Blvd
SEGMENT Arrow to Valencia
LOCATION: Vermont Ave., Los Angeles, CA SCENARIO: Buildout Alternative 1

JOB #: 0462-2020-22
DATE: 12-Jan-23
ENGINEER: C. Pincock

## NOISE INPUT DATA

### ROADWAY CONDITIONS

| | |
|---|---|
| ADT = | 11,224 |
| SPEED = | 25 |
| PK HR % = | 10 |
| NEAR LANE/FAR LANE DIST = | 24 |
| ROAD ELEVATION = | 0 |
| GRADE = | 0 |
| PK HR VOL = | 1,122 |

### RECEIVER INPUT DATA

| | | |
|---|---|---|
| RECEIVER DISTANCE = | | 50 |
| DIST C/L TO WALL = | | 0 |
| RECEIVER HEIGHT = | | 5 |
| WALL DISTANCE FROM RECEIVER = | | 50 |
| PAD ELEVATION = | | 0 |
| ROADWAY VIEW: | LF ANGLE | -90 |
| | RT ANGLE | 90 |
| | DF ANGLE | 180 |

### SITE CONDITIONS

| | | |
|---|---|---|
| AUTOMOBILES | 10 | |
| MED TRUCKS | 10 | (HARD SITE=10, SOFT SITE=15) |
| HVY TRUCKS | 10 | |

### WALL INFORMATION

| | | |
|---|---|---|
| HTH WALL = | 0 | FT |
| AMBIENT = | 0 | |
| BARRIER = | 0 | (0=WALL,1=BERM) |

### VEHICLE MIX DATA

| VEHICLE TYPE | DAY | EVE | NIGHT | DAILY |
|---|---|---|---|---|
| AUTOMOBILES | 0.777 | 0.127 | 0.096 | 0.936 |
| MEDIUM TRUCKS | 0.874 | 0.051 | 0.075 | 0.018 |
| HEAVY TRUCKS | 0.891 | 0.028 | 0.081 | 0.046 |

### MISC. VEHICLE INFO

| VEHICLE TYPE | HEIGHT | SLE DISTANCE | GRADE ADJUSTMENT |
|---|---|---|---|
| AUTOMOBILES = | 2.00 | 48.6 | - - |
| MEDIUM TRUCKS= | 4.00 | 48.5 | - - |
| HEAVY TRUCKS = | 8.01 | 48.6 | 0.0 |

## NOISE OUTPUT DATA

### *NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)*

| VEHICLE TYPE | PK HR LEQ | DAY LEQ | EVEN LEQ | NIGHT LEQ | LDN | CNEL |
|---|---|---|---|---|---|---|
| AUTOMOBILES | 60.4 | 58.5 | 56.7 | 50.7 | 59.3 | 59.9 |
| MEDIUM TRUCKS | 55.0 | 53.6 | 47.3 | 44.2 | 53.5 | 53.7 |
| HEAVY TRUCKS | 65.1 | 63.8 | 54.9 | 54.6 | 63.7 | 63.8 |
| | | | | | | |
| VEHICULAR NOISE | 66.7 | 65.2 | 59.2 | 56.4 | 65.3 | **65.6** |

| NOISE CONTOUR (FT) | | | | |
|---|---|---|---|---|
| NOISE LEVELS | 70 dBA | 65 dBA | 60 dBA | 55 dBA |
| CNEL | 18 | 57 | 181 | 573 |
| LDN | 17 | 54 | 170 | 538 |