Appendix G Noise Study

# Land Use Plan and Zoning Amendments Project Noise Impact Study City of Gardena, CA

Prepared for:

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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

Located in the South Bay region of Los Angeles County, 13 miles south of downtown Los Angeles, Gardena is an urban community encompassing 5.7 square miles. Gardena is situated near four major freeways: Harbor (I-110), San Diego (I-405), Century (I-105), and Artesia (SR-91). Surrounding communities are Hawthorne and Los Angeles County to the north and west, Torrance to the south and west, and Los Angeles to the south and east.

### **1.3** Proposed Project Description

The Project proposes to amend the Land Use Plan of the Community Development Element of the General Plan with the addition of new land use designations. Other technical updates will be added to reflect changes that have occurred since 2006. Additionally, new zones will be created to provide consistency with the Land Use Plan update. The Project proposes to rescind the Artesia Corridor Specific Plan (ACSP). If approved, development of the parcels would no longer be governed by the ACSP and the parcels would be re-designated and re-zoned.

The Gardena Land Use Policy Map and Zoning Map will be amended to apply the new land use designations and zones to specific parcels, resolve split-zoned parcels, and resolve inconsistencies between the zones and existing on-site conditions. For a majority of the parcels the proposed amendments allow for new residential development or increased residential development when compared to existing conditions. There is no increased development capacity for those parcels to be redesignated or rezoned only to resolve inconsistencies with existing on-site conditions. Some of the site-specific redesignations and modifications proposed to the land use categories and corresponding

zones would result in reductions in allowed residential densities and residential development potential when compared to the existing General Plan land use and land use categories; however, overall the proposed Project would provide for increased residential densities and increased residential development potential and would be in compliance with the Housing Crisis Act.

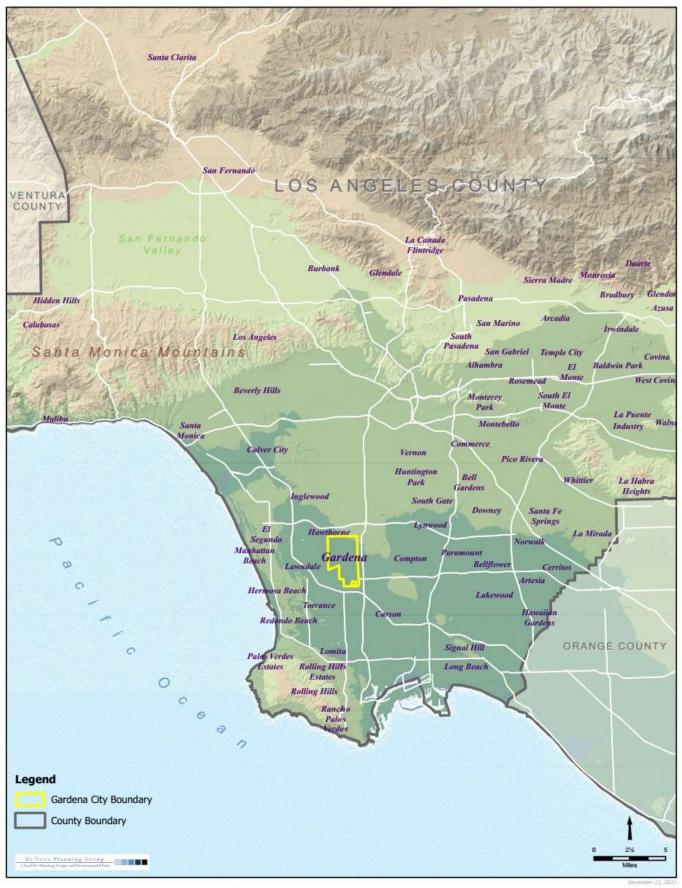
#### 1.4 Existing Land Uses

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 7.5 million square feet of non-resdential building and 1,115 dwelling units.

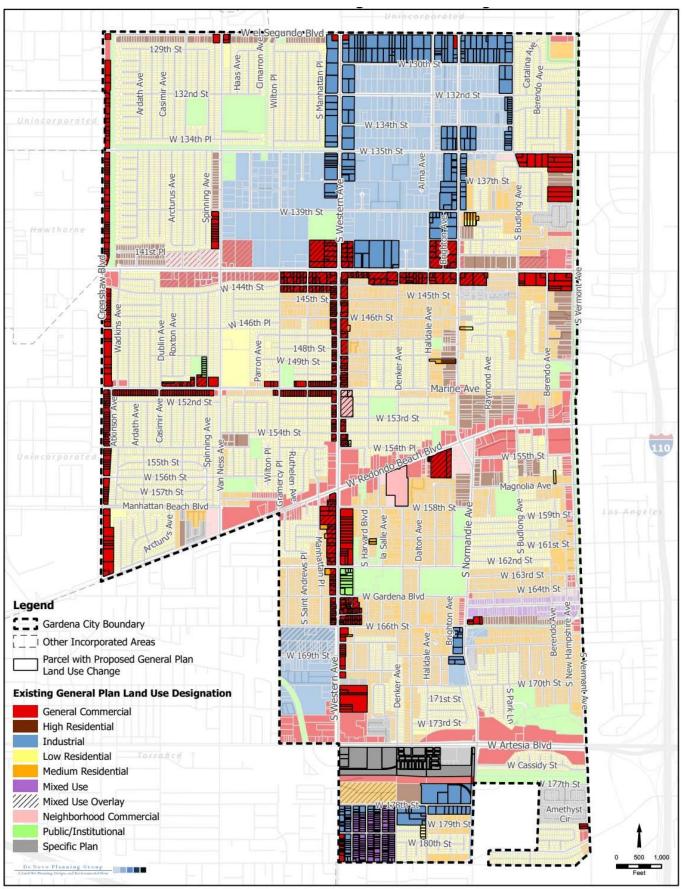
	Development	
Land Use	Dwelling	Building
	Units	Square Feet
Single-Family Residential	154	
Multiple-Family Residential <sup>1</sup>	961	
Commercial <sup>2</sup>		2,048,845
Education		45,161
Government and Utilities Facilities		1,300
Office		224,225
Office/Industrial		38,770
Hospital		214,782
Industrial <sup>3</sup>		4,914,486
Religious		55,758
Transportation, Communication, Utilities		1,054
Total	1,115	7,544,381
Source: City of Gardena, November 22, 2022. Notes: 1. Includes residential units associated with Mixed Residential and Commercial 2. Includes currently vacant commercial buildings 3. Includes currently vacant industrial buildings		

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

# Exhibit A Regional Location

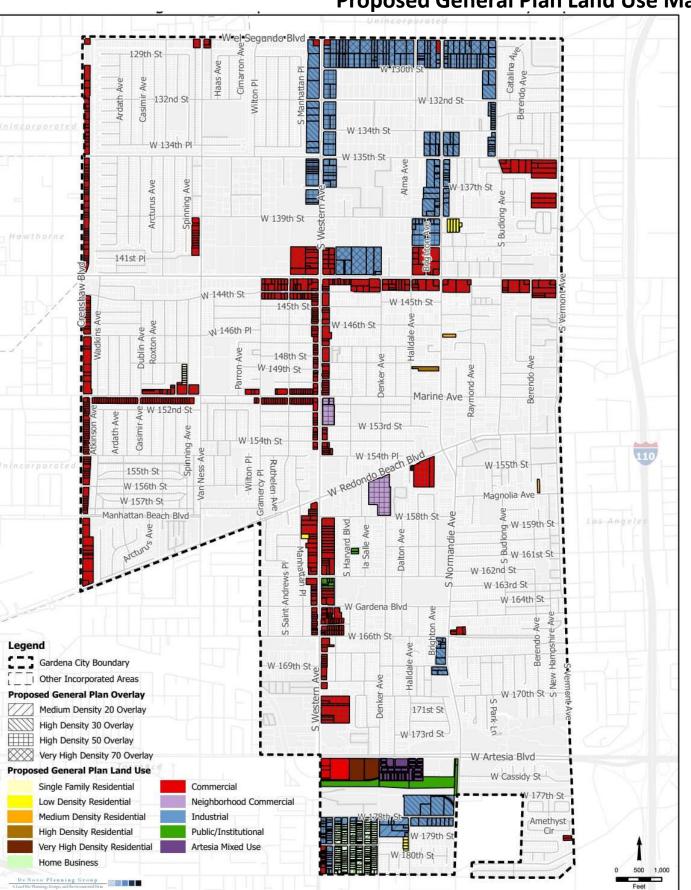


# Exhibit B Existing General Plan Land Use Map

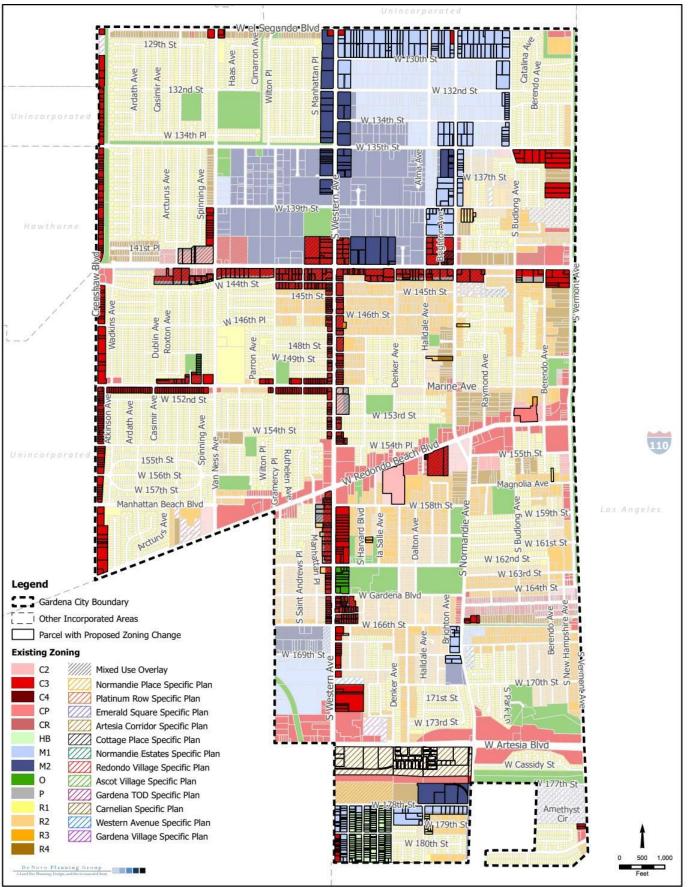


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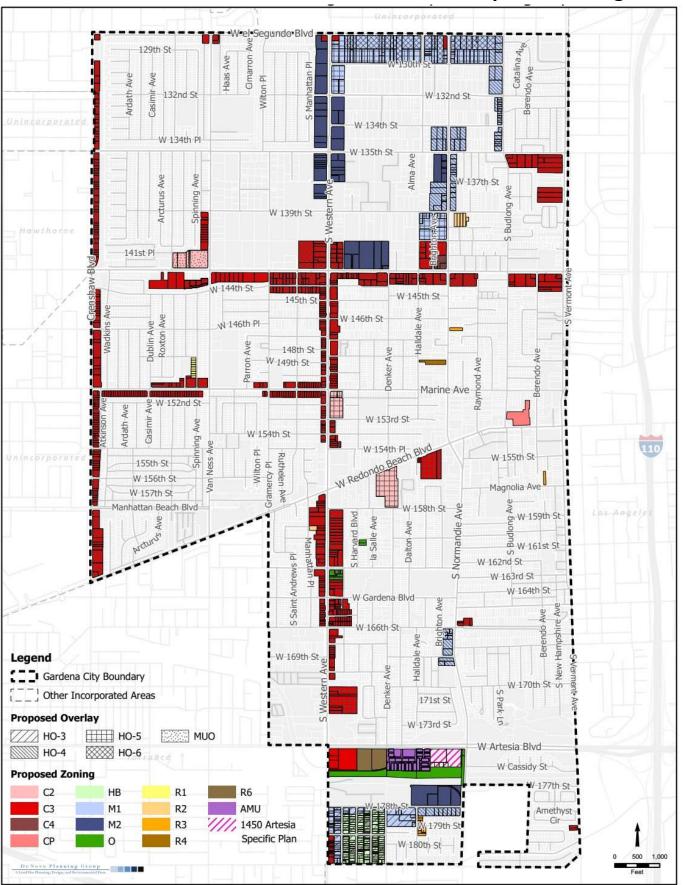
Exhibit C



# Exhibit D Existing Zoning Districts



# Exhibit E Proposed Zoning Districts



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# 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<sup>2</sup>), also called micro-Pascal ( $\mu$ Pa). One  $\mu$ Pa is approximately one hundred billionths (0.0000000001) of normal atmospheric pressure. Sound pressure level (SPL or L<sub>p</sub>) 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.

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				

#### Table 2: Decibel Addition

### 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.

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	60	Normal speech at 3 feet
Heavy traffic at 300 feet	60	Lavas Dusinass Office
Quiat urban dautima	50	Large Business Office Dishwasher in next room
Quiet urban daytime	50	Distiwastier in fiext 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.		

#### **Table 3: Typical Noise Levels**

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.

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.		

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

#### 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.

<u>A-Weighted Sound Level</u>: 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.

<u>Ambient Noise Level</u>: 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 24hour 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 micropascals.

**<u>dBA</u>**: 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.

<u>L(n)</u>: 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.

**<u>Noise</u>**: Any 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 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.

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

<u>Single Event Noise Exposure Level (SENEL)</u>: 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.

Construction Type	Typical Occupancy General Description		Range of Noise Reduction (dB) <sup>1</sup>
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
		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.			

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

### 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.

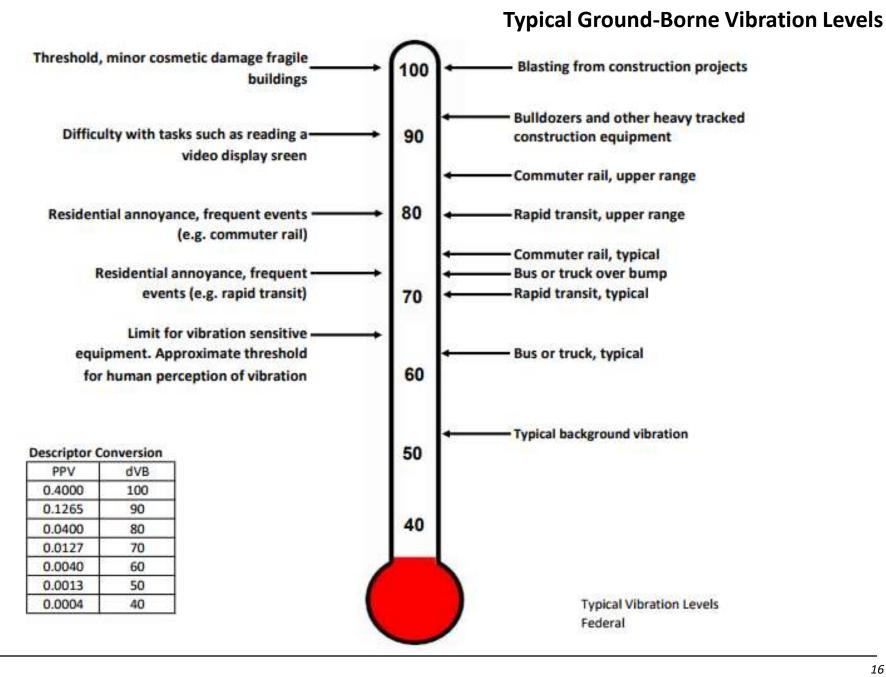
RMS – Known as root mean squared (RMS) can be used to denote vibration amplitude

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

Vibration Level 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.			

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

# Exhibit F



### 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.

		Design Noise Levels <sup>1</sup>				
Activity Category	Description of Category	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)			
В	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.	67 (exterior)	70 (exterior)			
С	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 projectgenerated 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).

### 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 Gardena

Existing planning policies and noise regulations applicable to noise within the City of Gardena are presented in the Noise Plan of the City of Gardena General Plan 2006 and within the City of Gardena Municipal Code. Applicable goals, policies, and regulations are presented below.

#### 4.3.1 City of Gardena General Plan 2006

#### General Plan Goals, Policies and Actions

The 2006 General Plan Noise Plan 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.

**N Goal 1:** Use noise control measures to reduce the impact from transportation noise sources.

Policies

N 1.1: Minimize noise conflicts between land uses and the circulation network, and mitigate sound levels where necessary or feasible to ensure the peace and quiet of the community. N 1.2: Reduce unnecessary traffic volumes in residential neighborhoods by limiting

throughways and by facilitating the use of alternative routes around, rather than through, neighborhoods.

N 1.3: Promote the use of new technologies to minimize traffic noise, such as use of rubberized asphalt in road surface materials.

N 1.4: Promote the use of traffic calming measures where appropriate, such as narrow roadways and on street parking, in commercial and mixed-use districts.

N 1.5: Reduce noise impacts from vehicles, particularly in residential area through enforcement of speed limits on arterials and local roads.

N 1.6: Require compliance with State's Vehicle Code noise standards within the City.

N 1.7: Ensure the effective enforcement of City, State and Federal noise standards by all City Divisions.

N 1.8: Encourage walking, biking, carpooling, use of public transit and other alternative modes of transportation to minimize vehicular use and associated traffic noise.

N 1.9: Encourage, where feasible and reasonable, noise mitigation measures, such as noise barriers and realignments, in the design and construction of new roadway projects in Gardena. N 1.10: Consider noise impacts to residential neighborhoods when designating truck routes and major circulation corridors.

N 1.11: Maintain bus routes that meet public transportation needs and minimize noise impacts in residential areas.

N 1.12: Encourage the Public Utilities Commission and Union Pacific to minimize the level of noise produced by train movements and horns within Gardena by reducing speeds, improving vehicle system technology and developing improved procedures for train engineer horn sounding.

N 1.13: Encourage Gardena citizen participation and City involvement on committees that would influence future aircraft and railroad operations in Los Angeles County.

N 1.14: Participate in the planning and impact assessment activities of the County Airport Land Use Commission and other regional or State agencies relative to any proposed expansion or change in flight patterns at the Hawthorne Municipal Airport or the Compton Airport.

**N Goal 2**: Incorporate noise considerations into land use planning decisions.

N 2.1: Promote noise regulations that establish acceptable noise standards for various land uses throughout Gardena.

N 2.2: Require noise/land use compatibility standards to guide future planning and development.

N 2.3: Promote compliance with the State's noise insulation standards in the conversion of existing apartments into condominiums wherever feasible.

N 2.4: Require mitigation of all significant noise impacts as a condition of project approval. N 2.5: Require proposed projects to be reviewed for compatibility with nearby noisesensitive land uses with the intent of reducing noise impacts.

N 2.6: Require new residential developments located in proximity to existing commercial/ industrial operations to control residential interior noise levels as a condition of approval and minimize exposure of residents in the site design.

N 2.7: Require new commercial/industrial operations located in proximity to existing or proposed residential areas to incorporate noise mitigation into the project design.

N 2.8: Require that mixed-use structures and areas be designed to prevent transfer of noise and vibration from commercial areas to residential areas.

N 2.9: Encourage the creative use of site and building design techniques as a means to minimize noise impacts.

N 2.10: Promote replacement of significant noise sources with non-noise-generating land uses when plans for future use of areas are developed

N 2.11: Require the County of Los Angeles, the City of Hawthorne, the City of Los Angeles, and the City of Torrance to minimize or avoid land use/noise conflicts prior to project approvals.

**N Goal 3**: Develop measures to control non-transportation noise impacts.

N 3.1: Require compliance with a quantitative noise ordinance based on the Model Noise Ordinance developed by the (now-defunct) State of California Office of Noise Control.

N 3.2: Require compliance with noise regulations. Review and update Gardena's policies and regulations affecting noise.

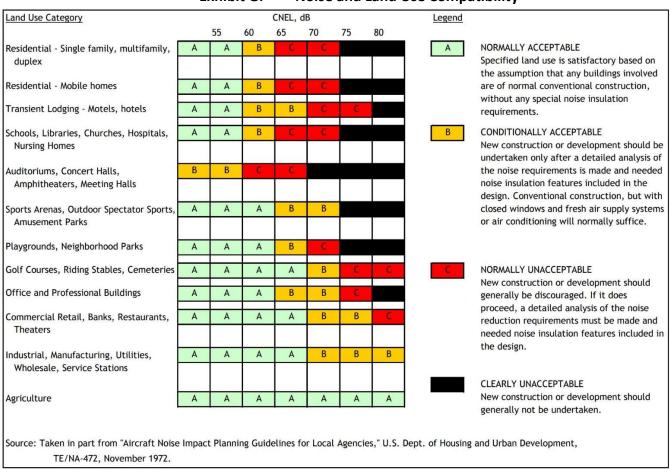
N 3.3: Require compliance with construction hours to minimize the impacts of construction noise on adjacent land.

N 3.4: Require new equipment and vehicles purchased by the City to comply with noise performance standards consistent with available noise reduction technology. N 3.5: Require City departments to observe State and Federal occupational safety and health noise standards.

#### Noise/Land Use Compatibility

Exhibit G, Noise and Land Use Compatibility (Figure N-1 of the General Plan) presents a land use compatibility chart for community noise derived from a similar table originally prepared by the California Office of Noise Control (2017). The table identifies "normally acceptable," "conditionally acceptable,"

"normally unacceptable," and "clearly unacceptable" exterior noise levels for various land uses. A "conditionally acceptable" designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use is made and needed noise insulation features are incorporated in the design. By comparison, a "normally acceptable" designation indicates that standard construction can occur with no special noise reduction requirements. This land use compatibility chart is based on the 24-hour descriptor CNEL.



#### Exhibit G: Noise and Land Use Compatibility

# 4.3.2 City of Gardena 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 Gardena's Noise Ordinance consists of Chapter 8.36 of the Gardena Municipal Code. These sections include noise-related definitions, presents exterior and interior noise standards, outlines the City's noise measurement procedure, lists specifically prohibited noises and exemptions, and discusses consequences for violation of the code.

Section 8.36.030 states that it is unlawful to make noise which disturbs the peace and quiet of any neighborhood or person of normal sensitivity.

Section 8.36.040 outlines the exterior noise standards as presented in Table 8 below.

		Allowable Exte	rior Noise Level			
Type of Land Use	15-Minute Average	e Noise Level (Leq)	q) Maximum Noise Level (Lmax			
	7 a.m. to 10 p.m.	10 p.m. to 7 am	7 a.m. to 10 p.m.	10 p.m. to 7 am		
Residential	55 dB(A)	50 dB(A)	75 dB(A)	70 dB(A)		
Residential portions of mixed-use	60 dB(A)	50 dB(A)	80 dB(A)	70 dB(A)		
Commercial	65 dB(A)	60 dB(A)	85 dB(A)	80 dB(A)		
Industrial or manufacturing	70 dB(A)	70 dB(A)	90 dB(A)	90 dB(A)		

#### **Table 8: Gardena Exterior Noise Standards**

This section clarifies that if the noise contains a pure tone such as a whine, screech, or hum, or contains repetitive, impulsive or impact noise such as hammering or riveting, or contains music or speech conveying informational content, each of the above noise standards shall be reduced by 5 dB. If the ambient exceeds these standards, the ambient noise level becomes the standard.

Section 8.36.050 outlines the interior noise standards as presented in Table 9 below.

#### **Table 9: Gardena Interior Noise Standards**

		Allowable External	ior Noise Level			
Type of Land Use	15-Minute Average	e Noise Level (Leq)	Maximum Noise Level (Lmax)			
	7 a.m. to 10 p.m.	10 p.m. to 7 am	7 a.m. to 10 p.m.	10 p.m. to 7 am		
Residential	45 dB(A)	40 dB(A)	65 dB(A)	60 dB(A)		
Residential portions of mixed-use	45 dB(A)	40 dB(A)	70 dB(A)	60 dB(A)		

This section also clarifies that if the noise contains a pure tone such as a whine, screech, or hum, or contains repetitive, impulsive or impact noise such as hammering or riveting, or contains music or speech conveying informational content, each of the above noise standards shall be reduced by 5 dB. If the ambient exceeds these standards, the ambient noise level becomes the standard.

Section 8.36.060 outlines the noise measurement procedure required by the City or its agent when a complaint is made.

Section 8.36.070 lists specific prohibited acts on specific devices and activities including:

- 1. Radios, Television Sets, Musical Instruments and Similar Devices.
- 2. Loudspeakers (Amplified Sound).
- 3. Street Sales.
- 4. Yelling, Shouting, Whistling and Singing.
- 5. Animals and Birds.
- 6. Loading and Unloading.
- 7. Perceptible Vibration (0.01 in/sec).
- 8. Powered Model Vehicles.
- 9. Stationary Non-Emergency Signaling Devices.
- 10. Emergency Signaling Devices.
- 11. Domestic Power Tools, Machinery.
- 12. Places of Public Entertainment.
- 13. Tampering.
- 14. Motor Vehicle Noise Limits.
- 15. Motor Vehicle Horns.
- 16. Motorized Recreational Vehicles Operating Off Public Right-of-Way.
- 17. Vehicle, Motorboat, or Aircraft Repair and Testing.
- 18. Standing Motor Vehicles.

Section 8.36.080 lists specific exemptions from this chapter which includes:

A. Emergency sound for the purpose of alerting persons to the existence of an emergency, or B. Mechanical devices, apparatus or equipment used, related to or connected with emergency machinery, vehicle or work.

C. Warning Devices necessary for the protection of public safety, as for example police, fire, and ambulance sirens, and train horns shall be exempted from the provisions of this ordinance.

D. Noise from occasional outdoor events/activities, outdoor gatherings, public dances, shows, and sporting and entertainment events, provided said events are conducted pursuant to a permit or license issued by the City relative to the staging of said event.

E. School Activities, provided said activities are conducted on the grounds of a public or private nursery, elementary, intermediate or secondary school or college.

F. Gatherings or festival activities conducted on a publicly owned and operated park or playground, pursuant to a city permit.

G. Noise associated with construction, repair, remodeling, grading or demolition of any real property, provided said activities do not take place between the hours of 6:00 p.m. and 7:00 a.m. on weekdays between the hours of 6:00 p.m. and 9:00 a.m. on Saturday or any time on Sunday or a Federal holiday.

H. Operation of refuse and recyclable collection vehicles, provided:

1. Collection of residential refuse/recyclables does not occur between the hours of 6:00 p.m. and 7:00 a.m. on Weekdays, or at any time on a weekend or holiday, except as provided below.

2. Collection from commercial premises, audible in residential areas, and which does not occur between the hours of 6:00 p.m. and 7:00 a.m. on weekdays, or at any time on a weekend or holiday, except as provided below.

3. When a collection day occurs on a holiday, alternative collections may be made on the following Saturday, between the hours of 7 a.m. and 6 p.m.

I. Federal or State Preempted Activities to the extent regulation thereof has been preempted by State or Federal law.

J. Street cleaning, parking lot sweeping and sidewalk steam cleaning activities provided the activities do not occur between the hours of 10:00 p.m. and 7:00 a.m. on weekdays or at any time on a weekend or holiday.

1. When a cleaning/sweeping day occurs on a holiday, alternative scheduling may be made on the following Saturday, between the hours of 7 a.m. and 6 p.m.

K. Pre-existing Noise Sources. Commercial and/or industrial operations in existence prior to the date of adoption of this amendment, if in compliance with local zoning statues, shall be granted a six-month period from the effective date of this ordinance to comply with the provisions of this chapter. If prior to the end of the six-month period, it can be shown that compliance with the provisions herein constitutes a hardship in terms of technical and economic feasibility, an extension of time may be granted by the City Manager.

Section 8.36.090 outlines the enforcement of this chapter.

Chapter 18.46 contains the following noise restrictions for conditional use permits:

- Large collection facilities and processing facilities in the M-1 and M-2 zones cannot exceeds 55 dBA at a residential property line and 60 dBA at all other property lines.
- Motor vehicle dealerships, including accessory repair facilities, in C-3 and C-4 zones cannot have outdoor amplified sound or interior loudspeakers above 45 dBA at residential property lines. All noise generating equipment exposed to the exterior must be muffled and cannot operation between 6PM and 8AM if disturbing.

Section 18.42.200 outlines that projects must demonstrate that HVAC units comply to Chapter 8.36 prior to building permit issuance. It also outlines specific construction noise requirements.

Section 8.20.100(G) states that compaction vehicles shall not exceed 75 dBA at 25 feet from the vehicle.

Section 8.40.070(B) requires mufflers on all internal combustion engines during drilling operations.

# 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, and 2040 with Project traffic noise level contours for the 20 segments analyzed in the Project's traffic impact analysis provided by Kittelson & Associates, 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 10 and Table 11, 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 ٠ 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) ٠
- Percentage of total ADT which flows each hour throughout a 24-hour period ٠

#### 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 10 and Table 11.

Roadway Segment		Existing ADT <sup>1</sup>	2040 No Project ADT <sup>1</sup>	2040 With Project ADT <sup>1</sup>	Speed <sup>2</sup>	Vehicle Mix <sup>3</sup>
El Segundo Blvd.	Western Ave. to Normandie Ave.	30,777	30,800	30,800	40	Heavy Arterial
135th St.	Western Ave. to Normandie Ave.	16,858	19,900	21,800	40	Major Collector
Rosecrans Ave.	Van Ness Ave. to Western Ave.	31,758	31,800	33,200	40	Arterial
Rosecrans Ave.	Western Ave. to Normandie Ave.	41,590	41,600	41,700	40	Heavy Arterial
Marine Ave.	Crenshaw Blvd. to Van Ness Ave.	17,340	19,300	20,500	35	Major Collector
Marine Ave.	Western Ave. to Normandie Ave.	18,483	20,100	19,800	30	Major Collector
Redondo Beach Blvd.	Western Ave. to Normandie Ave.	30,337	30,300	30,500	35	Arterial
Crenshaw Blvd.	El Segundo Blvd. to 135th St.	32,198	32,400	33,000	35	Heavy Arterial
Crenshaw Blvd.	135th St. to Rosecrans Ave.	27,764	29,200	29,600	40	Heavy Arterial
Crenshaw Blvd.	Rosecrans Ave. to Marine Ave.	27,485	27,500	28,400	40	Arterial
Crenshaw Blvd.	Marine Ave. to Manhattan Beach Blvd.	24,671	24,700	25,100	40	Arterial
Western Ave.	El Segundo Blvd. to 135th St.	21,028	21,600	24,000	40	Arterial
Western Ave.	135th St. to Rosecrans Ave.	22,840	25,100	25,200	40	Arterial
Western Ave.	Rosecrans Ave. to Marine Ave.	26,365	26,900	28,400	40	Arterial
Western Ave.	158th St. to 162nd St.	30,668	32,700	34,400	40	Arterial
Western Ave.	166th St. to Artesia Blvd.	31,208	33,300	34,200	40	Arterial
Western Ave.	Artesia Blvd. to 182nd St.	27705	30900	31500	40	Arterial
Normandie Ave.	135th St. to Rosecrans Ave.	19425	20200	20400	35	Major Collector
Normandie Ave.	170th St. to Artesia Blvd.	26,240	27,700	28,200	35	Major Collector
Vermont Ave.	135th St. to Rosecrans Ave.	19,881	22,500	23,100	40	Arterial

#### **Table 10: Roadway Noise Modeling Parameters**

2) Speed was modeled as posted.

3) See Table 11

	Daytime %	Evening %	Night %	Total % of
Motor-Vehicle Type <sup>1,2</sup>	(7AM to 7 PM)	(7 PM to 10 PM)	(10 PM to 7 AM)	Traffic Flow
Existing Arterial		I		
Automobiles	78.3%	10.9%	10.8%	96.4%
Medium Trucks	78.1%	5.9%	16.0%	1.0%
Heavy Trucks	67.4%	6.9%	25.7%	2.6%
Existing Arterial 2			· · · ·	
Automobiles	75.1%	10.8%	14.2%	96.3%
Medium Trucks	73.6%	5.8%	20.7%	1.0%
Heavy Trucks	61.4%	6.5%	32.1%	2.7%
Existing Collector			· · · ·	
Automobiles	80.0%	9.6%	10.5%	96.4%
Medium Trucks	79.3%	5.2%	15.5%	1.0%
Heavy Trucks	68.9%	6.0%	25.0%	2.5%
2040 Arterial		·	· · · · · ·	
Automobiles	78.4%	10.9%	10.7%	96.0%
Medium Trucks	78.1%	5.9%	15.9%	1.1%
Heavy Trucks	67.2%	7.1%	25.6%	2.9%
2040 Arterial 2		·	· · · · · ·	
Automobiles	75.1%	10.8%	14.1%	95.8%
Medium Trucks	73.6%	5.8%	20.6%	1.1%
Heavy Trucks	61.3%	6.7%	32.0%	3.1%
2040 Collector			·	
Automobiles	80.0%	9.6%	10.4%	96.0%
Medium Trucks	79.4%	5.2%	15.4%	1.1%
Heavy Trucks	68.8%	6.2%	25.0%	2.9%

#### Table 11: Vehicle Mix Data

<sup>2</sup> Gardena 24hr traffic counts, I ransportation Studies, Inc. 2021.
 <sup>2</sup> Project Trip Gen and Fleet Mix Info, Kittelson & Associates, Inc. 2023.

# 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, and institutional 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 five (5) short-term 15-minute noise measurements were conducted throughout the Project Area to document the existing noise environment. Noise measurement locations are shown in Exhibit H.

#### 6.2.1 Short-Term Noise Measurements

Five short-term noise measurements (15-minute) were taken in order to document the daytime Leq level at different locations throughout the Project Area. Measured noise levels ranged between 56.2 and 76.4 dBA Leq. Vehicle noise associated with Western Ave.,  $182^{nd}$  St., Marine Ave., and Crenshaw Blvd., and Rosecrans Ave. noise were the primary sources of ambient noise. Noise measurement results are presented in Table 12. Field notes and meter output are provided in Appendix B.

Noise	Approximate				A-Weighted Sound Level (dBA)					
Measurement Location	Location		Leq	Lmax	Lmin	L2	L8	L25	L50	
ST1	1651 W 182nd St.	4/11/23	6:58 AM	69.0	81.0	43.6	76.3	73.1	70.4	66.6
ST3	1857 Marine Ave	4/11/23	7:34 AM	68.2	77.1	44.5	73.9	72.1	70.1	66.9
ST4	14906 Wadshan Alley	4/11/23	7:57 AM	58.7	70.9	45.8	65.2	61.6	59.4	57.4
ST5	14308 S Western Ave.	4/11/23	8:26 AM	76.4	95.5	59.1	83.7	76.5	73.7	70.1
ST6	13204 Manhattan Pl.	4/11/23	8:49 AM	56.2	76.0	43.1	64.7	58.9	54.5	50.6
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, 15-minute duration										

#### Table 12: Short-Term Noise Measurement Summary

### 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 13, the measured CNEL was 72.3 at 55 feet from the centerline of Western Ave. and 62.1 dBA at 120 feet from El Segundo Blvd. The primary noise source was vehicle traffic. Table 13 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.

Noise	Approximate			A-We	eighted Sound Level (dBA)			
Measurement	Location	Date		Daytime	Evening	Nighttime	CNEL	
Location				Leq	Leq	Leq		
LT2	14700 S Western Ave.	4/11/23-4/12/23	Western Ave. traffic noise	70.7	68.1	63.5	72.3	
LT7	End of S Catalina Ave.	4/11/23-4/12/23	El Segundo Blvd. traffic noise	58.2	55.9	54.9	62.1	
Notes:     tranic noise       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								

#### Table 13: Long-Term Noise Measurement Summary

# Exhibit H Noise Measurement Location Map



# 6.3 Existing Noise Modeling

The primary sources of noise in Gardena are transportation-related noises. Major roadways create ambient noise levels that affect the overall quality of life in the community. Modeled existing noise levels provided in Table 14 and on Exhibit I 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 12 and 13, 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.

		CNEL, dBA	Dis	tance to C	ontour (fe	eet)
Roadway	Segment Limits	@50 ft	70 dBA	65 dBA	60 dBA	55 dBA
El Segundo Blvd.	Western Ave. to Normandie Ave.	75.9	196	619	1956	6186
135th St.	Western Ave. to Normandie Ave.	72.5	89	281	889	2812
Rosecrans Ave.	Van Ness Ave. to Western Ave.	76.1	202	638	2019	6383
Rosecrans Ave.	Western Ave. to Normandie Ave.	77.2	264	836	2643	8359
Marine Ave.	Crenshaw Blvd. to Van Ness Ave.	71.4	70	221	698	2207
Marine Ave.	Western Ave. to Normandie Ave.	70.6	57	181	572	1810
Redondo Beach Blvd.	Western Ave. to Normandie Ave.	74.3	134	425	1344	4251
Crenshaw Blvd.	El Segundo Blvd. to 135th St.	74.4	138	438	1384	4376
Crenshaw Blvd.	135th St. to Rosecrans Ave.	74.8	150	475	1503	4753
Crenshaw Blvd.	Rosecrans Ave. to Marine Ave.	74.7	149	470	1488	4705
Crenshaw Blvd.	Marine Ave. to Manhattan Beach Blvd.	74.3	134	422	1335	4223
Western Ave.	El Segundo Blvd. to 135th St.	73.7	117	371	1174	3711
Western Ave.	135th St. to Rosecrans Ave.	74.1	127	403	1275	4031
Western Ave.	Rosecrans Ave. to Marine Ave.	74.7	147	465	1471	4653
Western Ave.	158th St. to 162nd St.	75.3	171	541	1712	5413
Western Ave.	166th St. to Artesia Blvd.	75.4	174	551	1742	5508
Western Ave.	Artesia Blvd. to 182nd St.	74.9	155	489	1546	4890
Normandie Ave.	135th St. to Rosecrans Ave.	72.1	81	257	814	2573
Normandie Ave.	170th St. to Artesia Blvd.	73.4	110	348	1099	3475
Vermont Ave.	135th St. to Rosecrans Ave.	73.8	120	380	1201	3797

## **Table 14: Existing Exterior Noise Levels Along Roadways**

		CNEL, dBA	Dis	tance to C	ontour (fe	et)
Roadway	Segment Limits	@50 ft	70 dBA	65 dBA	60 dBA	55 dBA
Notes:			•	•		
	ated at T feet also an end					

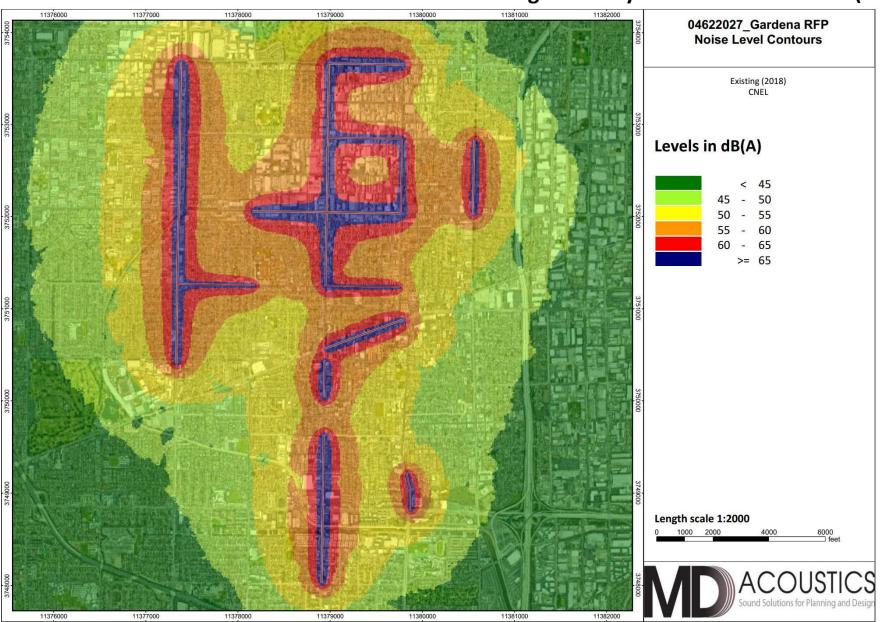
1) Exterior noise levels calculated at 5-feet above ground.

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 I



# **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 Hawthorne Municipal Airport located approximately half a mile northwest of the Project Area. The noise contours associated with this airport do not encroach into the Project Area.

# 6.4 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 Gardena 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 Gardena 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. The Project Area is outside of any airport 65 dBA CNEL contours and therefore there is no aircraft impact. There is no rail lines within the Project Area and there is therefore railway no impact.

The primary noise source in the Project Area will continue to be vehicle traffic. Future traffic noise level contours are presented in Exhibits J and K. Tables 15 and 16 show the future noise levels at a distance of 50 feet from the centerline of studied roadways by the year 2040 for No Project and With Project. The distances to the 55, 60, 65, and 70 dBA CNEL noise contours are also provided.

		CNEL, dBA	Dis	tance to C	contour (fe	et)
Roadway	Segment Limits	@50 ft	70 dBA	65 dBA	60 dBA	55 dBA
El Segundo Blvd.	Western Ave. to Normandie Ave.	75.9	196	619	1958	6191
135th St.	Western Ave. to Normandie Ave.	73.2	105	332	1050	3320
Rosecrans Ave.	Van Ness Ave. to Western Ave.	76.1	202	639	2021	6392
Rosecrans Ave.	Western Ave. to Normandie Ave.	77.2	264	836	2644	8361
Marine Ave.	Crenshaw Blvd. to Van Ness Ave.	71.9	78	246	777	2456
Marine Ave.	Western Ave. to Normandie Ave.	71.0	62	197	623	1969
Redondo Beach Blvd.	Western Ave. to Normandie Ave.	74.3	134	425	1343	4246
Crenshaw Blvd.	El Segundo Blvd. to 135th St.	74.4	139	440	1393	4404
Crenshaw Blvd.	135th St. to Rosecrans Ave.	75.0	158	500	1581	4998
Crenshaw Blvd.	Rosecrans Ave. to Marine Ave.	74.7	149	471	1489	4707
Crenshaw Blvd.	Marine Ave. to Manhattan Beach Blvd.	74.3	134	423	1337	4228
Western Ave.	El Segundo Blvd. to 135th St.	73.8	121	381	1206	3812
Western Ave.	135th St. to Rosecrans Ave.	74.5	140	443	1401	4430
Western Ave.	Rosecrans Ave. to Marine Ave.	74.8	150	475	1501	4748
Western Ave.	158th St. to 162nd St.	75.6	183	577	1825	5771
Western Ave.	166th St. to Artesia Blvd.	75.7	186	588	1859	5877
Western Ave.	Artesia Blvd. to 182nd St.	75.4	172	545	1725	5454
Normandie Ave.	135th St. to Rosecrans Ave.	72.3	85	268	846	2675
Normandie Ave.	170th St. to Artesia Blvd.	73.7	116	367	1160	3669
Vermont Ave.	135th St. to Rosecrans Ave.	74.3	136	430	1359	4297

# Table 15: 2040 No Project Traffic Noise Levels (dBA, CNEL)

		CNEL, dBA	Dis	tance to C	Contour (fe	eet)
Roadway	Segment Limits	@50 ft	70 dBA	65 dBA	60 dBA	55 dBA
Notes:						
1) Exterior noise levels calcul	ated at 5-feet above ground.					

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 16: 2040 Plus Project Traffic Noise Levels (dBA, CNEL)

		CNEL, dBA	Dis	tance to C	Contour (fe	eet)
Roadway	Segment Limits	@50 ft	70 dBA	65 dBA	60 dBA	55 dBA
El Segundo Blvd.	Western Ave. to Normandie Ave.	75.9	196	619	1958	6191
135th St.	Western Ave. to Normandie Ave.	73.6	115	364	1150	3636
Rosecrans Ave.	Van Ness Ave. to Western Ave.	76.3	211	667	2110	6673
Rosecrans Ave.	Western Ave. to Normandie Ave.	77.2	265	838	2650	8381
Marine Ave.	Crenshaw Blvd. to Van Ness Ave.	72.2	83	261	825	2609
Marine Ave.	Western Ave. to Normandie Ave.	70.9	61	194	613	1939
Redondo Beach Blvd.	Western Ave. to Normandie Ave.	74.3	135	427	1352	4274
Crenshaw Blvd.	El Segundo Blvd. to 135th St.	74.5	142	449	1418	4485
Crenshaw Blvd.	135th St. to Rosecrans Ave.	75.1	160	507	1602	5067
Crenshaw Blvd.	Rosecrans Ave. to Marine Ave.	74.9	154	486	1537	4861
Crenshaw Blvd.	Marine Ave. to Manhattan Beach Blvd.	74.3	136	430	1359	4297
Western Ave.	El Segundo Blvd. to 135th St.	74.3	134	424	1339	4236
Western Ave.	135th St. to Rosecrans Ave.	74.5	141	445	1406	4448
Western Ave.	Rosecrans Ave. to Marine Ave.	75.0	159	501	1585	5012
Western Ave.	158th St. to 162nd St.	75.8	192	607	1920	6071
Western Ave.	166th St. to Artesia Blvd.	75.8	191	604	1909	6036
Western Ave.	Artesia Blvd. to 182nd St.	75.5	176	556	1758	5559
Normandie Ave.	135th St. to Rosecrans Ave.	72.3	85	270	854	2702
Normandie Ave.	170th St. to Artesia Blvd.	73.7	118	374	1181	3735
Vermont Ave.	135th St. to Rosecrans Ave.	74.5	140	441	1395	4412
Notes:		•				

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 15 and 16 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 0.7 dBA CNEL louder than existing ambient noise levels at existing land uses and will result in inaudible increases in ambient noise along the analyzed roadways (see Table 17).

Compared to existing traffic noise levels, 2040 with Project traffic volumes are expected to be up to 1.1 dBA CNEL louder than existing ambient noise levels at existing land uses and will result in inaudible increases in ambient noise. Implementation of the Project will therefore result in a less than significant impact to roadway noise levels.

		Existing	2040 N	o Project	2040 W	ith Project
Roadway	Segment	CNEL @ 50' dBA	CNEL @ 50' dBA	Change in Noise Level	CNEL @ 50' dBA	Change in Noise Level
El Segundo Blvd.	Western Ave. to Normandie Ave.	75.9	75.9	0.0	75.9	0.0
135th St.	Segundo Blvd.Western Ave. to Normandie Ave.35th St.Western Ave. to Normandie Ave.osecrans Ave.Van Ness Ave. to Western Ave.osecrans Ave.Western Ave. to Normandie Ave.arine Ave.Crenshaw Blvd. to Van Ness Ave.arine Ave.Western Ave. to Normandie Ave.edondo Beach Blvd.Western Ave. to Normandie Ave.enshaw Blvd.El Segundo Blvd. to 135th St.enshaw Blvd.135th St. to Rosecrans Ave.enshaw Blvd.Kosecrans Ave. to Marine Ave.enshaw Blvd.I35th St. to Rosecrans Ave.enshaw Blvd.El Segundo Blvd. to 135th St.enshaw Blvd.Rosecrans Ave. to Marine Ave.enshaw Blvd.St. to Rosecrans Ave.estern Ave.El Segundo Blvd. to 135th St.estern Ave.I35th St. to Rosecrans Ave.estern Ave.St. to Rosecrans Ave.estern Ave.St. to 162nd St.estern Ave.I66th St. to Artesia Blvd.estern Ave.Artesia Blvd. to 182nd St.ormandie Ave.135th St. to Rosecrans Ave.ormandie Ave.I70th St. to Artesia Blvd.			0.7	73.6	1.1
Rosecrans Ave.	Segundo Blvd.Western Ave. to Normandie Ave.V5th St.Western Ave. to Normandie Ave.vsecrans Ave.Van Ness Ave. to Western Ave.osecrans Ave.Western Ave. to Normandie Ave.arine Ave.Crenshaw Blvd. to Van Ness Ave.arine Ave.Western Ave. to Normandie Ave.arine Ave.Western Ave. to Normandie Ave.arine Ave.El Segundo Blvd. to 135th St.enshaw Blvd.El Segundo Blvd. to 135th St.enshaw Blvd.Rosecrans Ave. to Marine Ave.enshaw Blvd.El Segundo Blvd. to 135th St.enshaw Blvd.Rosecrans Ave. to Marine Ave.enshaw Blvd.El Segundo Blvd. to 135th St.enshaw Blvd.Rosecrans Ave. to Marine Ave.enshaw Blvd.Sth St. to Rosecrans Ave.estern Ave.El Segundo Blvd. to 135th St.estern Ave.135th St. to Rosecrans Ave.estern Ave.I58th St. to 162nd St.estern Ave.166th St. to Artesia Blvd.estern Ave.135th St. to Rosecrans Ave.estern Ave.135th St. to Rosecrans Ave.			0.0	76.3	0.2
Rosecrans Ave.	Western Ave. to Normandie Ave.	77.2	77.2	0.0	77.2	0.0
Marine Ave.	71.4	71.9	0.5	72.2	0.7	
Marine Ave.	Western Ave. to Normandie Ave.	70.6	71.0	0.4	70.9	0.3
Redondo Beach Blvd.	Western Ave. to Normandie Ave.	74.3	74.3	0.0	74.3	0.0
Crenshaw Blvd.	El Segundo Blvd. to 135th St.	74.4	74.4	0.0	74.5	0.1
Crenshaw Blvd.	135th St. to Rosecrans Ave.	74.8	75.0	0.2	75.1	0.3
Crenshaw Blvd.	Rosecrans Ave. to Marine Ave.	74.7	74.7	0.0	74.9	0.1
Crenshaw Blvd.	Marine Ave. to Manhattan Beach Blvd.	74.3	74.3	0.0	74.3	0.1
Western Ave.	El Segundo Blvd. to 135th St.	73.7	73.8	0.1	74.3	0.6
Western Ave.	135th St. to Rosecrans Ave.	74.1	74.5	0.4	74.5	0.4
Western Ave.	Rosecrans Ave. to Marine Ave.	74.7	74.8	0.1	75.0	0.3
Western Ave.	158th St. to 162nd St.	75.3	75.6	0.3	75.8	0.5
Western Ave.	166th St. to Artesia Blvd.	75.4	75.7	0.3	75.8	0.4
Western Ave.	Artesia Blvd. to 182nd St.	74.9	75.4	0.5	75.5	0.6
Normandie Ave.	135th St. to Rosecrans Ave.	72.1	72.3	0.2	72.3	0.2
Normandie Ave.	170th St. to Artesia Blvd.	73.4	73.7	0.2	73.7	0.3
Vermont Ave.	135th St. to Rosecrans Ave.	73.8	74.3	0.5	74.5	0.7
Nistaa	1	1		1		

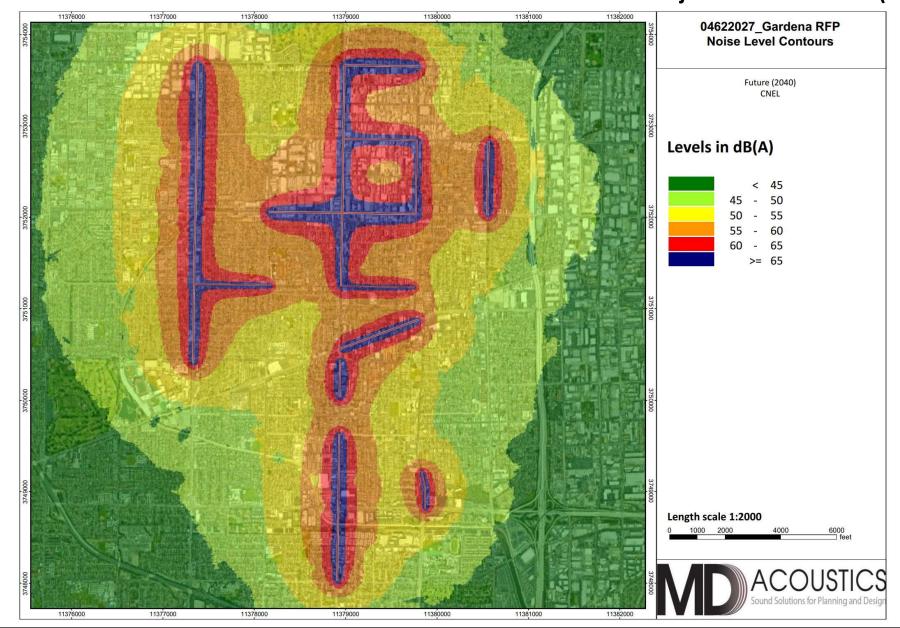
## Table 17: Change in Noise Along Roadways (dBA, CNEL @ 50')

Notes:

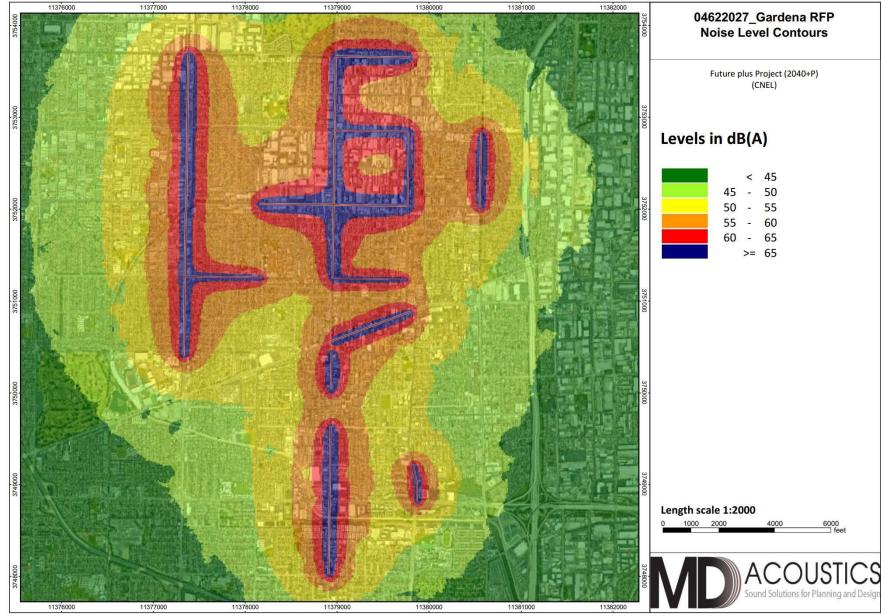
1. Existing and Future traffic volumes compiled by Kittelson & Associates, Inc. Apr 2023.

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.

# Exhibit J 2040 No Project Noise Contours (CNEL)



# Exhibit K 2040 With Project Noise Contours (CNEL)



Where proposed land uses are expected to be exposed to noise levels that exceed the land use compatibility criteria in Exhibit G, impacts can be mitigated to a level that is less than significant with implementation of noise control measures, such as relocating residential outdoor recreational areas away from 65 dBA CNEL or greater areas or shielding outdoor areas using noise barriers. Per the General Plan, future development associated with implementation of the proposed Project requires a noise study prior to issuance of a grading permit and mitigation implemented if noise levels exceed normally acceptable levels as outlined in Exhibit G. For residential developments, the study must ensure that interior levels in livable areas do not exceed 45 dBA CNEL.

# 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 4.3.2. 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 and interior 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 not occur between the times of between the hours of 6:00 p.m. and 7:00 a.m. on weekdays between the hours of 6:00 p.m. and 9:00 a.m. on Saturday or any time on Sunday or a Federal holiday per Section 8.36.080(G) of the Gardena Municipal Code. Construction noise is exempt from the noise ordinance outside of 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 18. 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 Gardena's construction noise reduction techniques described in Section 18.42.200(E).

	wered by Internal Combustion Engines
Туре	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

## **Table 18: Typical Construction Noise Levels**

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 8.36.080(G). 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 8.36.080(G) of the Gardena 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 the implementation the following noise reduction techniques from Section 18.42.200(E) of the Municipal Code which must be included in all construction plans or specifications:

1. Construction contracts specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state-required noise attenuation devices.

2. The project applicant shall demonstrate to the satisfaction of the city's building official that construction noise reduction methods shall be used where feasible, including shutting off idling equipment.

3. During construction, equipment staging areas shall be located such that the greatest distance is between the staging area noise sources and noise-sensitive receptors.

4. Per Section 8.36.080, construction activities shall not occur during the hours of 6:00 p.m. and 7:00 a.m. on weekdays; between the hours of 6:00 p.m. and 9:00 a.m. on Saturday; or any time on Sunday or a federal holiday.

# 7.4 Groundborne Vibration

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).

# 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 21, 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.

	Peak Particle Velocity	Approximate Vibration Level
Equipment	(inches/second) at 25 feet	LV (VdB) at 25 feet
	1.518 (upper range)	112
Pile driver (impact)	0.644 (typical)	104
	0.734 upper range	105
Pile driver (sonic)	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
Small bulldozer	0.003	58

## Table 19: Vibration Source Levels for Construction Equipment

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 20 provides maximum PPV levels (inches/second) to be used to determine if groundborne vibration may result in damage, depending on the type of structure. When evaluated in light of the estimated groundborne vibration levels presented in Table 19, 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. These impacts can be avoided by requiring vibration impact studies when construction utilizes pile drivers within 200 feet of existing buildings or vibratory rollers within 50 feet of existing buildings. These impacts can be reduced to less than significant with the implementation of **Mitigation Measure NOI-1**:

Applicants for future proposed projects whose construction utilizes pile drivers within 200 feet of existing buildings or vibratory rollers within 50 feet of existing buildings shall be required to prepare a vibration impact study which would be required to include a detailed mitigation plan to avoid any potential significant impacts to existing structures due to groundborne vibrations, based on the California Department of Transportation's Construction Vibration Guidance Manual.

## Table 20: Guideline Vibration Damage Potential Threshold Criteria

	Maximum PPV (	inches/second)
Structure and Condition	Transient Sources	Continuous/Frequent Intermittent Source
Extremely fragile historic buildings, ruins, ancient monuments	0.1	0.1
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.3
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5
Source: California Department of Transportation and Construction Vibration Guida	ance 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 <u>in excess of standards</u> 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 traffic volumes are expected to be up to 1.1 dBA CNEL louder than existing ambient noise levels at existing land uses and will not result in substantial increases in ambient noise along the analyzed roadways (see Table 17).

Implementation of the proposed Project will result in less than significant impacts related to exceedances of the land use compatibility criteria. Where existing land uses will be impacted, the impact would be less than significant. 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 the 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 Gardena Municipal Code as outlined in Section 4.3.2. Implementation of the 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 4.3.2. *Stationary noise impacts can be mitigated to "less than significant" with implementation of Gardena Noise Ordinance.* 

# Construction Noise and Vibration

Construction noise will be significant if construction occurs outside of the hours specified in Section 8.36.080(G) of the Gardena 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 shortterm 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. 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 Section 18.42.200(E) 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 within the Project Area is not anticipated to be significant unless an individual development uses pile driving or vibratory rollers. These impacts can be reduced to less than significant with the implementation of **Mitigation Measure NOI-1**:

Applicants for future proposed projects whose construction utilizes pile drivers within 200 feet of existing buildings or vibratory rollers within 50 feet of existing buildings shall be required to prepare a vibration impact study which would be required to include a detailed mitigation plan to avoid any potential significant impacts to existing structures due to groundborne vibrations, based on the California Department of Transportation's Construction Vibration Guidance Manual.

# This impact would be less than significant with mitigation measure NOI-1.

# 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.

### Gardena, City of

2006 General Plan.

City of Gardena Municipal Code.

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

2017 Office of Planning and Research, General Plan Guidelines.

# Appendix A:

SoundPLAN Data

# Gardena RFP Emission calculation road - 001 - Gardena RFP (E): Outdoor GNM

Road	ADT	Gradient	
	Veh/24h	%	
135th St. (Western Ave. to Normandie Ave	16858	-0.5	
Crenshaw Blvd. (135th St. to Rosecrans A	27764	0.3	
Crenshaw Blvd. (El Segundo Blvd. to 135t	32198	0.0	
Crenshaw Blvd. (Marine Ave. to Manhattan	24671	0.1	
Crenshaw Boulevard	27485	-0.2	
El Segundo Blvd. (Western Ave. to Norman	30777	1.7	
Marine Ave. (Crenshaw Blvd. to Van Ness	17340	-0.2	
Marine Ave. (Western Ave. to Normandie A	18483	0.3	
Normandie Ave. (135th St. to Rosecrans A	19425	-0.5	
Normandie Ave. (170th St. to Artesia Blv	26240	-1.3	
Redondo Beach Blvd. (Western Ave. to Nor	30337	0.7	
Rosecrans Ave. (Van Ness Ave. to Western	31758	0.1	
Rosecrans Ave. (Western Ave. to Normandi	41590	-0.3	
Vermont Ave. (135th St. to Rosecrans Ave	19881	-1.6	
Western Ave. (135th St. to Rosecrans Ave	22840	0.2	
Western Ave. (158th St. to 162nd St.)	30668	-0.5	
Western Ave. (166th St. to Artesia Blvd.	31208	-0.2	
Western Ave. (Artesia Blvd. to 182nd St.	27705	0.2	
Western Ave. (El Segundo Blvd. to 135th	21028	-2.1	
Western Ave. (Rosecrans Ave. to Marine A	26365	0.4	

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# Gardena RFP Emission calculation road - 002 - Gardena RFP (2040): Outdoor GNM

16

Road	ADT	Gradient
	Veh/24h	%
135th St. (Western Ave. to Normandie Ave	19900	-0.5
Crenshaw Blvd. (135th St. to Rosecrans A	29200	0.3
Crenshaw Blvd. (El Segundo Blvd. to 135t	32400	0.0
Crenshaw Blvd. (Marine Ave. to Manhattan	24700	0.1
Crenshaw Boulevard	27500	-0.2
El Segundo Blvd. (Western Ave. to Norman	30800	1.7
Marine Ave. (Crenshaw Blvd. to Van Ness	19300	-0.2
Marine Ave. (Western Ave. to Normandie A	20100	0.3
Normandie Ave. (135th St. to Rosecrans A	20200	-0.5
Normandie Ave. (170th St. to Artesia Blv	27700	-1.3
Redondo Beach Blvd. (Western Ave. to Nor	30300	0.7
Rosecrans Ave. (Van Ness Ave. to Western	31800	0.1
Rosecrans Ave. (Western Ave. to Normandi	41600	-0.3
Vermont Ave. (135th St. to Rosecrans Ave	22500	-1.6
Western Ave. (135th St. to Rosecrans Ave	25100	0.2
Western Ave. (158th St. to 162nd St.)	32700	-0.5
Western Ave. (166th St. to Artesia Blvd.	33300	-0.2
Western Ave. (Artesia Blvd. to 182nd St.	30900	0.2
Western Ave. (El Segundo Blvd. to 135th	21600	-2.1
Western Ave. (Rosecrans Ave. to Marine A	26900	0.4

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# Gardena RFP Emission calculation road - 003 - Gardena RFP (2040+P): Outdoor GNM

16

Road	Section name	KM	ADT	Gradient
		km	Veh/24h	%
Vermont Ave.	135th St. to Rosecrans Ave.	0.000	23100	-1.6
Rosecrans Ave.	Van Ness Ave. to Western Ave	0.000	33200	0.1
Normandie Ave.	135th St. to Rosecrans Ave.	0.000	20400	-0.5
Crenshaw Blvd.	El Segundo Blvd. to 135th St	0.000	33000	0.0
Rosecrans Ave.	Western Ave. to Normandie Ave.	0.000	41700	-0.3
Western Ave. (El Segundo Blvd. to 135th		0.000	24000	-2.1
135th St. (Western Ave. to Normandie Ave		0.000	21800	-0.5
El Segundo Blvd. (Western Ave. to Norman		0.000	30800	1.7
Marine Ave.	Western Ave. to Normandie Ave.	0.000	19800	0.3
Crenshaw Boulevard	Rosecrans Ave. to Marine Ave.	0.000	28400	-0.2
Crenshaw Blvd. (135th St. to Rosecrans A		0.000	29600	0.3
Marine Ave. (Crenshaw Blvd. to Van Ness		0.000	20500	-0.2
Western Ave. (Rosecrans Ave. to Marine A		0.000	28400	0.4
Western Ave. (158th St. to 162nd St.)		0.000	34400	-0.5
Western Ave. (135th St. to Rosecrans Ave		0.000	25200	0.2
Redondo Beach Blvd. (Western Ave. to Nor		0.000	30500	0.7
Normandie Ave. (170th St. to Artesia Blv		0.000	28200	-1.3
Western Ave. (166th St. to Artesia Blvd.		0.000	34200	-0.2
Western Ave. (Artesia Blvd. to 182nd St.		0.000	31500	0.2
Crenshaw Blvd. (Marine Ave. to Manhattan		0.000	25100	0.1

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Appendix B:

Noise Measurement Data and Field Sheets

		24-Hour Cont	inuous Noise Measurement Datasheet				
Project Name:	Land Use Plan and Zoning Amendments		Site Observations:				
Project: #/Name:	0462-2020-027 : Gardena, CA		Over Cast-temp 57F winds 1-3 MPH. NM2-The primary Noise source is traffic and pedestrian.				
Site Address/Location:			NM7- Roaid noise is primarily blocked by a block wall on one side of the cul de sac. Primarily				
Date:	04/11/2023		residential noise				
Field Tech/Engineer:	Jason Schuyler/ Claire	Pincock					
Sound Meter:	Piccolo-II, SoftdB	<b>SN:</b> PO221031803					
Settings:	A-weighted, slow, 1-min, 24-hour duration						
Site Id:	NM2, NM7						



Man data ©2023 Google Imagery ©2023 , Airbus, CNES / Airbus, Data CSUMB SFML, CA OPC, Data USGS, Landsat / Copernicus, Maxar Technologies, U.S. Geological Survey, USDA/FPAC/GEO Technologies, U.S. Geological Survey, USDA/FPAC/GEO



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

Project Name:Land Use Plan and Zoning AmendmentsSite Address/Location:Gardena, CASite Id:NM2, NM7

Figure 1: NM2

Figure 2: NM7







Project Name:	Land Use Plan and Zoning Amendments	Site Topo:	Buildings 1-2 stories <b>Day:</b> 1 of 2
Site Address/Location:	Gardena, CA	tall	Noise Source(s) w/ Distance:
Site Id:	NM2	Meteorological Cond.:	57F Overcast winds road noise and residential noise
		1-10MPH	
		Ground Type:	buildings and
		asphalt	

Date	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
4/11/2023	8:00 AM	9:00 AM	68.4	81.9	51	70.6	70.3	69.4	68.1	66.1
4/11/2023	9:00 AM	10:00 AM	67.7	82.1	52.1	70.4	69.2	68.3	67.4	65.8
4/11/2023	10:00 AM	11:00 AM	68.5	92.6	53.8	74.7	71	69	67.2	64.8
4/11/2023	11:00 AM	12:00 PM	71	95.9	54.2	80.8	70.4	68.7	67.9	65
4/11/2023	12:00 PM	1:00 PM	68.3	85.5	55.1	73.5	70	68.8	67.7	65.9
4/11/2023	1:00 PM	2:00 PM	69.8	91.6	55.8	76.7	71.2	69.3	68.6	66.5
4/11/2023	2:00 PM	3:00 PM	76.4	107.1	54.7	80	70.4	68.5	67.8	65.8
4/11/2023	3:00 PM	4:00 PM	68.7	85.5	53.4	73.7	70.5	69	68.1	66.4
4/11/2023	4:00 PM	5:00 PM	70.3	91.4	55.6	76.6	72.1	70	68.9	67.5
4/11/2023	5:00 PM	6:00 PM	71.4	96.3	53.7	75.3	73	70.3	69.6	67.4
4/11/2023	6:00 PM	7:00 PM	69.7	92	52.5	71.7	70.7	69.9	69.1	66.9
4/11/2023	7:00 PM	8:00 PM	68.7	87.4	52.1	73.7	70.6	69.1	67.7	65.2
4/11/2023	8:00 PM	9:00 PM	69.1	94.6	51.7	78	69.3	68.1	66.6	64.2
4/11/2023	9:00 PM	10:00 PM	65.6	78.2	50.9	68.4	67.6	66.7	65.3	62.5
4/11/2023	10:00 PM	11:00 PM	65	86.2	50.8	67.9	67	65.8	64.3	61
4/11/2023	11:00 PM	12:00 AM	63.2	79.6	50.5	67.3	65.7	64.2	62.2	58.8
4/11/2023	12:00 AM	1:00 AM	61.5	83.8	50.7	66.3	63.6	62.2	60.6	55.6
4/11/2023	1:00 AM	2:00 AM	61.7	88.5	50.5	66.6	63.3	60.4	58.7	53.9
4/11/2023	2:00 AM	3:00 AM	59.3	76.4	50.5	65.9	62.5	60.3	57.6	50.9
4/11/2023	3:00 AM	4:00 AM	59.9	78.1	50.4	65.9	63.1	60.8	58.7	54.4
4/11/2023	4:00 AM	5:00 AM	61.3	75.4	50.2	65.8	64.5	62.3	60.7	56.5
4/11/2023	5:00 AM	6:00 AM	64.1	78	50.2	68.8	67.3	65	63.6	59.6
4/11/2023	6:00 AM	7:00 AM	68	92	51	70.9	70	67.8	67	63.8
4/11/2023	7:00 AM	8:00 AM	68.4	84	50.9	70.8	70.3	69.1	68.2	66.3

71.5

DNL

Project Name:	Land Use Plan and Zoning Amendments	Site Topo:	Buildings 1-2 stories Day: 2 of 2
Site Address/Location:	Gardena, CA	tall	Noise Source(s) w/ Distance:
Site Id:	NM7	Meteorological Cond.:	57F Overcast winds road noise and residential noise inside cul de
		1-10MPH	sac
		Ground Type:	buildings and

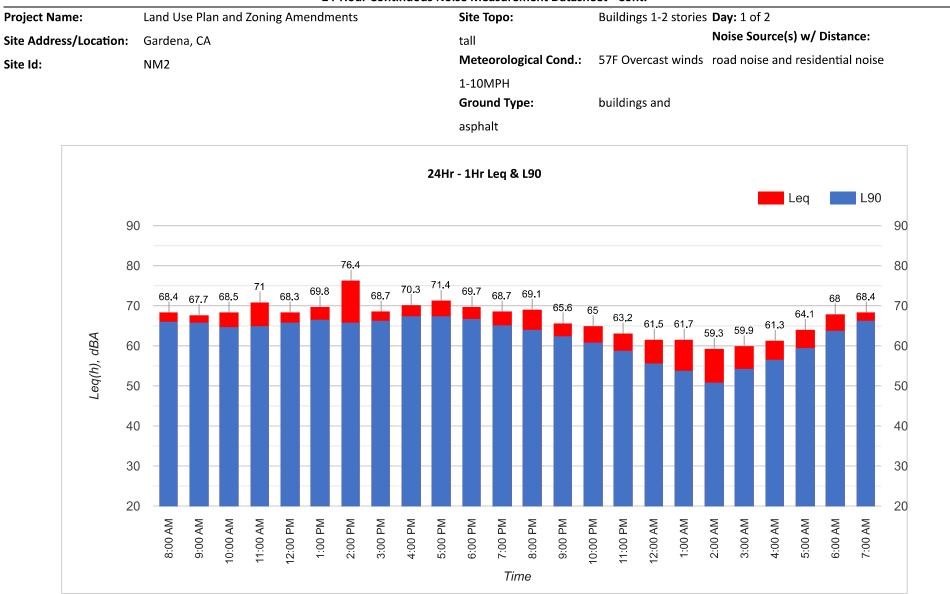
asphalt

Table 2: Baseline Noise Measurement Summary

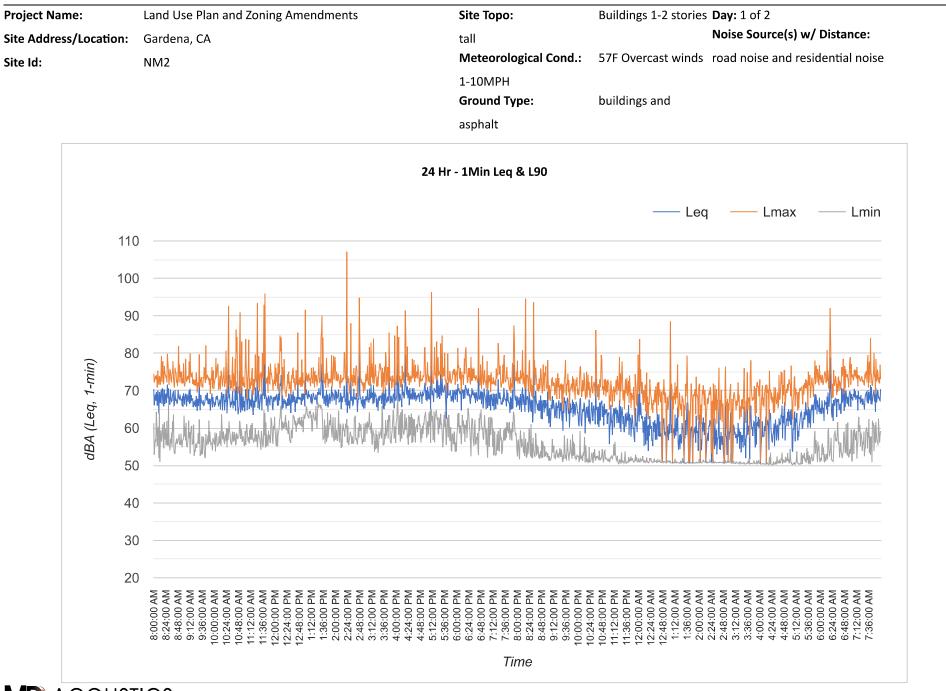
Date	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
4/11/2023	10:01 AM	11:01 AM	55.7	71.7	43.8	59.3	58.3	56.8	55.2	52.6
4/11/2023	11:01 AM	12:01 PM	57.5	79.9	45.2	63.3	59.9	56.2	54.4	52.3
4/11/2023	12:01 PM	1:01 PM	56.7	76.9	45.3	60.2	58.1	57	56	53.1
4/11/2023	1:01 PM	2:01 PM	57.6	75.5	46.1	61.2	59.1	57.2	56.4	53.6
4/11/2023	2:01 PM	3:01 PM	57.5	73.4	47.3	62.6	60.2	57.7	56.4	53.9
4/11/2023	3:01 PM	4:01 PM	59.6	81.4	47.6	66.9	63.2	59.2	57.3	54.8
4/11/2023	4:01 PM	5:01 PM	59.9	75	47.8	65.1	62.5	60.4	58.5	56
4/11/2023	5:01 PM	6:01 PM	58	76.5	47.9	62.6	60.5	58.2	56.9	55.2
4/11/2023	6:01 PM	7:01 PM	57.4	75.6	48.5	61	58.8	57.9	56.8	55
4/11/2023	7:01 PM	8:01 PM	57.3	75.4	47.3	61.8	60.2	57.4	56.4	53.9
4/11/2023	8:01 PM	9:01 PM	55.6	75.2	43.4	62.2	58	55.8	54.1	52.5
4/11/2023	9:01 PM	10:01 PM	54.1	74.2	42	60.4	55.4	54.5	53	50.7
4/11/2023	10:01 PM	11:01 PM	54.9	78.3	36.9	59.6	55.5	53.2	51.8	49
4/11/2023	11:01 PM	12:01 AM	54.3	82.9	37.6	61.5	53.2	52	50.3	47.6
4/11/2023	12:01 AM	1:01 AM	51.2	70.6	40.1	57.9	53.3	51.7	50.1	46.3
4/11/2023	1:01 AM	2:01 AM	49.7	68.7	37.6	56.1	52.1	50.2	48.4	45.1
4/11/2023	2:01 AM	3:01 AM	48.5	62.4	37	52.3	51.4	49.1	47.9	44.9
4/11/2023	3:01 AM	4:01 AM	50.4	63.8	37.8	54.8	53.6	51.4	49.6	45.9
4/11/2023	4:01 AM	5:01 AM	54.6	74.2	39	60.2	57.9	55.4	53.3	49.5
4/11/2023	5:01 AM	6:01 AM	58	81.5	43.2	62.2	61	58.7	56.1	52.7
4/11/2023	6:01 AM	7:01 AM	59.3	67.9	45.4	62.3	61.7	60.4	59.2	55.3
4/11/2023	7:01 AM	8:01 AM	58.4	68.9	47.5	61.2	60.5	59.6	57.8	55.3
4/11/2023	8:01 AM	9:01 AM	57.5	71.4	45.6	61.7	59.3	58.1	57.2	54.2
4/11/2023	9:01 AM	10:01 AM	60.1	79.4	44.2	66	59.4	57.1	55.9	53.1

DNL



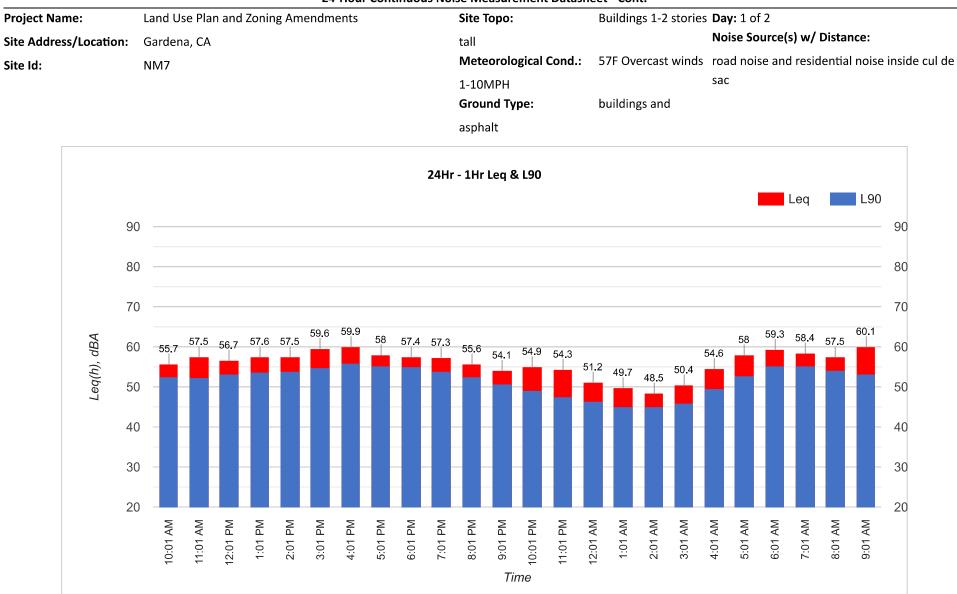






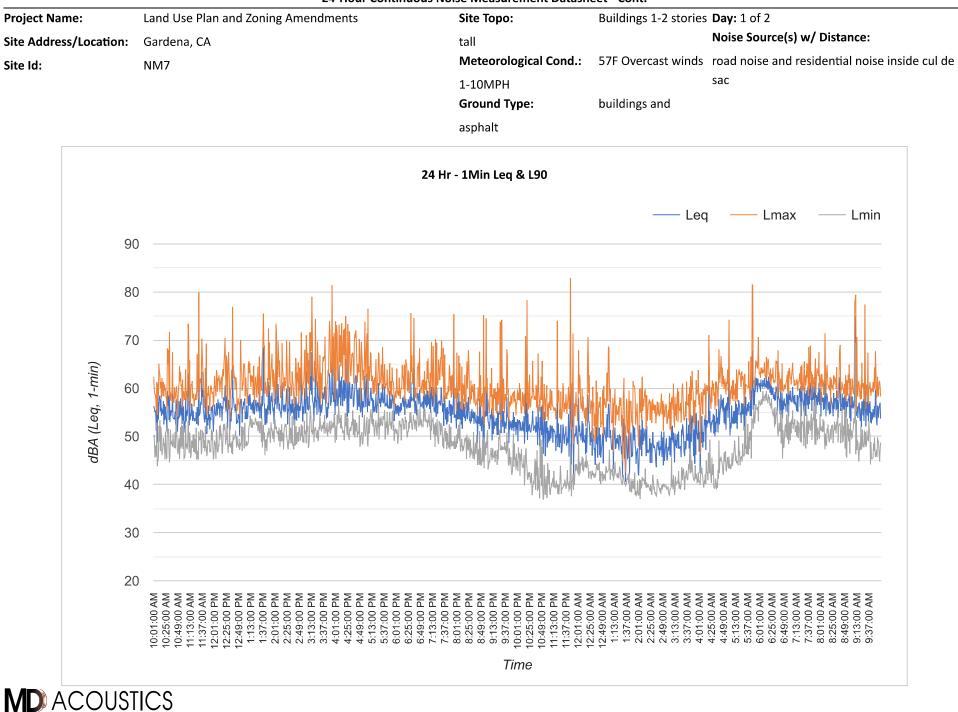
24-Hour Continuous Noise Measurement Datasheet - Cont.

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24-Hour Continuous Noise Measurement Datasheet - Cont.

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24-Hour Continuous Noise Measurement Datasheet - Cont.



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#### **15-Minute Continuous Noise Measurement Datasheet**

Site Address/Location: Gardena, CA	
Date: 4/11/2023	
Field Tech/Engineer: Jason Schuyler/ Claire Pincock	

#### **General Location:**

Sound Meter:	XL2, Nti <b>SN:</b> A2A-08562-E0
Settings:	A-weighted, fast, 1-sec, 15-minute duration
Meteorological Con.:	Overcast. 57F winds 1-3 MPH
Site ID:	ST-1, ST-3 thru ST-6

#### Table 1: Morning - Baseline Noise Measurement Summary

Location	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
ST-1	6:58 AM	7:13 AM	69.0	81	43.6	76.3	73.1	70.4	66.6	51.6
ST-3	7:34 AM	7:49 AM	68.2	77.1	44.5	73.9	72.1	70.1	66.9	56.0
ST-4	7:57 AM	8:12 AM	58.7	70.9	45.8	65.2	61.6	59.4	57.4	51.4
ST-5	8:26 AM	8:41 AM	76.4	95.5	59.1	83.7	76.5	73.7	70.1	64.6
ST-6	8:49 AM	9:04 AM	56.2	76.0	43.1	64.7	58.9	54.5	50.6	45.8

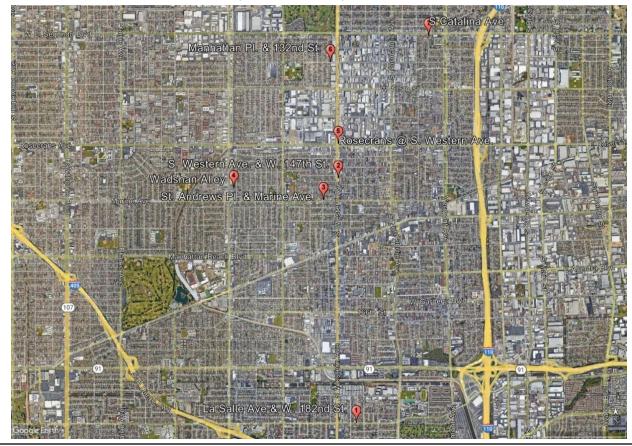


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#### 15-Minute Continuous Noise Measurement Datasheet - Cont.

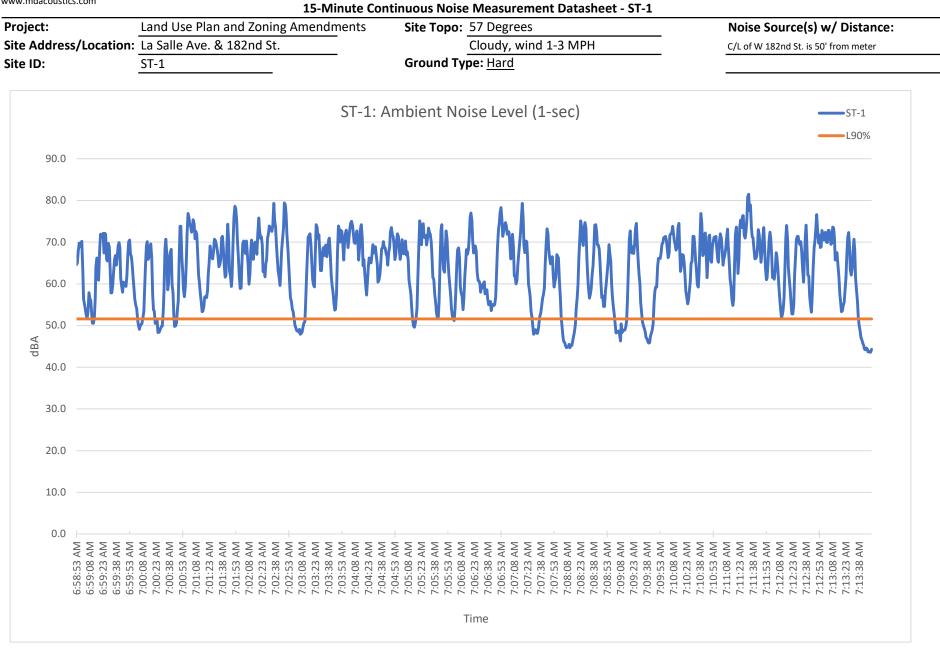
Project:	Land Use Plan and Zoning Amendments
Site Address/Location:	Gardena, CA
Site ID:	ST-1, ST-3 thru ST-6

Figure 1: Monitoring Locations 1-7





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Figure 2-1: ST-1 Site





Figure 2-3: ST-1 Photo





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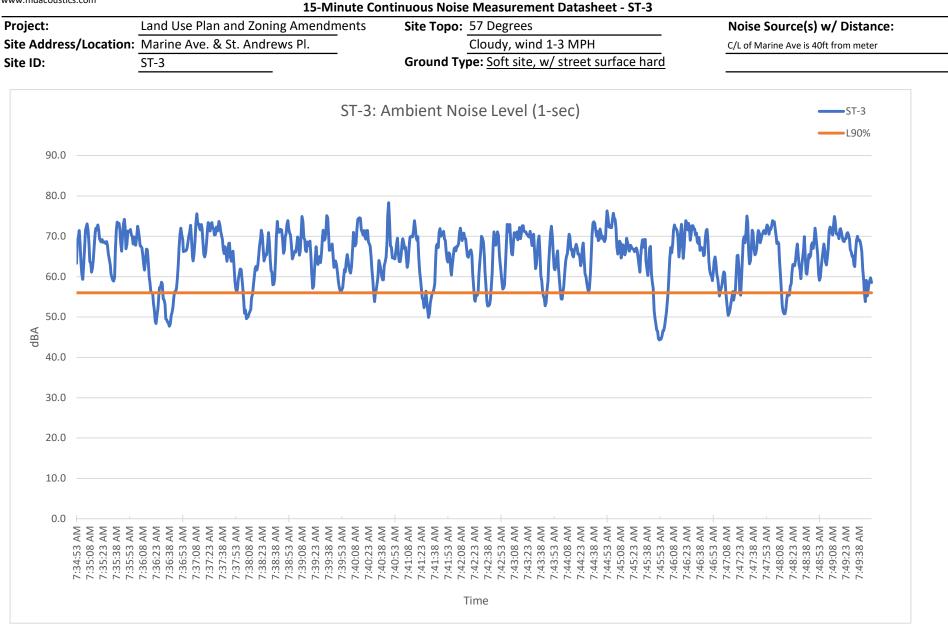




Figure 3-1: ST-3 Site



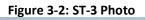




Figure 3-3: ST-3 Photo





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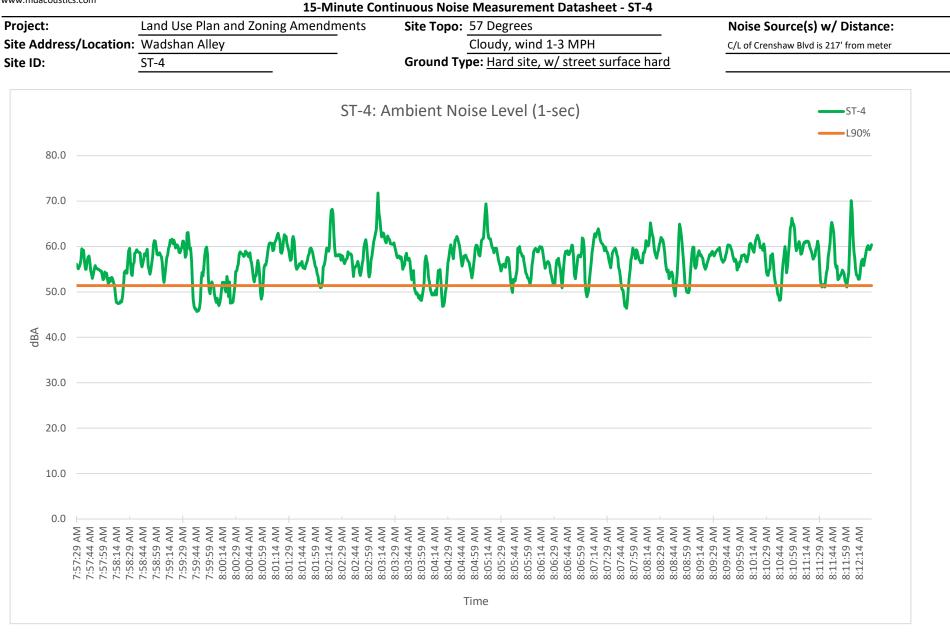




Figure 4-1: ST-4 Site

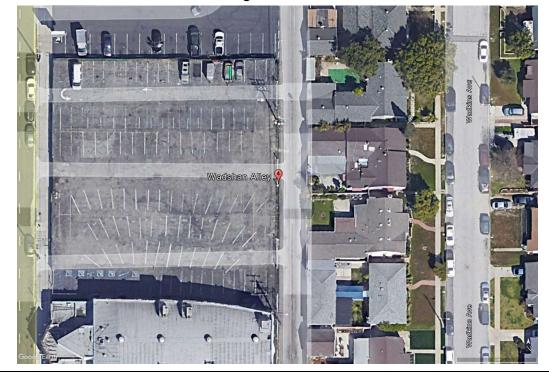


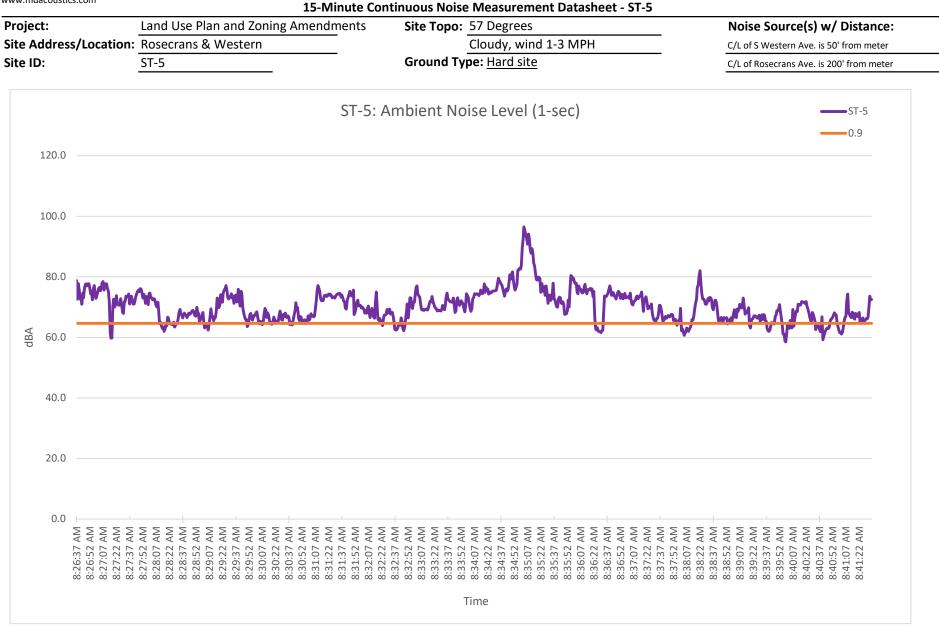


Figure 4-3: ST-4 Photo





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Figure 5-1: ST-5 Site



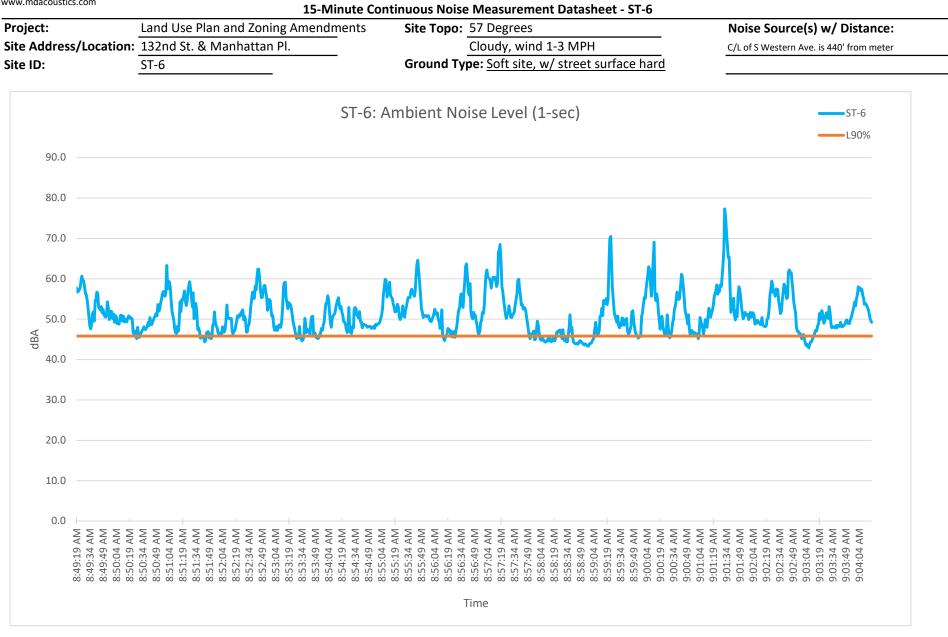


Figure 5-3: ST-5 Photo





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Figure 6-1: ST-6 Site



Figure 6-2: ST-6 Photo



Figure 6-3: ST-6 Photo



## Appendix C:

FHWA Roadway Noise Worksheets

PROJECT:	Gardena Land Use Plan	and Zoning /	Amendments								JOB #:	0462-2020-27
	El Segundo Blvd.	_									DATE:	17-May-23
SEGMENT	Western Ave. to Norma	ndie Ave.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA		SCENARIO:	Existing								
					NOISE		ΔΤΔ					
					NOISE							
	ROADWA	AY CONDI	TIONS					RECEIVER	INPUT D	ATA		
ADT =	30,777					RECEIVER D	ISTANCE =		50			
SPEED =	40					DIST C/L TO	WALL =		0			
PK HR % =	10					RECEIVER H	EIGHT =		5			
NEAR LANE/FAR LANE	E DIST = 65					WALL DISTA	NCE FROM F	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	ION =		0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE	-90			
PK HR VOL =	3,078							RT ANGLE	90			
								DF ANGLE	180			
									100			
	SITE CON	DITIONS						WALL INF	ORMATIO	DN		
AUTOMOBILES	10					HTH WALL :		FT				
				10.0057.00	TE 45)							
MED TRUCKS	10		(HARD SITE=	=10, SOFT SI	TE=15)	AMBIENT =						
HVY TRUCKS	10					BARRIER =	U	(0=WALL,1=	BERIM)			
	VEHICLE N	/IIX DATA						MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY			SLE DISTANC	E GRADE ADJ	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI	LES =	2.00	38.1		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR	RUCKS=	4.00	38.0		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	38.1	0.0	)
					NOISE	OUTPU <sup>.</sup>	T DATA					
					IPACTS (N							
				NOISE IN	IFACI5 (M	inneeri	OF O OK E	ANNER 3	iillebing,			
		VEHICLE T			DAY LEQ				CNEL			
		AUTOMOB	ILES	71.8	69.6	68.7	63.9	71.7	72.2			
			ILES									
		AUTOMOB	ILES RUCKS	71.8	69.6	68.7	63.9	71.7	72.2			
		AUTOMOB MEDIUM T	ILES RUCKS ICKS	71.8 61.3	69.6 59.0	68.7 55.5	63.9 55.1	71.7 62.2	72.2 62.4			
		AUTOMOB MEDIUM T HEAVY TRL	ILES RUCKS ICKS	71.8 61.3 70.7	69.6 59.0 67.6	68.7 55.5 65.5	63.9 55.1 66.4	71.7 62.2 72.9	72.2 62.4 73.1			
		AUTOMOB MEDIUM T HEAVY TRL	ILES RUCKS ICKS	71.8 61.3 70.7	69.6 59.0 67.6 71.9	68.7 55.5 65.5 70.5	63.9 55.1 66.4	71.7 62.2 72.9	72.2 62.4 73.1			
		AUTOMOB MEDIUM T HEAVY TRL	ILES RUCKS ICKS INOISE	71.8 61.3 70.7 74.5	69.6 59.0 67.6 71.9 NOISE CON	68.7 55.5 65.5 70.5	63.9 55.1 66.4 68.6	71.7 62.2 72.9 75.6	72.2 62.4 73.1			
		AUTOMOB MEDIUM T HEAVY TRL	ILES RUCKS ICKS	71.8 61.3 70.7 74.5	69.6 59.0 67.6 71.9	68.7 55.5 65.5 70.5	63.9 55.1 66.4	71.7 62.2 72.9	72.2 62.4 73.1			

	Gardena Land Use Plan a El Segundo Blvd.	and Zoning A	mendments								JOB #: DATE:	0462-2020-27 16-May-23
SEGMENT V	Western Ave. to Norma	ndie Ave.									ENGINEER:	C. Pincock
LOCATION: G	Gardena, CA		SCENARIO:	Cumulative p	olus Project							
					NOISE	INPUT I	DATA					
	ROADWA	AY CONDIT	IONS					RECEIVER	INPUT D	ATA		
ADT =	30,800					RECEIVER D	ISTANCE =		50			
SPEED =	40					DIST C/L TC	WALL =		0			
PK HR % =	10					RECEIVER H	EIGHT =		5			
NEAR LANE/FAR LANE	DIST = 65					WALL DIST	NCE FROM I	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	FION =		0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE	-90			
PK HR VOL =	3,080							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIC	DN		
AUTOMOBILES	10				- 4>	HTH WALL		FT				
MED TRUCKS HVY TRUCKS	10 10		(HARD SITE=	10, SOFT SIT	E=15)	AMBIENT = BARRIER =		(0=WALL,1=				
	VEHICLE N	AIX DATA						MISC. VE	HICLE INFO	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE T	YPE	HEIGHT	SLE DISTANCE	GRADE ADJ	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI	LES =	2.00	38.1		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR	RUCKS=	4.00	38.0		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	38.1	0.0	I
					NOISE	Ουτρυ						
					NOISE	00110	DATA					
								BARRIER SI	HIELDING,			
								BARRIER SI	HIELDING)			
		VEHICLE TY			PACTS (W	/ITHOUT T			HIELDING) CNEL			
		<b>VEHICLE T</b> Y AUTOMOBI	YPE	NOISE IM	PACTS (W	/ITHOUT T	OPO OR E					
			YPE LES	NOISE IM PK HR LEQ 71.8	PACTS (W DAY LEQ	EVEN LEQ 68.7	NIGHT LEC	<b>LDN</b> 71.7	<b>CNEL</b> 72.2			
		AUTOMOBI	YPE LES RUCKS	NOISE IM	PACTS (W DAY LEQ 69.6	EVEN LEQ	NIGHT LEC	LDN	CNEL			
		AUTOMOBI MEDIUM TF HEAVY TRU	YPE LES RUCKS CKS	NOISE IM PK HR LEQ 71.8 61.3 70.7	PACTS (W DAY LEQ 69.6 59.0 67.6	<b>EVEN LEQ</b> 68.7 55.5 65.5	<b>NIGHT LEC</b> 63.9 55.1 66.4	<b>LDN</b> 71.7 62.2 72.9	<b>CNEL</b> 72.2 62.4 73.1			
		AUTOMOBI MEDIUM TF	YPE LES RUCKS CKS	NOISE IM PK HR LEQ 71.8 61.3	PACTS (W DAY LEQ 69.6 59.0	<b>EVEN LEQ</b> 68.7 55.5	<b>NIGHT LEC</b> 63.9 55.1	2 LDN 71.7 62.2	<b>CNEL</b> 72.2 62.4			
		AUTOMOBI MEDIUM TF HEAVY TRU	YPE LES RUCKS CKS	NOISE IM PK HR LEQ 71.8 61.3 70.7 74.5	<b>DAY LEQ</b> 69.6 59.0 67.6 71.9	<b>EVEN LEQ</b> 68.7 55.5 65.5 70.5	<b>NIGHT LEC</b> 63.9 55.1 66.4	<b>LDN</b> 71.7 62.2 72.9	<b>CNEL</b> 72.2 62.4 73.1			
		AUTOMOBI MEDIUM TF HEAVY TRU	YPE LES RUCKS CKS NOISE	NOISE IM PK HR LEQ 71.8 61.3 70.7 74.5	PACTS (W DAY LEQ 69.6 59.0 67.6 71.9 NOISE CONT	<b>EVEN LEQ</b> 68.7 55.5 65.5 70.5	NIGHT LEC 63.9 55.1 66.4 68.6	<b>LDN</b> 71.7 62.2 72.9 75.6	<b>CNEL</b> 72.2 62.4 73.1			
		AUTOMOBI MEDIUM TF HEAVY TRU	YPE LES RUCKS CKS	NOISE IM PK HR LEQ 71.8 61.3 70.7 74.5	<b>DAY LEQ</b> 69.6 59.0 67.6 71.9	<b>EVEN LEQ</b> 68.7 55.5 65.5 70.5	<b>NIGHT LEC</b> 63.9 55.1 66.4	<b>LDN</b> 71.7 62.2 72.9	<b>CNEL</b> 72.2 62.4 73.1			

PROJECT: G	Gardena Land Use Plan	and Zoning A	mendments								JOB #:	0462-2020-27
ROADWAY 1	L35th St.										DATE:	16-May-23
SEGMENT V	Western Ave. to Norma	ndie Ave.									ENGINEER:	C. Pincock
LOCATION: G	Gardena, CA		SCENARIO:	Cumulative p	plus Project							
					NOISE		ΑΤΑ					
	ROADW	AY CONDIT	IONS					RECEIVER	R INPUT D	ΔΤΔ		
	NOADWA	IT CONDIT	IONS					RECEIVEN				
ADT =	21,800	1				RECEIVER D	STANCE =		50			
SPEED =	40					DIST C/L TO			0			
PK HR % =	10					RECEIVER H			5			
NEAR LANE/FAR LANE							NCE FROM R	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA			0			
GRADE =	0					ROADWAY		LF ANGLE	-90			
PK HR VOL =	2,180							RT ANGLE	-90 90			
	2,100							DF ANGLE	90 180			
	SITE CON	DITIONS						WALL INF	ORMATIC	DN		
AUTOMOBILES	10					HTH WALL :	0	FT				
MED TRUCKS	10		(HARD SITE=	10, SOFT SIT	E=15)	AMBIENT =	0					
HVY TRUCKS	10				,	BARRIER =	0	(0=WALL,1=	BERM)			
	VEHICLE N	MIX DATA						MISC. VE	HICLE INFO	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	/PE	HEIGHT	SLE DISTANC	E GRADE AD	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBIL	LES =	2.00	45.9		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR	UCKS=	4.00	45.8		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRUC	CKS =	8.01	45.9	0.0	)
					NOISE	OUTPU <sup>.</sup>	Γ DATA					
									HIFLDING			
				NOISE IM	PACTS (N	/ITHOUT 1	OPO OR B	ARRIER S				
				NOISE IM	PACTS (N	/ITHOUT 1	OPO OR B	BARRIER S				
								-		1		
			/PE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL			
		AUTOMOBI	<b>/PE</b> LES	<b>PK HR LEQ</b> 69.5	<b>DAY LEQ</b> 67.2	<b>EVEN LEQ</b> 66.4	NIGHT LEQ 61.6	LDN 69.4	<b>CNEL</b> 69.9			
		AUTOMOBI MEDIUM TR	<b>/PE</b> LES RUCKS	<b>PK HR LEQ</b> 69.5 59.0	<b>DAY LEQ</b> 67.2 56.6	<b>EVEN LEQ</b> 66.4 53.2	NIGHT LEQ 61.6 52.8	<b>LDN</b> 69.4 59.9	<b>CNEL</b> 69.9 60.1			
		AUTOMOBI	<b>/PE</b> LES RUCKS	<b>PK HR LEQ</b> 69.5	<b>DAY LEQ</b> 67.2	<b>EVEN LEQ</b> 66.4	NIGHT LEQ 61.6	LDN 69.4	<b>CNEL</b> 69.9			
		AUTOMOBI MEDIUM TR	<b>/PE</b> LES RUCKS CKS	<b>PK HR LEQ</b> 69.5 59.0	<b>DAY LEQ</b> 67.2 56.6	<b>EVEN LEQ</b> 66.4 53.2	NIGHT LEQ 61.6 52.8	<b>LDN</b> 69.4 59.9	<b>CNEL</b> 69.9 60.1			
		AUTOMOBI MEDIUM TR HEAVY TRU	<b>/PE</b> LES RUCKS CKS	<b>PK HR LEQ</b> 69.5 59.0 68.4	<b>DAY LEQ</b> 67.2 56.6 65.2	<b>EVEN LEQ</b> 66.4 53.2 63.2	NIGHT LEQ 61.6 52.8 64.1	<b>LDN</b> 69.4 59.9 70.6	<b>CNEL</b> 69.9 60.1 70.8			
		AUTOMOBI MEDIUM TR HEAVY TRU	<b>/PE</b> LES RUCKS CKS	PK HR LEQ 69.5 59.0 68.4 72.2	<b>DAY LEQ</b> 67.2 56.6 65.2	<b>EVEN LEQ</b> 66.4 53.2 63.2 68.2	NIGHT LEQ 61.6 52.8 64.1	<b>LDN</b> 69.4 59.9 70.6	<b>CNEL</b> 69.9 60.1 70.8			
		AUTOMOBI MEDIUM TR HEAVY TRU	<b>/PE</b> LES RUCKS CKS	PK HR LEQ 69.5 59.0 68.4 72.2	<b>DAY LEQ</b> 67.2 56.6 65.2 69.6	<b>EVEN LEQ</b> 66.4 53.2 63.2 68.2	NIGHT LEQ 61.6 52.8 64.1	<b>LDN</b> 69.4 59.9 70.6	<b>CNEL</b> 69.9 60.1 70.8			
		AUTOMOBI MEDIUM TR HEAVY TRU	/PE LES RUCKS CKS NOISE	PK HR LEQ 69.5 59.0 68.4 72.2	DAY LEQ 67.2 56.6 65.2 69.6 NOISE CON	EVEN LEQ 66.4 53.2 63.2 68.2	NIGHT LEQ 61.6 52.8 64.1 66.2	LDN 69.4 59.9 70.6 73.3	<b>CNEL</b> 69.9 60.1 70.8			

PROJECT: G	Gardena Land Use Plan a	and Zoning A	mendments								JOB #:	0462-2020-27
ROADWAY	Marine Ave.										DATE:	16-May-23
SEGMENT C	Crenshaw Blvd. to Van N	less Ave.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA		SCENARIO:	Cumulative p	olus Project							
					NOISE		DATA					
	ROADWA	AY CONDIT						RECEIVER		ΔΤΑ		
	NOADWA		ions					RECEIVEN				
ADT =	20,500					RECEIVER D	ISTANCE =		50			
SPEED =	35					DIST C/L TO			0			
PK HR % =	10					RECEIVER H			5			
NEAR LANE/FAR LANE							NCE FROM R	ECEIVER =	50			
, ROAD ELEVATION =	0					PAD ELEVAT			0			
GRADE =	0					ROADWAY		LF ANGLE	-90			
PK HR VOL =	2,050							RT ANGLE	-90 90			
	_,							DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIC	N		
AUTOMOBILES	10					HTH WALL :	0	FT				
MED TRUCKS	10		(HARD SITE=	10, SOFT SIT	E=15)	AMBIENT =	0					
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERM)			
	VEHICLE N	AIX DATA						MISC. VE	HICLE INFO	)		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	'PE	HEIGHT	SLE DISTANCE	GRADE ADJ	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBIL	ES =	2.00	47.8		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR	UCKS=	4.00	47.7		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRUC	CKS =	8.01	47.8	0.0	
					NOISE	OUTPU <sup>.</sup>	T DATA					
				NOISE IM	PACTS (N	/ΙΤΗΟυΤ 1	OPO OR B	ARRIER S	HIELDING			
				NOISE IM	PACTS (W	/ΙΤΗΟυΤ 1	OPO OR B	ARRIER SI	HIELDING)			
										1		
			/PE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL			
		AUTOMOBI	<b>/PE</b> LES	<b>PK HR LEQ</b> 67.4	<b>DAY LEQ</b> 65.1	<b>EVEN LEQ</b> 64.3	NIGHT LEQ 59.5	LDN 67.3	<b>CNEL</b> 67.8			
		AUTOMOBI MEDIUM TR	<b>/PE</b> LES LUCKS	<b>PK HR LEQ</b> 67.4 57.6	<b>DAY LEQ</b> 65.1 55.3	<b>EVEN LEQ</b> 64.3 51.8	NIGHT LEQ 59.5 51.4	LDN 67.3 58.5	<b>CNEL</b> 67.8 58.8			
		AUTOMOBI	<b>/PE</b> LES LUCKS	<b>PK HR LEQ</b> 67.4	<b>DAY LEQ</b> 65.1	<b>EVEN LEQ</b> 64.3	NIGHT LEQ 59.5	LDN 67.3	<b>CNEL</b> 67.8			
		AUTOMOBI MEDIUM TR	/PE LES LUCKS CKS	<b>PK HR LEQ</b> 67.4 57.6	<b>DAY LEQ</b> 65.1 55.3	<b>EVEN LEQ</b> 64.3 51.8	NIGHT LEQ 59.5 51.4	LDN 67.3 58.5	<b>CNEL</b> 67.8 58.8			
		AUTOMOBI MEDIUM TR HEAVY TRU	/PE LES LUCKS CKS	<b>PK HR LEQ</b> 67.4 57.6 67.5	<b>DAY LEQ</b> 65.1 55.3 64.3	<b>EVEN LEQ</b> 64.3 51.8 62.2	NIGHT LEQ 59.5 51.4 63.1	LDN 67.3 58.5 69.7	<b>CNEL</b> 67.8 58.8 69.9			
		AUTOMOBI MEDIUM TR HEAVY TRU	/PE LES LUCKS CKS	PK HR LEQ 67.4 57.6 67.5 70.7	<b>DAY LEQ</b> 65.1 55.3 64.3	<b>EVEN LEQ</b> 64.3 51.8 62.2 66.5	NIGHT LEQ 59.5 51.4 63.1	LDN 67.3 58.5 69.7	<b>CNEL</b> 67.8 58.8 69.9			
		AUTOMOBI MEDIUM TR HEAVY TRU	/PE LES LUCKS CKS	PK HR LEQ 67.4 57.6 67.5 70.7	DAY LEQ 65.1 55.3 64.3 68.0	<b>EVEN LEQ</b> 64.3 51.8 62.2 66.5	NIGHT LEQ 59.5 51.4 63.1	LDN 67.3 58.5 69.7	<b>CNEL</b> 67.8 58.8 69.9			
		AUTOMOBI MEDIUM TR HEAVY TRU	/PE LES LUCKS CKS NOISE	PK HR LEQ 67.4 57.6 67.5 70.7	DAY LEQ 65.1 55.3 64.3 68.0 NOISE CON	EVEN LEQ 64.3 51.8 62.2 66.5	NIGHT LEQ 59.5 51.4 63.1 64.9	LDN 67.3 58.5 69.7 71.8	<b>CNEL</b> 67.8 58.8 69.9			

PROJECT: G	iardena Land Use Plan a	and Zoning (	mendments								JOB #:	0462-2020-27
	osecrans Ave.	and zoning P	inclution								DATE:	16-May-23
	an Ness Ave. to Wester	rn Ave.									ENGINEER:	C. Pincock
LOCATION: G	iardena, CA		SCENARIO:	Cumulative	plus Project							
					NOISE		ΑΤΑ					
	ROADWA	AY CONDI	TIONS					RECEIVER	INPUT D	ATA		
ADT =	33,200					RECEIVER D	ISTANCE -		50			
SPEED =	40					DIST C/L TO			50			
PK HR % =	40					RECEIVER H			0			
NEAR LANE/FAR LANE [							NCE FROM F	ECEIVER -	5 50			
ROAD ELEVATION =	0					PAD ELEVA		LECEIVEN -	0			
GRADE =	0					ROADWAY		LF ANGLE				
PK HR VOL =	3,320					NOADWAI		RT ANGLE	-90			
FK HK VOL -	5,520							DF ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIC	DN		
AUTOMOBILES	10					HTH WALL	- 0	FT				
MED TRUCKS	10		(HARD SITE=			AMBIENT =						
HVY TRUCKS	10		(HARD SITE-	-10, 30FT 3H	L-13)	BARRIER =		(0=WALL,1=				
	VEHICLE N	/IIX DATA						MISC. VE	HICLE INFO	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	YPE	HEIGHT	SLE DISTANCE	GRADE AD	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI	LES =	2.00	38.1		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR	RUCKS=	4.00	38.0		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	38.1	0.0	)
					NOICE							
					INDISE	UUIFU	T DATA					
				NOISE IM			T DATA	BARRIER S	HIELDING)	)		
				NOISE IM				BARRIER S	HIELDING)			
		VEHICLE T			IPACTS (N	/ITHOUT 1	COPO OR E					
			YPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL			
		AUTOMOBI	<b>YPE</b> ILES	<b>PK HR LEQ</b> 72.2	DACTS (M DAY LEQ 69.9	EVEN LEQ	NIGHT LEQ 64.3	LDN 72.0	<b>CNEL</b> 72.6			
		AUTOMOBI MEDIUM TI	<b>YPE</b> ILES RUCKS	<b>PK HR LEQ</b> 72.2 61.6	DACTS (M DAY LEQ 69.9 59.3	<b>EVEN LEQ</b> 69.0 55.8	<b>NIGHT LEQ</b> 64.3 55.4	LDN 72.0 62.5	<b>CNEL</b> 72.6 62.7			
		AUTOMOBI	<b>YPE</b> ILES RUCKS	<b>PK HR LEQ</b> 72.2	DACTS (M DAY LEQ 69.9	EVEN LEQ	NIGHT LEQ 64.3	LDN 72.0	<b>CNEL</b> 72.6			
		AUTOMOBI MEDIUM TI	YPE ILES RUCKS ICKS	<b>PK HR LEQ</b> 72.2 61.6	DACTS (M DAY LEQ 69.9 59.3	<b>EVEN LEQ</b> 69.0 55.8	<b>NIGHT LEQ</b> 64.3 55.4	LDN 72.0 62.5	<b>CNEL</b> 72.6 62.7			
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS ICKS	<b>PK HR LEQ</b> 72.2 61.6 71.1	<b>DAY LEQ</b> 69.9 59.3 67.9	/ITHOUT 1 EVEN LEQ 69.0 55.8 65.8	<b>NIGHT LEQ</b> 64.3 55.4 66.7	LDN 72.0 62.5 73.3	<b>CNEL</b> 72.6 62.7 73.5			
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS ICKS	<b>PK HR LEQ</b> 72.2 61.6 71.1	<b>DAY LEQ</b> 69.9 59.3 67.9	<b>EVEN LEQ</b> 69.0 55.8 65.8 70.9	<b>NIGHT LEQ</b> 64.3 55.4 66.7	LDN 72.0 62.5 73.3	<b>CNEL</b> 72.6 62.7 73.5			
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS ICKS	<b>PK HR LEQ</b> 72.2 61.6 71.1 74.9	DAY LEQ 69.9 59.3 67.9 72.2	<b>EVEN LEQ</b> 69.0 55.8 65.8 70.9	<b>NIGHT LEQ</b> 64.3 55.4 66.7	LDN 72.0 62.5 73.3	<b>CNEL</b> 72.6 62.7 73.5			
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS ICKS INOISE	<b>PK HR LEQ</b> 72.2 61.6 71.1 74.9	DAY LEQ 69.9 59.3 67.9 72.2	<b>EVEN LEQ</b> 69.0 55.8 65.8 70.9	<b>NIGHT LEQ</b> 64.3 55.4 66.7 68.9	LDN 72.0 62.5 73.3 75.9	<b>CNEL</b> 72.6 62.7 73.5			

PROJECT:	Gardena Land Use Plan	and Zoning	Amendmonts								JOB #:	0462-2020-27
	Rosecrans Ave.		Amenuments								DATE:	16-May-23
	Western Ave. to Norma	ndie Ave									ENGINEER:	C. Pincock
	Gardena, CA	nuic Ave.	SCENARIO:	Cumulative	nlus Project							
			Section	cumulative	prastrojecc							
					NOISE	INPUT [	DATA					
	ROADWA	AY CONDI	TIONS					RECEIVER	R INPUT D	ATA		
ADT =	41,700					RECEIVER D	ISTANCE =		50			
SPEED =	40					DIST C/L TC	WALL =		0			
PK HR % =	10					RECEIVER H	EIGHT =		5			
NEAR LANE/FAR LANE	DIST = 65					WALL DIST	NCE FROM R	RECEIVER =	50			
, ROAD ELEVATION =	0					PAD ELEVA			0			
GRADE =	0					ROADWAY		LF ANGLE				
PK HR VOL =	4,170					NOADWAT		RT ANGLE	-90			
	4,170							DF ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALLIN	ORMATIC	JN		
AUTOMOBILES	10					HTH WALL	= 0	FT				
MED TRUCKS	10		(HARD SITE=	10, SOFT SI	FE=15)	AMBIENT =	0					
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERM)			
	VEHICLE N	MIX DATA						MISC. VE	HICLE INFO	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	/PE	HEIGHT	SLE DISTANCE	E GRADE AD	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBII	LES =	2.00	38.1		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	38.0		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRUC		8.01	38.1	0.0	1
					NOISE	OUTPU	T DATA					
				NOISE IN	IPACTS (N	/ITHOUT 1	TOPO OR B	BARRIER S	HIELDING,			
		VEHICLE T	YPE	PK HR LEO	DAY LEO	EVEN LEO	NIGHT LEO	LDN	CNEL	l		
							NIGHT LEQ					
		AUTOMOB	ILES	73.2	70.9	70.0	65.3	73.0	73.6			
		AUTOMOB MEDIUM T	ILES RUCKS	73.2 62.6	70.9 60.3	70.0 56.8	65.3 56.4	73.0 63.5	73.6 63.7			
		AUTOMOB	ILES RUCKS	73.2	70.9	70.0	65.3	73.0	73.6			
		AUTOMOB MEDIUM T	iles RUCKS JCKS	73.2 62.6	70.9 60.3	70.0 56.8	65.3 56.4	73.0 63.5	73.6 63.7			
		AUTOMOB MEDIUM T HEAVY TRU	iles RUCKS JCKS	73.2 62.6 72.1	70.9 60.3 68.9	70.0 56.8 66.8	65.3 56.4 67.7	73.0 63.5 74.3	73.6 63.7 74.5			
		AUTOMOB MEDIUM T HEAVY TRU	iles RUCKS JCKS	73.2 62.6 72.1	70.9 60.3 68.9 73.2	70.0 56.8 66.8 71.9	65.3 56.4 67.7	73.0 63.5 74.3	73.6 63.7 74.5			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS R NOISE	73.2 62.6 72.1 75.9	70.9 60.3 68.9 73.2 NOISE CON	70.0 56.8 66.8 71.9	65.3 56.4 67.7 69.9	73.0 63.5 74.3 76.9	73.6 63.7 74.5			
		AUTOMOB MEDIUM T HEAVY TRU	iles RUCKS JCKS	73.2 62.6 72.1 75.9	70.9 60.3 68.9 73.2	70.0 56.8 66.8 71.9	65.3 56.4 67.7	73.0 63.5 74.3	73.6 63.7 74.5			

DDOISCT	Condensation 111 - Et										JOB #:	0462-2020-27
	Gardena Land Use Plan a	and Zoning /	Amendments								DATE:	16-May-23
	Western Ave. 135th St. to Rosecrans A										ENGINEER:	C. Pincock
	Gardena, CA	we.	SCENARIO	Cumulative	plus Project							
LOCATION.	Sardena, CA		SCEINARIO.	Cumulative	Plus Project							
					NOISE	INPUT [	DATA					
	ROADWA	Y CONDI	TIONS					RECEIVER		ΑΤΑ		
ADT =	25,200					RECEIVER D	ISTANCE =		50			
SPEED =	40					DIST C/L TO	WALL =		0			
PK HR % =	10					RECEIVER H			5			
NEAR LANE/FAR LANE	DIST = 50						NCE FROM I	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA			0			
GRADE =	0					ROADWAY		LF ANGLE	-90			
PK HR VOL =	2,520							RT ANGLE	90			
	,							DF ANGLE	180			
									100			
	SITE CON	DITIONS						WALL INF	ORMATIC	אכ		
AUTOMOBILES	10					HTH WALL :		FT				
MED TRUCKS	10		(HARD SITE:		TE-1E)	AMBIENT =						
HVY TRUCKS	10		(HARD SITE-	-10, 30FT 31	12-13)	BARRIER =		(0=WALL,1=				
HVI INDERS	10					BARNER -	0	(U-WALL,1-	BERIVIJ			
	VEHICLE N	/ΙΙΧ DATA						MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE T			SLE DISTANC	E GRADE AD.	USIMENI
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI		2.00	43.4		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	43.3		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	43.4	0.0	)
					NOISE	OUTPU	T DATA					
				NOISE IN	ΛΡΛΓΤς /\Λ			BARRIER S		)		
				NOIDE	in Acto (A							
										_		
			YPE	PK HR LEC	DAY LEQ				CNEL			
		VEHICLE T				67.3	62.5	70.3	70.8			
		AUTOMOB	ILES	70.4	68.1							
		AUTOMOB MEDIUM T	ILES RUCKS	59.8	57.5	54.0	53.7	60.7	61.0			
		AUTOMOB	ILES RUCKS				53.7 65.0	60.7 71.5	61.0 71.7			
		AUTOMOB MEDIUM T	ILES RUCKS ICKS	59.8	57.5	54.0						
		AUTOMOB MEDIUM T HEAVY TRL	ILES RUCKS ICKS	59.8 69.3	57.5 66.1	54.0 64.1	65.0	71.5	71.7			
		AUTOMOB MEDIUM T HEAVY TRL	ILES RUCKS ICKS	59.8 69.3	57.5 66.1 70.5	54.0 64.1 69.1	65.0	71.5	71.7			
		AUTOMOB MEDIUM T HEAVY TRL	ILES RUCKS ICKS INOISE	59.8 69.3 73.1	57.5 66.1 70.5 NOISE CON	54.0 64.1 69.1	65.0	71.5	71.7			
		AUTOMOB MEDIUM T HEAVY TRL	ILES RUCKS ICKS	59.8 69.3 73.1	57.5 66.1 70.5	54.0 64.1 69.1	65.0	71.5	71.7			

PROJECT:	Gardena Land Use Plan a	and Zoning	Amendments								JOB #:	0462-2020-27
	Redondo Beach Blvd.		Amenumenta								DATE:	16-May-23
	Western Ave. to Normai	ndie Ave.									ENGINEER:	C. Pincock
	Gardena, CA		SCENARIO:	Cumulative	plus Project							
					NOISE		DATA					
	ROADWA	AY CONDI	TIONS					RECEIVER	R INPUT D	ATA		
ADT =	30,500					RECEIVER D	ISTANCE =		50			
SPEED =	35					DIST C/L TO	WALL =		0			
PK HR % =	10					RECEIVER H	EIGHT =		5			
NEAR LANE/FAR LANE	DIST = 50					WALL DISTA	NCE FROM R	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	ION =		0			
GRADE =	0					ROADWAY	/IEW:	LF ANGLE	-90			
PK HR VOL =	3,050							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIC	ON		
AUTOMOBILES	10					HTH WALL :	0	FT				
MED TRUCKS	10		(HARD SITE:		(F=15)	AMBIENT =	0					
HVY TRUCKS	10			-10, 5011 51	12-13)	BARRIER =		(0=WALL,1=	RERM)			
								. ,				
	VEHICLE N	VIX DATA						MISC. VE	HICLE INFO	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY		HEIGHT	SLE DISTANC	F GRADF ADI	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI		2.00	43.4		
MEDIUM TRUCKS	0.708	0.140	0.140	0.938			MEDIUM TR		4.00	43.4		
HEAVY TRUCKS	0.577	0.079	0.217	0.011			HEAVY TRU		8.01	43.3	0.0	
HEAVE TROCKS	0.577	0.090	0.332	0.051			HEAVE INO	CK3 -	8.01	43.4	0.0	
					NOISE	OUTPU	T DATA					
				NOISE IN	IPACTS (V	/ITHOUT 1	OPO OR B	BARRIER S	HIELDING	)		
									015	1		
		VELUCIE	VDE	DK 110 1 5 5	DAVISE	EVENIES	NICUTIC	101		1		
				PK HR LEC			NIGHT LEQ		CNEL	1		
		AUTOMOB	ILES	69.6	67.3	66.4	61.7	69.4	70.0	1		
		AUTOMOB MEDIUM T	ILES	69.6 59.8	67.3 57.4	66.4 54.0	61.7 53.6	69.4 60.7	70.0 60.9			
		AUTOMOB	ILES	69.6	67.3	66.4	61.7	69.4	70.0			
		AUTOMOB MEDIUM T	illes RUCKS JCKS	69.6 59.8	67.3 57.4	66.4 54.0	61.7 53.6	69.4 60.7	70.0 60.9			
		AUTOMOB MEDIUM T HEAVY TRU	illes RUCKS JCKS	69.6 59.8 69.6	67.3 57.4 66.4	66.4 54.0 64.4	61.7 53.6 65.3	69.4 60.7 71.8	70.0 60.9 72.0			
		AUTOMOB MEDIUM T HEAVY TRU	illes RUCKS JCKS	69.6 59.8 69.6	67.3 57.4 66.4 70.1	66.4 54.0 64.4 68.7	61.7 53.6 65.3	69.4 60.7 71.8	70.0 60.9 72.0			
		AUTOMOB MEDIUM T HEAVY TRU	ILES IRUCKS JCKS R NOISE	69.6 59.8 69.6 72.8	67.3 57.4 66.4 70.1 NOISE CON	66.4 54.0 64.4 68.7	61.7 53.6 65.3 67.0	69.4 60.7 71.8 74.0	70.0 60.9 72.0			
		AUTOMOB MEDIUM T HEAVY TRU	illes RUCKS JCKS	69.6 59.8 69.6 72.8	67.3 57.4 66.4 70.1	66.4 54.0 64.4 68.7	61.7 53.6 65.3	69.4 60.7 71.8	70.0 60.9 72.0			

PROJECT:	Gardona Land Liss Di	and Zonia:	Amonder								JOB #:	0462-2020-27
	Gardena Land Use Plan a Crenshaw Blvd.	and Zoning A	Amenaments								DATE:	16-May-23
	El Segundo Blvd. to 135	h St									ENGINEER:	C. Pincock
	Gardena, CA		SCENARIO:	Cumulative	plus Proiect							
	,											
					NOISE	INPUT I	DATA					
	ROADWA	Y CONDI	TIONS					RECEIVER	R INPUT D	ΑΤΑ		
ADT =	33,000					RECEIVER D	DISTANCE =		50			
SPEED =	35					DIST C/L TO	WALL =		0			
PK HR % =	10					RECEIVER H	IEIGHT =		5			
NEAR LANE/FAR LANE	E DIST = 45					WALL DIST	ANCE FROM R	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	TION =		0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE	-90			
PK HR VOL =	3,300							RT ANGLE	90			
								DF ANGLE	180			
									100			
	SITE CON	DITIONS						WALL IN	ORMATIC	ON		
							_ ^	ст				
AUTOMOBILES	10			10 0057 017	FF 4F)	HTH WALL		FT				
MED TRUCKS HVY TRUCKS	10		(HARD SITE:	=10, SOFT SIT	E=15)	AMBIENT = BARRIER =						
INT INDERS	10					BARNER -	0	(0=WALL,1=	BERIVIJ			
	VEHICLE N	/IIX DATA						MISC. VE	HICLE INF	0		
									-			
									UFICUT			
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY			SLE DISTANC	E GRADE AD	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI		2.00	44.8		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	44.7		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	44.8	0.0	)
					NOISE	Ουτρυ	T DATA					
				NOISE IN	ΙΡΔΓΤς /ν	/ΙΤΗΟΙΙΤ΄	TOPO OR B	RARRIER S	HIFI DING	)		
								, in the second s				
										_		
		VEHICLE T	YPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL	]		
			ILES	69.8	67.5	66.6	61.9	69.6	70.2			
		AUTOMOB				1	53.8	60.9	61.1			
		AUTOMOB MEDIUM T		60.0	57.7	54.2	55.0					
			RUCKS	60.0 69.8	57.7 66.6	54.2 64.6	65.5	72.0	72.2			
		MEDIUM T HEAVY TRU	RUCKS JCKS						72.2 74.5			
		MEDIUM T	RUCKS JCKS	69.8	66.6	64.6	65.5	72.0				
		MEDIUM T HEAVY TRU	RUCKS JCKS	69.8	66.6	64.6	65.5	72.0				
		MEDIUM T HEAVY TRU		69.8	66.6	64.6	65.5	72.0				
		MEDIUM T HEAVY TRU	RUCKS JCKS	69.8	66.6 70.3	64.6	65.5	72.0				

PROJECT:	Gardena Land Use Plan a	and Zoning A	Amendments								JOB #:	0462-2020-27
ROADWAY	Crenshaw Blvd.										DATE:	16-May-23
SEGMENT 1	135th St. to Rosecrans A	ve.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA		SCENARIO:	Cumulative	plus Project							
					NOISE		DATA					
	ROADWA							RECEIVER		ΔΤΔ		
	KOADWA	IT CONDI	HONS					RECEIVEN		ATA		
ADT =	29,600					RECEIVER D	ISTANCE =		50			
SPEED =	40					DIST C/L TO			0			
PK HR % =	10					RECEIVER H			5			
NEAR LANE/FAR LANE							NCE FROM F	RECEIVER =	50			
, ROAD ELEVATION =	0					PAD ELEVA			0			
GRADE =	0					ROADWAY		LF ANGLE	-90			
PK HR VOL =	2,960							RT ANGLE	-90 90			
	2,500							DF ANGLE	90 180			
								DI ANGLE	100			
	SITE CON	DITIONS						WALL INF	ORMATIC	DN		
AUTOMOBILES	10					HTH WALL	= 0	FT				
MED TRUCKS	10		(HARD SITE=	=10, SOFT SI	TE=15)	AMBIENT =	0					
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERM)			
	VEHICLE N	/IIX DATA						MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	(PE	HEIGHT	SLE DISTANC	E GRADE ADJ	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI	LES =	2.00	44.8		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR	RUCKS=	4.00	44.7		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	44.8	0.0	1
					NOISE	OUTPU	T DATA					
				NOISE IN					HIELDING,	)		
				NOISE III	IPACTS (W		OF O OK L	SARRIER SI				
					IPACTS (W	пноот		SARRIER SI				
		VEHICLE T			APACTS (W				CNEL	1		
		<b>VEHICLE T</b> AUTOMOBI	YPE						<b>CNEL</b> 71.4			
			<b>YPE</b> ILES	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN				
		AUTOMOBI	<b>YPE</b> ILES RUCKS	<b>PK HR LEQ</b> 71.0	<b>DAY LEQ</b> 68.7	<b>EVEN LEQ</b> 67.8	NIGHT LEQ 63.1	LDN 70.8	71.4			
		AUTOMOBI MEDIUM TF	YPE ILES RUCKS ICKS	<b>PK HR LEO</b> 71.0 60.4	<b>DAY LEQ</b> 68.7 58.1	<b>EVEN LEQ</b> 67.8 54.6	<b>NIGHT LEQ</b> 63.1 54.2	LDN 70.8 61.3	71.4 61.5			
		AUTOMOBI MEDIUM TF HEAVY TRU	YPE ILES RUCKS ICKS	<b>PK HR LEO</b> 71.0 60.4 69.9	<b>DAY LEQ</b> 68.7 58.1 66.7	<b>EVEN LEQ</b> 67.8 54.6 64.6	NIGHT LEQ 63.1 54.2 65.5	LDN 70.8 61.3 72.1	71.4 61.5 72.3			
		AUTOMOBI MEDIUM TF HEAVY TRU	YPE ILES RUCKS ICKS	<b>PK HR LEO</b> 71.0 60.4 69.9	<b>DAY LEQ</b> 68.7 58.1 66.7 71.0	<b>EVEN LEQ</b> 67.8 54.6 64.6 69.7	NIGHT LEQ 63.1 54.2 65.5	LDN 70.8 61.3 72.1	71.4 61.5 72.3			
		AUTOMOBI MEDIUM TF HEAVY TRU	YPE ILES RUCKS ICKS INOISE	<b>PK HR LEC</b> 71.0 60.4 69.9 73.7	DAY LEQ 68.7 58.1 66.7 71.0	EVEN LEQ 67.8 54.6 64.6 69.7	NIGHT LEQ 63.1 54.2 65.5 67.7	LDN 70.8 61.3 72.1 74.7	71.4 61.5 72.3			
		AUTOMOBI MEDIUM TF HEAVY TRU	YPE ILES RUCKS ICKS	<b>PK HR LEC</b> 71.0 60.4 69.9 73.7	<b>DAY LEQ</b> 68.7 58.1 66.7 71.0	<b>EVEN LEQ</b> 67.8 54.6 64.6 69.7	NIGHT LEQ 63.1 54.2 65.5	LDN 70.8 61.3 72.1	71.4 61.5 72.3			

	Gardena Land Use Plan a	and Zoning 4	Mendments								JOB #:	0462-2020-27
ROADWAY	Crenshaw Blvd.										DATE:	16-May-23
SEGMENT	Rosecrans Ave. to Marin	ie Ave.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA		SCENARIO:	Cumulative	plus Project							
					NOISE		ΔΤΔ					
					NOISE							
	ROADWA	AY CONDI	TIONS					RECEIVER	R INPUT D	ΑΤΑ		
ADT =	28,400						DISTANCE =		50			
SPEED =	40					DIST C/L TO			0			
PK HR % =	10					RECEIVER			5			
NEAR LANE/FAR LAN							ANCE FROM F	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	TION =		0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE	-90			
PK HR VOL =	2,840							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIO	DN	<u> </u>	
AUTOMOBILES	10					HTH WALL		FT				
MED TRUCKS	10		(HARD SITE:	=10, SOFT SIT	E=15)	AMBIENT =	= 0					
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERM)			
	VEHICLE N	VIX DATA						MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE T	/DE	HEIGHT	SI F DISTANC	CE GRADE ADJ	IUSTMENT
	0.708	0.146	0.146	0.958			AUTOMOBI					
									2.00	44.8		
MEDIUM TRUCKS HEAVY TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	44.7	0.0	
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	44.8	0.0	J
					NOISE	OUTPU	T DATA					
				NOISE IM	PACTS (V	/ITHOUT	TOPO OR E	BARRIER SI	HIELDING,	)		
		VEHICLE T	YPE	PK HR LEQ	DAY LEQ	EVEN LEO		LDN	CNEL	1		
		AUTOMOB	ILES	70.8	68.5	67.7	62.9	70.6	71.2	1		
		MEDIUM T		60.2	57.9	54.4	54.0	61.1	61.4			
		HEAVY TRU		69.7	66.5	64.5	65.4	71.9	72.1			
				· · · · ·					-			
		VEHICULAR	NOISE	73.5	70.9	69.5	67.5	74.5	74.9	l		
					NOISE CON	TOUR (FT)						
			NOISE LEVE		NOISE CON 70 dBA	TOUR (FT) 65 dBA	60 dBA	55 dBA				

DDOIFCT.			•								JOB #:	0462-2020-27
	Gardena Land Use Plan a Crenshaw Blvd.	and Zoning	Amendments								DATE:	16-May-23
	Marine Ave. to Manhatt	an Beach B	lvd								ENGINEER:	C. Pincock
	Gardena, CA	un beach b		Cumulative	plus Project							
					NOISE	INPUT [	DATA					
	ROADWA	AY COND	TIONS					RECEIVER	R INPUT D	ΑΤΑ		
ADT =	25,100					RECEIVER D	ISTANCE =		50			
SPEED =	40					DIST C/L TO	WALL =		0			
PK HR % =	10					RECEIVER H	EIGHT =		5			
NEAR LANE/FAR LANE	DIST = 45					WALL DISTA	NCE FROM F	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	TION =		0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE	-90			
PK HR VOL =	2,510							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIO	ON		
AUTOMOBILES	10					HTH WALL	= 0	FT				
MED TRUCKS	10		(HARD SITE:	=10_SOFT SI	TF=15)	AMBIENT =						
HVY TRUCKS	10		(111110-0112	10,001101		BARRIER =		(0=WALL,1=	BERM)			
	VEHICLE N	VIX DATA	l.					MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE T	YPE	HEIGHT	SLE DISTANC	E GRADE ADJ	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI	LES =	2.00	44.8		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	44.7		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU		8.01	44.8	0.0	)
					NOISE	OUTPU	T DATA					
				NOISE IN	ИРАСТ <b>S</b> (И	VITHOUT 1	OPO OR E	BARRIER S	HIELDING	)		
		VEHICLE 1	ТҮРЕ	PK HR LEC	DAY LEQ	EVEN LEQ	NIGHT LEO	LDN	CNEL	]		
		AUTOMOE	BILES	70.3	68.0	67.1	62.4	70.1	70.7	1		
		MEDIUM T	RUCKS	59.7	57.4	53.9	53.5	60.6	60.8			
		HEAVY TRU	JCKS	69.1	66.0	63.9	64.8	71.4	71.6			
		VEHICULAI	R NOISE	73.0	70.3	69.0	67.0	74.0	74.3			
		L	-			1				4		
					NOISE CON	1						
			NOISE LEVE	LS	NOISE CON 70 dBA 136	TOUR (FT) 65 dBA 430	<b>60 dBA</b> 1359	<b>55 dBA</b> 4297				

PROJECT:	Gardena Land Use Plan a	and Zoning Arr	endments								JOB #:	0462-2020-2
ROADWAY	Marine Ave.										DATE:	16-May-23
SEGMENT	Western Ave. to Normar	ndie Ave.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA	S	CENARIO:	Cumulative p	plus Project							
					NOISE		ΑΤΑ					
	ROADWA	AY CONDITI	ONS					RECEIVER	INPUT D	ΑΤΑ		
4.9.7	10.000					050511/50 0						
ADT =	19,800					RECEIVER D			50			
SPEED =	30					DIST C/L TO			0			
PK HR % =	10					RECEIVER H			5			
NEAR LANE/FAR LANE							NCE FROM R	ECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	ION =		0			
GRADE =	0					ROADWAY	/IEW:	LF ANGLE	-90			
PK HR VOL =	1,980							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIC	DN		
AUTOMOBILES	10					HTH WALL :		FT				
MED TRUCKS	10	(	HARD SITE=	10, SOFT SIT	E=15)	AMBIENT =	0					
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERM)			
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY		HEIGHT		E GRADE AD	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBIL	LES =	2.00	48.5		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR	UCKS=	4.00	48.4		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRUC	CKS =	8.01	48.5	0.0	)
					NOISE	OUTPU	T DATA					
							T DATA	ARRIER SI	HIELDING			
								ARRIER S	HIELDING)	)		
				NOISE IM	PACTS (W	/ITHOUT 1	OPO OR B			]		
		VEHICLE TYP	PE	NOISE IM PK HR LEQ	PACTS (W DAY LEQ	EVEN LEQ	OPO OR B	LDN	CNEL			
		AUTOMOBILE	PE S	NOISE IM PK HR LEQ 65.3	<b>PACTS (M</b> <b>DAY LEQ</b> 63.0	EVEN LEQ	OPO OR B NIGHT LEQ 57.4	LDN 65.1	<b>CNEL</b> 65.7			
		AUTOMOBILE MEDIUM TRU	PE IS ICKS	NOISE IM PK HR LEQ 65.3 56.4	<b>DAY LEQ</b> 63.0 54.0	/ITHOUT 1 EVEN LEQ 62.1 50.6	OPO OR B NIGHT LEQ 57.4 50.2	LDN 65.1 57.3	<b>CNEL</b> 65.7 57.5			
		AUTOMOBILE	PE IS ICKS	NOISE IM PK HR LEQ 65.3	<b>PACTS (M</b> <b>DAY LEQ</b> 63.0	EVEN LEQ	OPO OR B NIGHT LEQ 57.4	LDN 65.1	<b>CNEL</b> 65.7			
		AUTOMOBILE MEDIUM TRU	PE IS ICKS KS	NOISE IM PK HR LEQ 65.3 56.4	<b>DAY LEQ</b> 63.0 54.0	/ITHOUT 1 EVEN LEQ 62.1 50.6	OPO OR B NIGHT LEQ 57.4 50.2	LDN 65.1 57.3	<b>CNEL</b> 65.7 57.5			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCK	PE IS ICKS KS	NOISE IM PK HR LEQ 65.3 56.4 66.6	PACTS (W DAY LEQ 63.0 54.0 63.4	<b>EVEN LEQ</b> 62.1 50.6 61.4	<b>NIGHT LEQ</b> 57.4 50.2 62.3	LDN 65.1 57.3 68.8	<b>CNEL</b> 65.7 57.5 69.0			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCK	PE IS ICKS KS	NOISE IM PK HR LEQ 65.3 56.4 66.6 69.2	PACTS (W DAY LEQ 63.0 54.0 63.4	<b>EVEN LEQ</b> 62.1 50.6 61.4 65.0	<b>NIGHT LEQ</b> 57.4 50.2 62.3	LDN 65.1 57.3 68.8	<b>CNEL</b> 65.7 57.5 69.0			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCH VEHICULAR N	PE IS ICKS KS	NOISE IM PK HR LEQ 65.3 56.4 66.6 69.2	PACTS (W DAY LEQ 63.0 54.0 63.4 66.5	<b>EVEN LEQ</b> 62.1 50.6 61.4 65.0	<b>NIGHT LEQ</b> 57.4 50.2 62.3	LDN 65.1 57.3 68.8	<b>CNEL</b> 65.7 57.5 69.0			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCH VEHICULAR N	PE	NOISE IM PK HR LEQ 65.3 56.4 66.6 69.2	PACTS (W DAY LEQ 63.0 54.0 63.4 66.5 NOISE CONT	<b>EVEN LEQ</b> 62.1 50.6 61.4 65.0	NIGHT LEQ 57.4 50.2 62.3 63.7	LDN 65.1 57.3 68.8 70.6	<b>CNEL</b> 65.7 57.5 69.0			

PROJECT:	Gardena Land Use Plan a	and Zoning An	nendments								JOB #:	0462-2020-2
ROADWAY	Western Ave.										DATE:	16-May-23
SEGMENT E	El Segundo Blvd. to 135t	:h St.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA	9	SCENARIO:	Cumulative p	plus Project							
					NOISE		ΑΤΑ					
	DOUDW					_		BEAEN/ER				
	ROADWA	AY CONDITI	IONS					RECEIVER	INPUT D	ΑΤΑ		
ADT =	24,000					RECEIVER D						
SPEED =	24,000 40								50			
						DIST C/L TO			0			
PK HR % =	10					RECEIVER H			5			
NEAR LANE/FAR LANE							NCE FROM R	ECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA			0			
GRADE =	0					ROADWAY	/IEW:	LF ANGLE	-90			
PK HR VOL =	2,400							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIC	DN		
AUTOMOBILES	10					HTH WALL		FT				
MED TRUCKS	10		HARD SITE=	10, SOFT SIT	E=15)	AMBIENT =	0					
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERM)			
	VEHICLE N	/IX DATA						MISC. VE	HICLE INFO	0		
	DAY	51/5	NICUT	DAUX				(D.F.	HEIGHT	SLE DISTANCE		USTMENT
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY					OSTIVILINI
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBII		2.00	43.4		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	43.3		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRUG	CKS =	8.01	43.4	0.0	
					NOISE	Ουτρυ	T DATA					
				NOISE IM	PACTS (N	/ITHOUT 1	OPO OR B	ARRIER SI	HIELDING,			
		VEHICLE TY	PE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL	1		
		AUTOMOBILI	ES	70.2	67.9	67.1	62.3	70.0	70.6			
		AUTOMOBILI MEDIUM TRU	es UCKS	70.2 59.6	67.9 57.3	67.1 53.8	62.3 53.4	70.0 60.5	70.6 60.8			
		AUTOMOBILI	es UCKS	70.2	67.9	67.1	62.3	70.0	70.6			
		AUTOMOBILI MEDIUM TRU	es UCKS IKS	70.2 59.6	67.9 57.3	67.1 53.8	62.3 53.4	70.0 60.5	70.6 60.8			
		AUTOMOBILI MEDIUM TRL HEAVY TRUC	es UCKS IKS	70.2 59.6 69.1	67.9 57.3 65.9	67.1 53.8 63.9	62.3 53.4 64.8	70.0 60.5 71.3	70.6 60.8 71.5			
		AUTOMOBILI MEDIUM TRL HEAVY TRUC	es UCKS IKS	70.2 59.6 69.1 72.9	67.9 57.3 65.9	67.1 53.8 63.9 68.9	62.3 53.4 64.8	70.0 60.5 71.3	70.6 60.8 71.5			
		AUTOMOBILI MEDIUM TRU HEAVY TRUC VEHICULAR N	es UCKS IKS	70.2 59.6 69.1 72.9	67.9 57.3 65.9 70.3	67.1 53.8 63.9 68.9	62.3 53.4 64.8	70.0 60.5 71.3	70.6 60.8 71.5			
		AUTOMOBILI MEDIUM TRI HEAVY TRUCI VEHICULAR N	ES UCKS KS NOISE	70.2 59.6 69.1 72.9	67.9 57.3 65.9 70.3 NOISE CON	67.1 53.8 63.9 68.9	62.3 53.4 64.8 66.9	70.0 60.5 71.3 73.9	70.6 60.8 71.5			

PROJECT:	Gardena Land Use Plan a	and Zoning A	mendments								JOB #:	0462-2020-27
ROADWAY	Vermont Ave.										DATE:	16-May-23
SEGMENT	135th St. to Rosecrans A	we.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA		SCENARIO:	Cumulative	plus Project							
					NOISE		ΑΤΑ					
						-				a <b>T</b> . a		
	ROADWA	Y CONDI	TIONS					RECEIVER		AIA		
ADT =	23,100					RECEIVER D	ISTANCE =		50			
SPEED =	40					DIST C/L TO			0			
PK HR % =	10					RECEIVER H			5			
NEAR LANE/FAR LANE							NCE FROM F	ECEIVER -				
ROAD ELEVATION =	0					PAD ELEVAT			50			
									0			
GRADE =	0					ROADWAY		LF ANGLE	-90			
PK HR VOL =	2,310							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIC	JN		
						11711.14/4		CT.				
AUTOMOBILES	10					HTH WALL :		FT				
MED TRUCKS	10		(HARD SITE=	10, SOFT SI	FE=15)	AMBIENT =	0					
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERM)			
	VEHICLE N	ΛΙΧ DATA						MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	/DE	HEIGHT	SI F DISTANC	E GRADE ADJ	USTMENT
							AUTOMOBI					
AUTOMOBILES	0.708	0.146	0.146	0.958					2.00	40.1		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	40.0		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	40.1	0.0	1
					NOISE	OUTPU	T DATA					
										)		
				NOISE IN	IPACTS (N	/ІТНОИТ 1	OPO OR B	BARRIER S	HELDING,			
				NOISE IN	IPACTS (N	ו THOUT ו	OPO OR B	BARRIER SI	HIELDING			
		VEHICI F T								1		
		VEHICLE T	үре	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL			
		AUTOMOBI	<b>YPE</b> ILES	<b>PK HR LEQ</b> 70.4	<b>DAY LEQ</b> 68.1	<b>EVEN LEQ</b> 67.2	NIGHT LEQ 62.5	LDN 70.2	<b>CNEL</b> 70.8			
		AUTOMOBI MEDIUM TI	<b>YPE</b> ILES RUCKS	<b>PK HR LEQ</b> 70.4 59.8	<b>DAY LEQ</b> 68.1 57.5	<b>EVEN LEQ</b> 67.2 54.0	NIGHT LEQ 62.5 53.6	LDN 70.2 60.7	<b>CNEL</b> 70.8 60.9			
		AUTOMOBI	<b>YPE</b> ILES RUCKS	<b>PK HR LEQ</b> 70.4	<b>DAY LEQ</b> 68.1	<b>EVEN LEQ</b> 67.2	NIGHT LEQ 62.5	LDN 70.2	<b>CNEL</b> 70.8			
		AUTOMOBI MEDIUM TI	YPE ILES RUCKS CKS	<b>PK HR LEQ</b> 70.4 59.8	<b>DAY LEQ</b> 68.1 57.5	<b>EVEN LEQ</b> 67.2 54.0	NIGHT LEQ 62.5 53.6	LDN 70.2 60.7	<b>CNEL</b> 70.8 60.9			
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS CKS	<b>PK HR LEQ</b> 70.4 59.8 69.3	<b>DAY LEQ</b> 68.1 57.5 66.1	<b>EVEN LEQ</b> 67.2 54.0 64.0	NIGHT LEQ 62.5 53.6 64.9	LDN 70.2 60.7 71.5	<b>CNEL</b> 70.8 60.9 71.7			
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS CKS	<b>PK HR LEQ</b> 70.4 59.8 69.3	<b>DAY LEQ</b> 68.1 57.5 66.1 70.4	EVEN LEQ 67.2 54.0 64.0 69.1	NIGHT LEQ 62.5 53.6 64.9	LDN 70.2 60.7 71.5	<b>CNEL</b> 70.8 60.9 71.7			
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS CKS NOISE	PK HR LEQ 70.4 59.8 69.3 73.1	DAY LEQ 68.1 57.5 66.1 70.4 NOISE CON	EVEN LEQ 67.2 54.0 64.0 69.1	NIGHT LEQ 62.5 53.6 64.9 67.1	LDN 70.2 60.7 71.5 74.1	<b>CNEL</b> 70.8 60.9 71.7			
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS CKS	PK HR LEQ 70.4 59.8 69.3 73.1	<b>DAY LEQ</b> 68.1 57.5 66.1 70.4	EVEN LEQ 67.2 54.0 64.0 69.1	NIGHT LEQ 62.5 53.6 64.9	LDN 70.2 60.7 71.5	<b>CNEL</b> 70.8 60.9 71.7			

PROJECT:	Gardena Land Use Plan a	and Zoning Am	endments								JOB #:	0462-2020-2
	Western Ave.	-									DATE:	16-May-23
SEGMENT	Rosecrans Ave. to Marin	e Ave.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA	S	CENARIO:	Cumulative p	olus Project							
					NOISE		DATA					
	ROADWA		ONS					RECEIVER	INPUT D	ATA		
ADT =	28,400					RECEIVER D	ISTANCE =		50			
SPEED =	40					DIST C/L TO	WALL =		0			
PK HR % =	10					RECEIVER H	EIGHT =		5			
NEAR LANE/FAR LANE	DIST = 50					WALL DIST	NCE FROM R	ECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	ION =		0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE	-90			
PK HR VOL =	2,840							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIC	DN		
AUTOMOBILES	10					HTH WALL	• 0	FT				
MED TRUCKS	10	(	HARD SITE=	10, SOFT SIT	E=15)	AMBIENT =	0					
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERM)			
	VEHICLE N	/IIX DATA						MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	/PE	HEIGHT	SLE DISTANCE	GRADE ADJ	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBII		2.00	43.4		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	43.3		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU		8.01	43.4	0.0	1
					NOISE	OUTPU	ΓΟΔΤΔ					
						00110						
					DACTE /14							
				NOISE IM	PACTS (W	/ITHOUT 1	OPO OR B	ARRIER SI	HIELDING)			
		VEHICLE TYP	PE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL			
		AUTOMOBILE	PE IS	<b>PK HR LEQ</b> 70.9	<b>DAY LEQ</b> 68.6	<b>EVEN LEQ</b> 67.8	NIGHT LEQ 63.0	LDN 70.8	<b>CNEL</b> 71.3			
		AUTOMOBILE MEDIUM TRU	PE S ICKS	PK HR LEQ 70.9 60.4	<b>DAY LEQ</b> 68.6 58.0	<b>EVEN LEQ</b> 67.8 54.6	NIGHT LEQ 63.0 54.2	LDN 70.8 61.3	<b>CNEL</b> 71.3 61.5			
		AUTOMOBILE	PE S ICKS	<b>PK HR LEQ</b> 70.9	<b>DAY LEQ</b> 68.6	<b>EVEN LEQ</b> 67.8	NIGHT LEQ 63.0	LDN 70.8	<b>CNEL</b> 71.3			
		AUTOMOBILE MEDIUM TRU	PE IS ICKS IS	PK HR LEQ 70.9 60.4	<b>DAY LEQ</b> 68.6 58.0	<b>EVEN LEQ</b> 67.8 54.6	NIGHT LEQ 63.0 54.2	LDN 70.8 61.3	<b>CNEL</b> 71.3 61.5			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCK	PE IS ICKS IS	PK HR LEQ 70.9 60.4 69.8	<b>DAY LEQ</b> 68.6 58.0 66.6	<b>EVEN LEQ</b> 67.8 54.6 64.6	NIGHT LEQ 63.0 54.2 65.5	LDN 70.8 61.3 72.0	<b>CNEL</b> 71.3 61.5 72.2			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCK	PE IS ICKS IS	PK HR LEQ 70.9 60.4 69.8 73.6	DAY LEQ 68.6 58.0 66.6 71.0	<b>EVEN LEQ</b> 67.8 54.6 64.6 69.6	NIGHT LEQ 63.0 54.2 65.5	LDN 70.8 61.3 72.0	<b>CNEL</b> 71.3 61.5 72.2			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCH VEHICULAR N	PE S CCKS CS OISE	PK HR LEQ 70.9 60.4 69.8 73.6	DAY LEQ 68.6 58.0 66.6 71.0 NOISE CONT	EVEN LEQ 67.8 54.6 64.6 69.6	NIGHT LEQ 63.0 54.2 65.5 67.6	LDN 70.8 61.3 72.0 74.7	<b>CNEL</b> 71.3 61.5 72.2			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCH VEHICULAR N	PE IS ICKS IS	PK HR LEQ 70.9 60.4 69.8 73.6	DAY LEQ 68.6 58.0 66.6 71.0	<b>EVEN LEQ</b> 67.8 54.6 64.6 69.6	NIGHT LEQ 63.0 54.2 65.5	LDN 70.8 61.3 72.0	<b>CNEL</b> 71.3 61.5 72.2			

BLOADARY         Wettern Are         DRE         if APM 73           MEDINITY         Vietarina Are         DRE         Vietarina Are           ATT -         14.400         DRE         DRECTIVE HOLTANCE -         DRECTIVE HOLTANCE -           ATT -         14.400         DRECTIVE HOLTANCE -         DRECTIVE HOLTANCE -<	PROJECT: G	ardena Land Use Plan	and Zoning A	mendments								JOB #:	0462-2020-27
Control         Cardinal Control         Section 1000000000000000000000000000000000000	ROADWAY W	estern Ave.											
NOISE INPUT DATA           ROADWAY CONDITIONS         RECEIVER INFUT DATA           ADT =         24,400         0												ENGINEER:	C. Pincock
ROADWAY CONDITIONS         RECEIVER INPUT DATA           ADI =         34.400         DOI: (1) to WALL =         0           SYED =         40         DOI: (1) to WALL =         0           SYED =         40         DOI: (1) to WALL =         0           SYED =         40         DOI: (1) to WALL =         0           SYED =         0         WALLDSTAKE FROM RECENT: =         50           GRADE =         0         PROLINGING =         0           GRADE =         0         PROLINGING =         0           GRADE =         0         PROLINGING =         0           STIE CONDITIONS         WALL INFORMATION         If WALL =         0           MID TRUCKS         10         (FARGE TFIELD, SOFT STIF=IS)         PT           AUTOMOBILES         10         (FARGE TFIELD, SOFT STIF=IS)         PT           MID TRUCKS         10         (FARD STIF=ID, SOFT STIF=IS)         RARIBRE =         0 (D-WALL]_I=BREM)           VEHICLE MIX DATA         MISC. VEHICLE INFO         IERWIT RUCKS         0.0         41.4         -:           MID DUM TRUCKS         0.329         0.322         0.011         MIDDUM TRUCKS =         0.0         43.4         0.0           MICOND MELS	LOCATION: G	ardena, CA		SCENARIO:	Cumulative p	plus Project							
ADT *         34,000         RESUPE DISTANCE *         10           WILK % =         10         DIST G/L TO WALL =         0           WALL NEW TOWN RECEIVER =         50         DIST G/L TO WALL =         0           MAD T *         0         DIST G/L TO WALL =         0           MAD T *         0         DIST G/L TO WALL =         0           MAD T *         0         DIST G/L TO WALL =         0           GROUE *         0         DIST G/L TO WALL =         0           GROUE *         0         DIST G/L TO WALL =         0           GROUE *         3,440         DIST G/L TO WALL =         0           MID TOLICS         10         (HAB STE=0, SOT STE=12)         MIT WALL =         0 TT           MUT TRUCKS         10         (HAB STE=0, SOT STE=12)         MISC. VEHICLE INFO         MISC. VEHICLE INFO           VEHICLE TYPE         DAY         EVE         NIST DALL         MISC. VEHICLE INFO         MISC. VEHICLE INFO           VEHICLE TYPE         DAY         EVE         NIST DALL         MISC. VEHICLE INFO         MISC. VEHICLE INFO           VEHICLE TYPE         DAY         EVE         NISC. VEHICLE INFO         MISC. VEHICLE INFO           VEHICLE TYPE         DAY         D						NOISE	INPUT I	DATA					
SPEED =         40         OPT (V TO VAUL =         0           9K HR X =         10         RECEIVER HEIGHT =         3           9K HR X =         10         RECEIVER HEIGHT =         3           9K HR X =         0         RECEIVER HEIGHT =         3           9K HR X =         0         RECEIVER HEIGHT =         0           9K HR X0L =         3.400         RECEIVER HEIGHT =         0           9K HR VDL =         3.400         RECEIVER HEIGHT =         0           9K HR VDL =         3.400         RECEIVER HEIGHT =         0           9K HR VDL =         3.400         RECEIVER HEIGHT =         0           9K HR VDL =         3.400         RECEIVER HEIGHT =         0           9K HR VDL =         3.400         RECEIVER HEIGHT =         0           9K HR VDL =         3.400         RECEIVER HEIGHT =         0           9K HR VDL =         10         (HARD STE-10, SOFT STE-15)         RECEIVER HEIGHT =         0           9K HR VDL S         10         (HARD STE-10, SOFT STE-15)         RECEIVER HEIGHT SEEDSTANCE GRADE ADJUSTMENT           9K HICLE TYPE         DAY         EVE NICLE TYPE         HEIGHT SEEDSTANCE GRADE ADJUSTMENT           9K HICLE TYPE         DAY         RECEIVE		ROADWA	Y CONDIT	IONS					RECEIVER	INPUT D	ATA		
SPEED =         40         OPT (V TO VAUL =         0           9K HR X =         10         RECEIVER HEIGHT =         3           9K HR X =         10         RECEIVER HEIGHT =         3           9K HR X =         0         RECEIVER HEIGHT =         3           9K HR X =         0         RECEIVER HEIGHT =         0           9K HR X0L =         3.400         RECEIVER HEIGHT =         0           9K HR VDL =         3.400         RECEIVER HEIGHT =         0           9K HR VDL =         3.400         RECEIVER HEIGHT =         0           9K HR VDL =         3.400         RECEIVER HEIGHT =         0           9K HR VDL =         3.400         RECEIVER HEIGHT =         0           9K HR VDL =         3.400         RECEIVER HEIGHT =         0           9K HR VDL =         3.400         RECEIVER HEIGHT =         0           9K HR VDL =         10         (HARD STE-10, SOFT STE-15)         RECEIVER HEIGHT =         0           9K HR VDL S         10         (HARD STE-10, SOFT STE-15)         RECEIVER HEIGHT SEEDSTANCE GRADE ADJUSTMENT           9K HICLE TYPE         DAY         EVE NICLE TYPE         HEIGHT SEEDSTANCE GRADE ADJUSTMENT           9K HICLE TYPE         DAY         RECEIVE													
PK-HR SF         10         DERCHAR HEIGHT =         5           NEAR LANK/FRAN EXST =         50         WALL INSTANCE FROM RECEIVER =         50           GRADE =         0         RADELIVATION =         0           GRADE =         3.440         REAN LINFORMATION         REAN LINFORMATION           MICTIONGBLES         10         INFINITIONS         WALL INFORMATION           AUTOMOBILES         10         INFINITIONS         WALL INFORMATION           VEHICLE MIX DATA         OFF         MISIC VEHICLE INFO           VEHICLE TYPE         DAY         EVE         NIGHT DAILY           VEHICLE TYPE         DAY         EVE         NIGHT DAILY           AUTOMOBILES         0.788         0.426         0.595           0.577         0.090         0.332         0.911           NOISE OUTPUT DATA         NOISE OUTPUT DATA           NOISE IMPACTS (WITHOUT TOPO OR BARKIER SHIELOING)         43.4         0.0           MIDIMIN TRUCKS         0.32         0.54         5.5         6.5	ADT =	34,400					RECEIVER D	ISTANCE =		50			
NEAR LINEAR LARE DST *       50         NOAD LELEVATION *       0         NOAD LELEVATION *       0         PADE LEVATION *       0         PADE LEVATION *       0         PR HR VOL *       3,440         NET CONDITIONS       WALL DISTANCE FROM RECEIVER *       50         PR HR VOL *       3,440         NET CONDITIONS       WALL INFORMATION         AUTOMOBILES       10       (HARD SITE = 10, SOFT SITE = 15)         AURICE TYPE       DAY       EVE NIGHT DAILY       MISC. VEHICLE TYPE         VEHICLE TYPE       DAY       EVE NIGHT DAILY       VEHICLE TYPE         MEDUM TRUCKS       0.290       0.332       0.031         HEAVY TRUCKS       0.577       0.990       0.332       0.31	SPEED =	40					DIST C/L TC	WALL =		0			
NOAD ELEVATION *       0         GRADE =       0         DRADE =       0         RIA ROL =       3.40         VERINGE *         OF ADDRES *         VERING *         MIGN TRUCKS         0.708       0.146         NOISE OUTPUT DATA         NOISE OUTPUT DATA         NOISE INFLACE TYPE         NOISE INFLACE TYPE         VERING *         VERING *         NOISE OUTPUT DATA     <	PK HR % =	10					RECEIVER H	EIGHT =		5			
GRAGE =         0         NORMATIVENE         LF ANGLE         90 BT AN RUE         90 BT ANGLE         90 BT ANG	NEAR LANE/FAR LANE [	DIST = 50					WALL DIST	NCE FROM F	RECEIVER =	50			
Rt HR VOL:=       3,440       RT ANGLE       90 DF ANGLE       100 DF ANGLE       0 DF ANGLE	ROAD ELEVATION =	0					PAD ELEVA	TION =		0			
VEHICLE TYPE         DAY         EVE         NIGHT         DAILY         VEHICLE TYPE         HEIGHT         SLE DISTANCE         GRADE ADJUSTMENT           AUTOMOBILIS         10         (HARD SITE=10, SDIT SITE=12)         BARRER =         0 (0=WALL]=BERM)           VEHICLE TYPE         DAY         EVE         NIGHT         DAILY         VEHICLE TYPE         HEIGHT         SLE DISTANCE         GRADE ADJUSTMENT           AUTOMOBILIS         0.788         0.146         0.146         0.958         MISC. VEHICLE INFO           VEHICLE TYPE         DAY         EVE         NIGHT         DAILY         VEHICLE TYPE         HEIGHT         SLE DISTANCE         GRADE ADJUSTMENT           AUTOMOBILIS         0.788         0.146         0.146         0.958         MISICUT TRUCKS         2.00         4.3.4         -           HEAVY TRUCKS         0.377         0.090         0.332         0.031         HELVY TRUCKS         8.01         43.4         0.0           NOISE OUTPUT DATA         NOISE OUTPUT DATA         NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)         MELVY TRUCKS         7.0.6         7.5.5         7.5.5           MIDUM TRUCKS         7.1.8         5.9.5         6.8.5         7.5.5         7.5.5         7.5.5							ROADWAY	VIEW:		-90			
VEHICLE TYPE         DAY         EVE         NIGHT         DAILY         VEHICLE TYPE         HEGHT         SLE DISTANCE         GRADE ADJUSTMENT           VUTOMOBILES         10         (HARD SITE=10, SOFT SITE=15)         BARIER =         0 (D-WALL1=BERM)           VEHICLE TYPE         DAY         EVE         NIGHT         DAILY         VEHICLE TYPE         HEGHT         SLE DISTANCE         GRADE ADJUSTMENT           AUTOMOBILES         0.708         0.146         0.446         0.958         AUTOMOBILES         2.00         4.3.4            AUTOMOBILES         0.777         0.090         0.332         0.011         MEDIUM TRUCKS         8.01         43.4         0.0           NOISE OUTPUT DATA           NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)           NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)           NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)           NOISE CONTOUR (FT)           MEDIUM TRUCKS         71.8         69.5         75.5         75.8	PK HR VOL =	3,440								90			
AUTOMOBILES       10       (HARD STE=10, SOFT SITE=15)       HTH WALL =       0 FT         MED TRUCKS       10       (HARD STE=10, SOFT SITE=15)       BARIER =       0 (0-WALL, 1=BERM)         VEHICLE MIX DATA       MISC. VEHICLE INFO         VEHICLE TYPE       DAY       EVE       NIGHT       DALY       VEHICLE TYPE       HEIGHT       SLE DISTANCE GRADE ADJUSTMENT         AUTOMOBILES       0.038       0.11       WEINCES TYPE       HEIGHT SLE DISTANCE GRADE ADJUSTMENT         AUTOMOBILES       0.039       0.011       WEINCES TYPE       HEIGHT SLE DISTANCE GRADE ADJUSTMENT         AUTOMOBILES       0.039       0.011       WEINCES TYPE       MUSE DISTANCE GRADE ADJUSTMENT         AUTOMOBILES       0.039       0.011       WEINCES TYPE         NOISE OUTPUT DATA       NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)         WEINCLE TYPE       NEINENT         AUTOMOBILES       1.18       6.66.6       6.63.7       7.2.         VEHICLE TYPE       NEINENT									DF ANGLE	180			
AUTOMOBILES       10       (HARD STE=10, SOFT SITE=15)       HTH WALL =       0 FT         MED TRUCKS       10       (HARD STE=10, SOFT SITE=15)       BARIER =       0 (0-WALL, I-BERM)         VEHICLE MIX DATA       MISC. VEHICLE INFO         VEHICLE TYPE       DAY       EVE       NIGHT       DALY       VEHICLE TYPE       HEIGHT       SLE DISTANCE GRADE ADJUSTMENT         AUTOMOBILES       0.708       0.146       0.146       0.958       AUTOMOBILES       2.00       43.4          MEDIUM TRUCKS       0.708       0.146       0.958       AUTOMOBILES       2.00       43.4          MOSE OUTPUT DATA         NOISE OUTPUT DATA         VEHICLE TYPE       PK HR LEQ       DAY       60.5       63.5       71.6       72.2         MOISE OUTPUT DATA         VEHICLE TYPE       PK HR LEQ       DAY       10.6       10.4       0.0         VEHICLE TYPE       PK HR LEQ       DAY       10.4       0.0       10.4       10.4       0.0         VEHICLE TYPE       PK HR LEQ       DAY       FVEHICLE TYPE       10.1       10.1       10.1       10.1													
MED TRUCKS       10       (HARD SITE=10, SOFT SITE=15)       MMBIENT =       0         HWY TRUCKS       10       BARRIER =       0 (0+WALL_1=BERM)         VEHICLE MIX DATA       MISC. VEHICLE INFO         VEHICLE TYPE       DAY       EVE       NIGHT       DAILY         AUTOMOBILES       0.708       0.146       0.146       0.958       AUTOMOBILES =       2.00       43.4          MEDIUM TRUCKS       0.704       0.079       0.217       0.011       MEDIUM TRUCKS =       4.00       43.3          MEDIUM TRUCKS       0.577       0.699       0.332       0.031       MEDIUM TRUCKS =       8.01       43.4       0.0         NOISE OUTPUT DATA         MUTMOBILES 7 1.8       69.5       68.6       63.9       71.6       72.2         MUTMOBILES 71.8       69.5       68.6       63.9       71.6       72.2         MEDIUM TRUCKS       70.6       67.5       55.4       55.0       62.1       62.3         MEDIUM TRUCKS       71.8       69.5       68.6       63.9       71.6       72.2         MEDIUM TRUCKS       70.6       67.5       55.4       55.0       62.1       62.3 <td></td> <td>SITE CON</td> <td>DITIONS</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>WALL INF</td> <td>ORMATIC</td> <td>DN</td> <td></td> <td></td>		SITE CON	DITIONS						WALL INF	ORMATIC	DN		
MED TRUCKS       10       (HARD SITE=10, SOFT SITE=15)       MBIENT =       0         HYY TRUCKS       10       BARIER =       0 (0=WALL_1=BERM)         VEHICLE TYPE       DAY       EVE       NIGHT       DAILY       VEHICLE TYPE       HEIGHT       SLE DISTANCE GRADE ADJUSTMENT         AUTOMOBILES       0.708       0.146       0.146       0.958       AUTOMOBILES =       2.00       43.4          MEDIUM TRUCKS       0.704       0.079       0.217       0.011       MEDIUM TRUCKS =       4.00       43.3          MEDIUM TRUCKS       0.577       0.090       0.332       0.031       MEDIUM TRUCKS =       8.01       43.4       0.0         KIPIECE TYPE       PK HR LEQ       DAY LEQ       EVEN LEQ NIGHT LEQ       10       43.4       0.0         KIPIECE TYPE       PK HR LEQ DAY LEQ       EVEN LEQ NIGHT LEQ       LDN       CNEL         KUTOMOBILES 71.8       69.5       68.6       63.9       71.6       72.2         MEDUM TRUCKS       71.8       69.5       68.6       63.9       71.6       72.2         MEDUM TRUCKS       71.8       70.6       67.5       75.5       75.8 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>													
NYY TRUCKS         10         BARRER =         0 (0=WALL_1=BERM)           VEHICLE MIX DATA         MISC. VEHICLE INFO           VEHICLE TYPE         DAY         EVE         NIGHT         DAILY         VEHICLE TYPE         HEIGHT         SLE DISTANCE         GRADE ADJUSTMENT           AUTOMOBILES         0.708         0.146         0.146         0.959         AUTOMOBILES =         2.00         43.4            MEDIUM TRUCKS         0.704         0.079         0.217         0.011         MEDIUM TRUCKS =         4.00         43.3            MEDIUM TRUCKS         0.577         0.990         0.332         0.031         HEAVY TRUCKS =         8.01         43.4         0.0           NOISE INTPLOT DATA         NOISE INTPLOT DATO         NOISE INTPLOT OR OR BARRIER SHIELDING)           MEDIUM TRUCKS         71.6         65.5         65.6         63.7         72.2         73.1           MEDIUM TRUCKS         74.5         71.8         70.5         65.5         75.5         75.8													
VEHICLE MIX DATA         MISC. VEHICLE INFO           VEHICLE TYPE         DAY         EVE         NIGHT         DAILY         VEHICLE TYPE         HEIGHT         SLE DISTANCE         GRADE ADJUSTMENT           AUTOMOBILES         0.708         0.146         0.146         0.588         AUTOMOBILES =         2.00         43.4            MEDIUM TRUCKS         0.704         0.079         0.217         0.011         MEDIUM TRUCKS =         8.00         43.3            MEDIUM TRUCKS         0.577         0.090         0.332         0.031         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         LDN         CNEL           VEHICLE TYPE         PK HR LEQ         DAY LEQ         EVEN LEQ         LDN         CNEL           VEHICLE TYPE         PK HR LEQ         DAY LEQ         EVEN LEQ         LDN         CNEL           VEHICLE TYPE         PK HR LEQ         DAY LEQ         EVEN LEQ         LDN         CNEL           VEHICULE TYPE         PK HR LEQ         DAY				(HARD SITE=	10, SOFT SIT	E=15)							
VEHICLE TYPE         DAY         EVE         NIGHT         DAILY         VEHICLE TYPE         HEIGHT         SLE DISTANCE         GRADE ADJUSTMENT           AUTOMOBILES         0.708         0.146         0.146         0.958         AUTOMOBILES =         2.00         43.4            MEDIUM TRUCKS         0.704         0.079         0.217         0.011         MEDIUM TRUCKS=         4.00         43.3            MEDIUM TRUCKS         0.577         0.090         0.332         0.031         HEAVY TRUCKS =         8.01         43.4         0.0	HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERM)			
VEHICLE TYPE         DAY         EVE         NIGHT         DAILY         VEHICLE TYPE         HEIGHT         SLE DISTANCE         GRADE ADJUSTMENT           AUTOMOBILES         0.708         0.146         0.958         AUTOMOBILES =         2.00         43.4            MEDIUM TRUCKS         0.704         0.079         0.217         0.011         MEDIUM TRUCKS=         4.00         43.3            MEDIUM TRUCKS         0.577         0.090         0.332         0.031         HEAVY TRUCKS =         8.01         43.4         0.0													
VEHICLE TYPE         DAY         EVE         NIGHT         DAILY         VEHICLE TYPE         HEIGHT         SLE DISTANCE         GRADE ADJUSTMENT           AUTOMOBILES         0.708         0.146         0.958         AUTOMOBILES =         2.00         43.4            MEDIUM TRUCKS         0.704         0.079         0.217         0.011         MEDIUM TRUCKS=         4.00         43.3            MEDIUM TRUCKS         0.577         0.090         0.332         0.031         HEAVY TRUCKS =         8.01         43.4         0.0		VFHICLE N	ΛΙΧ DATA						MISC. VE	HICLE INFO	0		
VICTOR         D.U.         <											-		
VEHICLE TYPE         PK HR LEQ         DAY LEQ         EVEN LEQ         ILION         CONSE         CONSE<										насит			LICTNAENIT
MEDIUM TRUCKS       0.704       0.079       0.217       0.011       MEDIUM TRUCKS=       4.00       43.3          HEAVY TRUCKS       0.577       0.090       0.332       0.031       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       71.8       69.5       68.6       63.9       71.6       72.2         MEDIUM TRUCKS       70.6       67.5       65.4       66.3       72.9       73.1         HEAVY TRUCKS       70.6       67.5       65.4       66.3       72.9       73.1         VEHICULAR NOISE       74.5       71.8       70.5       68.5       75.5       75.8												GRADE ADJ	OSTIMENT
HEAVY TRUCKS 0.577 0.090 0.332 0.031 HEAVY TRUCKS = 8.01 43.4 0.0 NOISE OUTPUT DATA NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING) <u>VEHICLE TYPE</u> <u>PK HR LEQ DAY LEQ EVEN LEQ NIGHT LEQ LDN CNEL</u> <u>AUTOMOBILES 71.8 69.5 68.6 63.9 71.6 72.2</u> <u>MEDIUM TRUCKS 61.2 58.9 55.4 55.0 62.1 62.3</u> <u>HEAVY TRUCKS 70.6 67.5 65.4 55.0 72.9 73.1</u> <u>VEHICULAR NOISE 74.5 71.8 70.5 68.5 75.5 75.8</u>													
NOISE OUTPUT DATA         NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)         VEHICLE TYPE       PK HR LEQ       DAY LEQ       EVEN LEQ       NIGHT LEQ       LDN       CNEL         AUTOMOBILES       71.8       69.5       68.6       63.9       71.6       72.2         MEDIUM TRUCKS       61.2       58.9       55.4       55.0       62.1       62.3         HEAVY TRUCKS       70.6       67.5       65.4       66.3       72.9       73.1         VEHICULAR NOISE       74.5       71.8       70.5       68.5       75.5       75.8												0.0	
NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)           VEHICLE TYPE         PK HR LEQ         DAY LEQ         EVEN LEQ         NIGHT LEQ         LDN         CNEL           AUTOMOBILES         71.8         69.5         68.6         63.9         71.6         72.2           MEDIUM TRUCKS         61.2         58.9         55.4         55.0         62.1         62.3           HEAVY TRUCKS         70.6         67.5         65.4         66.3         72.9         73.1           VEHICULAR NOISE         74.5         71.8         70.5         68.5         75.5         75.8	HEAVE TRUCKS	0.577	0.090	0.552	0.031			HEAVY IKU	CK5 =	8.01	43.4	0.0	
NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)           VEHICLE TYPE         PK HR LEQ         DAY LEQ         EVEN LEQ         NIGHT LEQ         LDN         CNEL           AUTOMOBILES         71.8         69.5         68.6         63.9         71.6         72.2           MEDIUM TRUCKS         61.2         58.9         55.4         55.0         62.1         62.3           HEAVY TRUCKS         70.6         67.5         65.4         66.3         72.9         73.1           VEHICULAR NOISE         74.5         71.8         70.5         68.5         75.5         75.8													
VEHICLE TYPE         PK HR LEQ         DAY LEQ         EVEN LEQ         NIGHT LEQ         LDN         CNEL           AUTOMOBILES         71.8         69.5         68.6         63.9         71.6         72.2           MEDIUM TRUCKS         61.2         58.9         55.4         55.0         62.1         62.3           HEAVY TRUCKS         70.6         67.5         65.4         66.3         72.9         73.1           U         U         U         U         U         U         U         U           VEHICULAR NOISE         74.5         71.8         70.5         68.5         75.5         75.8           NOISE LEVELS         70 dBA         65 dBA         60 dBA         55 dBA         55 dBA						NOISE	OUTPU	T DATA					
AUTOMOBILES       71.8       69.5       68.6       63.9       71.6       72.2         MEDIUM TRUCKS       61.2       58.9       55.4       55.0       62.1       62.3         HEAVY TRUCKS       70.6       67.5       65.4       66.3       72.9       73.1         VEHICULAR NOISE         VEHICULAR NOISE       74.5       71.8       70.5       68.5       75.5       75.8         NOISE CONTUR (FT)         NOISE LEVELS       70 dBA       65 dBA       60 dBA       55 dBA					NOISE IM	PACTS (W	ITHOUT	OPO OR E	BARRIER SI	HIELDING,			
AUTOMOBILES       71.8       69.5       68.6       63.9       71.6       72.2         MEDIUM TRUCKS       61.2       58.9       55.4       55.0       62.1       62.3         HEAVY TRUCKS       70.6       67.5       65.4       66.3       72.9       73.1         VEHICULAR NOISE         VEHICULAR NOISE       74.5       71.8       70.5       68.5       75.5       75.8         NOISE CONTOUR (FT)         NOISE LEVELS       70 dBA       65 dBA       60 dBA       55 dBA													
AUTOMOBILES       71.8       69.5       68.6       63.9       71.6       72.2         MEDIUM TRUCKS       61.2       58.9       55.4       55.0       62.1       62.3         HEAVY TRUCKS       70.6       67.5       65.4       66.3       72.9       73.1         VEHICULAR NOISE         VEHICULAR NOISE       74.5       71.8       70.5       68.5       75.5       75.8         NOISE CONTOUR (FT)         NOISE LEVELS       70 dBA       65 dBA       60 dBA       55 dBA													
MEDIUM TRUCKS       61.2       58.9       55.4       55.0       62.1       62.3         HEAVY TRUCKS       70.6       67.5       65.4       66.3       72.9       73.1         VEHICULAR NOISE         VEHICULAR NOISE       74.5       71.8       70.5       68.5       75.5       75.8         NOISE CONTUUR (FT)         NOISE LEVELS       70 dBA       65 dBA       60 dBA       55 dBA			VEHICLE TY	'PE	PK HR LEO	DAY LEQ	EVEN LEO	NIGHT LEO	LDN	CNEL			
HEAVY TRUCKS     70.6     67.5     65.4     66.3     72.9     73.1       VEHICULAR NOISE       74.5     71.8     70.5     68.5     75.5     75.8											,		
NOISE CONTOUR (FT)         NOISE LEVELS       70 dBA       65 dBA       55 dBA			AUTOMOBIL	ES	71.8	69.5	68.6	63.9	71.6	72.2			
NOISE CONTOUR (FT)         NOISE LEVELS       70 dBA       65 dBA       55 dBA			AUTOMOBIL MEDIUM TR	.es UCKS	71.8 61.2	69.5 58.9	68.6 55.4	63.9 55.0	71.6 62.1	72.2 62.3			
NOISE LEVELS         70 dBA         65 dBA         60 dBA         55 dBA			AUTOMOBIL MEDIUM TR HEAVY TRUC	ES UCKS CKS	71.8 61.2 70.6	69.5 58.9 67.5	68.6 55.4 65.4	63.9 55.0 66.3	71.6 62.1 72.9	72.2 62.3 73.1			
NOISE LEVELS         70 dBA         65 dBA         60 dBA         55 dBA			AUTOMOBIL MEDIUM TR HEAVY TRUC	ES UCKS CKS	71.8 61.2 70.6	69.5 58.9 67.5	68.6 55.4 65.4	63.9 55.0 66.3	71.6 62.1 72.9	72.2 62.3 73.1			
NOISE LEVELS         70 dBA         65 dBA         60 dBA         55 dBA			AUTOMOBIL MEDIUM TR HEAVY TRUC	ES UCKS CKS	71.8 61.2 70.6	69.5 58.9 67.5	68.6 55.4 65.4	63.9 55.0 66.3	71.6 62.1 72.9	72.2 62.3 73.1			
CNEL 192 607 1920 6071			AUTOMOBIL MEDIUM TR HEAVY TRUC	ES UCKS CKS	71.8 61.2 70.6 74.5	69.5 58.9 67.5 71.8	68.6 55.4 65.4 70.5	63.9 55.0 66.3	71.6 62.1 72.9	72.2 62.3 73.1			
			AUTOMOBIL MEDIUM TR HEAVY TRUC VEHICULAR	les UCKS CKS NOISE	71.8 61.2 70.6 74.5	69.5 58.9 67.5 71.8 NOISE CON	68.6 55.4 65.4 70.5	63.9 55.0 66.3 68.5	71.6 62.1 72.9 75.5	72.2 62.3 73.1			

PROJECT: G	iardena Land Use Plan a	and Zoning	Amendments								JOB #:	0462-2020-27
	Vestern Ave.										DATE:	16-May-23
SEGMENT 1	66th St. to Artesia Blvd	l.									ENGINEER:	C. Pincock
LOCATION: G	iardena, CA		SCENARIO:	Cumulative	plus Project							
					NOISE		ΔΤΔ					
					NOISE							
	ROADWA	AY CONDI	TIONS					RECEIVER	INPUT D	ΑΤΑ		
ADT =	34,200					RECEIVER D			50			
SPEED =	40					DIST C/L TO			0			
PK HR % =	10					RECEIVER H			5			
NEAR LANE/FAR LANE I							NCE FROM F	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVAT			0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE	-90			
PK HR VOL =	3,420							RT ANGLE	90			
								DF ANGLE	180			
		DITIONS						WALL INF	ODMATIC			
	SITE CON	DITIONS						WALLINF	ORMATIC	JN		
	10						0					
AUTOMOBILES	10			10 0057 0		HTH WALL		FT				
MED TRUCKS HVY TRUCKS	10		(HARD SITE=	10, SOFT SI	TE=15)	AMBIENT = BARRIER =						
HVI INDENS	10					DANNER -	U	(0=WALL,1=	DERIVIJ			
	VEHICLE N	AIX DATA						MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE T	VDF	HEIGHT	SLE DISTANC	E GRADE ADJ	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI		2.00	43.4		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	43.3		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU		8.01	43.4	0.0	)
	0.577	0.050	0.352	0.051					0.01	-3	0.0	
					NOISE	OUTPU'	T DATA					
				NOISE IN	IPACTS (N	/ITHOUT 1	OPO OR E	BARRIER SI	HIELDING,	)		
										1		
		VEHICLE T	YPE	PK HR LEO	DAY LEO	EVEN LEO	NIGHT LEO	LDN	CNEL			
		VEHICLE T			DAY LEQ				<b>CNEL</b> 72.1			
		AUTOMOB	ILES	71.7	69.4	68.6	63.8	71.6	72.1			
			ILES RUCKS									
		AUTOMOB MEDIUM T HEAVY TRU	iles RUCKS JCKS	71.7 61.2 70.6	69.4 58.8 67.4	68.6 55.4 65.4	63.8 55.0 66.3	71.6 62.1 72.8	72.1 62.3 73.0			
		AUTOMOB MEDIUM T	iles RUCKS JCKS	71.7 61.2	69.4 58.8	68.6 55.4	63.8 55.0	71.6 62.1	72.1 62.3			
		AUTOMOB MEDIUM T HEAVY TRU	iles RUCKS JCKS	71.7 61.2 70.6	69.4 58.8 67.4	68.6 55.4 65.4	63.8 55.0 66.3	71.6 62.1 72.8	72.1 62.3 73.0			
		AUTOMOB MEDIUM T HEAVY TRU	iles RUCKS JCKS	71.7 61.2 70.6	69.4 58.8 67.4	68.6 55.4 65.4 70.4	63.8 55.0 66.3	71.6 62.1 72.8	72.1 62.3 73.0			
		AUTOMOB MEDIUM T HEAVY TRU	iles RUCKS JCKS	71.7 61.2 70.6 74.4	69.4 58.8 67.4 71.8	68.6 55.4 65.4 70.4	63.8 55.0 66.3	71.6 62.1 72.8	72.1 62.3 73.0			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS R NOISE	71.7 61.2 70.6 74.4	69.4 58.8 67.4 71.8 NOISE CON	68.6 55.4 65.4 70.4	63.8 55.0 66.3 68.4	71.6 62.1 72.8 75.5	72.1 62.3 73.0			

PROJECT:	ardena Lond Lice Place	and Zoning	Amondmont								JOB #:	0462-2020-27
	Gardena Land Use Plan a Vestern Ave.	and Zoning A	menaments								DATE:	16-May-23
	Artesia Blvd. to 182nd S	t.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA		SCENARIO:	Cumulative	plus Project							
					NOISE		ΔΤΔ					
					NOISE							
	ROADWA	AY CONDI	TIONS					RECEIVER	INPUT D	ΑΤΑ		
ADT =	31,500					RECEIVER D			50			
SPEED = PK HR % =	40 10					DIST C/L TO RECEIVER H			0			
NEAR LANE/FAR LANE						WALL DISTA		RECEIVER =	5 50			
ROAD ELEVATION =	0					PAD ELEVAT			0			
GRADE =	0					ROADWAY		LF ANGLE	-90			
PK HR VOL =	3,150							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIC	DN		
AUTOMOBILES	10					HTH WALL =	0	FT				
MED TRUCKS	10		(HARD SITE=	=10, SOFT SI	TE=15)	AMBIENT =	0					
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERM)			
	VEHICLE N	IIX DATA						MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE T	YPE	HEIGHT	SLE DISTANC	E GRADE AD	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI	LES =	2.00	43.4		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR	RUCKS=	4.00	43.3		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	43.4	0.0	)
					NOISE	OUTPU	Γ DATA					
				NOISE IN	ADACTE (14	/ІТНОИТ 1			HIELDING	)		
					IPACIS (W		OPO ON L	ANNIEN SI				
					MPACIS (W		OFO OK L	SANNIEN SI				
		VEHICLE T							CNEL	1		
		<b>VEHICLE T</b> AUTOMOB	YPE	<b>PK HR LEQ</b> 71.4		<b>EVEN LEQ</b> 68.2			<b>CNEL</b> 71.8			
			TYPE ILES	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN				
		AUTOMOB	<b>YPE</b> ILES RUCKS	<b>PK HR LEQ</b> 71.4	<b>DAY LEQ</b> 69.1	<b>EVEN LEQ</b> 68.2	NIGHT LEO 63.5	LDN 71.2	71.8			
		AUTOMOBI MEDIUM TI	YPE ILES RUCKS JCKS	<b>PK HR LEO</b> 71.4 60.8	<b>DAY LEQ</b> 69.1 58.5	<b>EVEN LEQ</b> 68.2 55.0	NIGHT LEO 63.5 54.6	LDN 71.2 61.7	71.8 61.9			
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS JCKS	<b>PK HR LEQ</b> 71.4 60.8 70.3	<b>DAY LEQ</b> 69.1 58.5 67.1	<b>EVEN LEQ</b> 68.2 55.0 65.1	NIGHT LEO 63.5 54.6 65.9	LDN 71.2 61.7 72.5	71.8 61.9 72.7			
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS JCKS	<b>PK HR LEQ</b> 71.4 60.8 70.3	<b>DAY LEQ</b> 69.1 58.5 67.1 71.4	<b>EVEN LEQ</b> 68.2 55.0 65.1 70.1	NIGHT LEO 63.5 54.6 65.9	LDN 71.2 61.7 72.5	71.8 61.9 72.7			
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS JCKS R NOISE	PK HR LEC 71.4 60.8 70.3 74.1	DAY LEQ 69.1 58.5 67.1 71.4 NOISE CON	EVEN LEQ 68.2 55.0 65.1 70.1	NIGHT LEC 63.5 54.6 65.9 68.1	LDN 71.2 61.7 72.5 75.1	71.8 61.9 72.7			
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS JCKS	PK HR LEC 71.4 60.8 70.3 74.1	<b>DAY LEQ</b> 69.1 58.5 67.1 71.4	<b>EVEN LEQ</b> 68.2 55.0 65.1 70.1	NIGHT LEO 63.5 54.6 65.9	LDN 71.2 61.7 72.5	71.8 61.9 72.7			

	Gardena Land Use Plan a	and Zoning Arr	nendments								JOB #:	0462-2020-27
	Normandie Ave.										DATE: ENGINEER:	16-May-23
	135th St. to Rosecrans A										ENGINEEK:	C. Pincock
LOCATION: G	Gardena, CA	2	SCENARIO:	Cumulative p	olus Project							
					NOISE	INPUT I	DATA					
	ROADWA	AY CONDITI	ONS					RECEIVER	INPUT D	ATA		
ADT =	20,400					RECEIVER D	ISTANCE =		50			
SPEED =	35					DIST C/L TC	WALL =		0			
PK HR % =	10					RECEIVER H	EIGHT =		5			
NEAR LANE/FAR LANE	DIST = 40					WALL DIST	NCE FROM F	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	rion =		0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE	-90			
PK HR VOL =	2,040							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIC	ON		
AUTOMOBILES	10					HTH WALL	= 0	FT				
MED TRUCKS	10	(	HARD SITE=	10, SOFT SITI	E=15)	AMBIENT =	0					
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERM)			
	VEHICLE N	ΛΙΧ DATA						MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	(PE	HEIGHT	SLE DISTANCI	E GRADE ADJ	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI	LES =	2.00	45.9		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR	RUCKS=	4.00	45.8		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	45.9	0.0	1
					NOICE	Ουτρυ						
					NUISE							
								SARRIFR S	HIFLDING			
								BARRIER SI	HIELDING)			
				NOISE IM	PACTS (W	/ITHOUT 1	OPO OR E					
			PE	NOISE IM	PACTS (W DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL			
		AUTOMOBILE	<b>PE</b> ES	NOISE IM PK HR LEQ 67.6	PACTS (W DAY LEQ 65.3	EVEN LEQ 64.4	NIGHT LEQ 59.7	LDN 67.4	<b>CNEL</b> 68.0			
		AUTOMOBILE MEDIUM TRU	PE ES JCKS	NOISE IM PK HR LEQ 67.6 57.8	PACTS (W DAY LEQ 65.3 55.5	<b>EVEN LEQ</b> 64.4 52.0	<b>NIGHT LEQ</b> 59.7 51.6	LDN 67.4 58.7	<b>CNEL</b> 68.0 58.9			
		AUTOMOBILE	PE ES JCKS	NOISE IM PK HR LEQ 67.6	PACTS (W DAY LEQ 65.3	EVEN LEQ 64.4	NIGHT LEQ 59.7	LDN 67.4	<b>CNEL</b> 68.0			
		AUTOMOBILE MEDIUM TRU	PE ES JCKS KS	NOISE IM PK HR LEQ 67.6 57.8	PACTS (W DAY LEQ 65.3 55.5	<b>EVEN LEQ</b> 64.4 52.0	<b>NIGHT LEQ</b> 59.7 51.6	LDN 67.4 58.7	<b>CNEL</b> 68.0 58.9			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCH	PE ES JCKS KS	NOISE IM PK HR LEQ 67.6 57.8 67.6	PACTS (W DAY LEQ 65.3 55.5 64.4	<b>EVEN LEQ</b> 64.4 52.0 62.4	<b>NIGHT LEQ</b> 59.7 51.6 63.3	LDN 67.4 58.7 69.8	<b>CNEL</b> 68.0 58.9 70.0			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCH	PE ES JCKS KS	NOISE IM PK HR LEQ 67.6 57.8 67.6 70.8	PACTS (W DAY LEQ 65.3 55.5 64.4	<b>EVEN LEQ</b> 64.4 52.0 62.4 66.7	<b>NIGHT LEQ</b> 59.7 51.6 63.3	LDN 67.4 58.7 69.8	<b>CNEL</b> 68.0 58.9 70.0			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCH VEHICULAR N	PE ES JCKS KS	NOISE IM PK HR LEQ 67.6 57.8 67.6 70.8	PACTS (W DAY LEQ 65.3 55.5 64.4 68.1	<b>EVEN LEQ</b> 64.4 52.0 62.4 66.7	<b>NIGHT LEQ</b> 59.7 51.6 63.3	LDN 67.4 58.7 69.8	<b>CNEL</b> 68.0 58.9 70.0			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCH VEHICULAR N	PE ES JCKS KS NOISE	NOISE IM PK HR LEQ 67.6 57.8 67.6 70.8	PACTS (W DAY LEQ 65.3 55.5 64.4 68.1 NOISE CONT	<b>EVEN LEQ</b> 64.4 52.0 62.4 66.7	<b>NIGHT LEQ</b> 59.7 51.6 63.3 65.0	LDN 67.4 58.7 69.8 72.0	<b>CNEL</b> 68.0 58.9 70.0			

PROJECT: G	Gardena Land Use Plan a	and Zoning A	mendments								JOB #:	0462-2020-27
ROADWAY	lormandie Ave.										DATE:	16-May-23
SEGMENT 1	.70th St. to Artesia Blvd	L									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA		SCENARIO:	Cumulative p	plus Project							
					NOISE	INPUT I	ΑΤΑ					
	ROADWA	AY CONDIT	IONS					RECEIVER	R INPUT D	ATA		
ADT =	28,200					RECEIVER D	ISTANCE =		50			
SPEED =	35					DIST C/L TO			0			
PK HR % =	10					RECEIVER H	EIGHT =		5			
NEAR LANE/FAR LANE	DIST = 40					WALL DIST	NCE FROM R	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	TION =		0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE	-90			
PK HR VOL =	2,820							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIC	N		
AUTOMOBILES	10					HTH WALL	= 0	FT				
MED TRUCKS	10		(HARD SITE=	10, SOFT SIT	E=15)	AMBIENT =	0					
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERM)			
	VEHICLE N	VIX DATA						MISC. VE	HICLE INF	0		
		-							HEIGHT	SLE DISTANCI		LICTMENT
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE T				E GRADE ADJ	OSTIVIENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI		2.00	45.9		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	45.8		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	45.9	0.0	1
					NOISE	Ουτρυ	T DATA					
				NOISE IM	PACTS (N	/ITHOUT	OPO OR B	BARRIER S	HIELDING,			
			/DE		DAVISO				CNIFI	l		
				PK HR LEQ			NIGHT LEQ	LDN	CNEL			
		AUTOMOBI	LES	69.0	66.7	65.8	61.1	LDN 68.8	69.4			
		AUTOMOBI MEDIUM TF	LES RUCKS	69.0 59.2	66.7 56.9	65.8 53.4	61.1 53.0	LDN 68.8 60.1	69.4 60.3			
		AUTOMOBI	LES RUCKS	69.0	66.7	65.8	61.1	LDN 68.8	69.4			
		AUTOMOBI MEDIUM TF	LES RUCKS CKS	69.0 59.2	66.7 56.9	65.8 53.4	61.1 53.0	LDN 68.8 60.1	69.4 60.3			
		AUTOMOBI MEDIUM TF HEAVY TRU	LES RUCKS CKS	69.0 59.2 69.0	66.7 56.9 65.8	65.8 53.4 63.8	61.1 53.0 64.7	LDN 68.8 60.1 71.2	69.4 60.3 71.4			
		AUTOMOBI MEDIUM TF HEAVY TRU	LES RUCKS CKS	69.0 59.2 69.0 72.2	66.7 56.9 65.8 69.5	65.8 53.4 63.8 68.1	61.1 53.0 64.7	LDN 68.8 60.1 71.2	69.4 60.3 71.4			
		AUTOMOBI MEDIUM TF HEAVY TRU	LES RUCKS CKS NOISE	69.0 59.2 69.0 72.2	66.7 56.9 65.8 69.5 NOISE CON	65.8 53.4 63.8 68.1	61.1 53.0 64.7 66.5	LDN 68.8 60.1 71.2 73.4	69.4 60.3 71.4			
		AUTOMOBI MEDIUM TF HEAVY TRU	LES RUCKS CKS	69.0 59.2 69.0 72.2	66.7 56.9 65.8 69.5	65.8 53.4 63.8 68.1	61.1 53.0 64.7	LDN 68.8 60.1 71.2	69.4 60.3 71.4			

PROJECT: G	ardena Land Use Plan :	and Zoning	Amendments								JOB #:	0462-2020-27
	il Segundo Blvd.		Amenuments								DATE:	16-May-23
	Vestern Ave. to Norma	ndie Ave.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA		SCENARIO:	Cumulative								
					NOISE		ΑΤΑ					
		V COND										
	ROADWA	AY CONDI	TIONS					RECEIVER	INPUT D	ΑΤΑ		
ADT =	30,800					RECEIVER D	STANCE -					
ADT = SPEED =	40					DIST C/L TO			50 0			
PK HR % =	40					RECEIVER H			5			
NEAR LANE/FAR LANE						WALL DISTA		RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVAT			0			
GRADE =	0					ROADWAY	IEW:	LF ANGLE	-90			
PK HR VOL =	3,080							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIO	ON		
AUTOMOBILES	10					HTH WALL =	٥	FT				
MED TRUCKS	10		(HARD SITE=	=10. SOFT SI	TE=15)	AMBIENT =	0					
HVY TRUCKS	10			-,	- 1	BARRIER =		(0=WALL,1=	BERM)			
	VEHICLE N	MIX DATA						MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	(PE	HEIGHT	SLE DISTANCI	E GRADE ADJ	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			АИТОМОВІ	LES =	2.00	38.1		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR	RUCKS=	4.00	38.0		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	38.1	0.0	1
					NOISE	Ουτρυ	DATA					
										1		
				NOISE IN	IPACTS (W	ΠΗΟΟΓΙ	OPO OR E	DARRIER SI	HELDING			
										_		
		VEHICLE T		PK HR LEC		EVEN LEQ			CNEL	]		
		AUTOMOB	BILES	71.8	69.6	68.7	63.9	71.7	72.2	]		
		AUTOMOB MEDIUM T	BILES	71.8 61.3	69.6 59.0	68.7 55.5	63.9 55.1	71.7 62.2	72.2 62.4			
		AUTOMOB	BILES	71.8	69.6	68.7	63.9	71.7	72.2			
		AUTOMOB MEDIUM T	BILES TRUCKS JCKS	71.8 61.3	69.6 59.0	68.7 55.5	63.9 55.1	71.7 62.2	72.2 62.4			
		AUTOMOB MEDIUM T HEAVY TRU	BILES TRUCKS JCKS	71.8 61.3 70.7	69.6 59.0 67.6	68.7 55.5 65.5	63.9 55.1 66.4	71.7 62.2 72.9	72.2 62.4 73.1			
		AUTOMOB MEDIUM T HEAVY TRU	BILES TRUCKS JCKS	71.8 61.3 70.7	69.6 59.0 67.6 71.9	68.7 55.5 65.5 70.5	63.9 55.1 66.4	71.7 62.2 72.9	72.2 62.4 73.1			
		AUTOMOB MEDIUM T HEAVY TRU	BILES TRUCKS JCKS	71.8 61.3 70.7 74.5	69.6 59.0 67.6	68.7 55.5 65.5 70.5	63.9 55.1 66.4 68.6	71.7 62.2 72.9	72.2 62.4 73.1			
		AUTOMOB MEDIUM T HEAVY TRU	SILES TRUCKS JCKS R NOISE	71.8 61.3 70.7 74.5	69.6 59.0 67.6 71.9 NOISE CON	68.7 55.5 65.5 70.5	63.9 55.1 66.4	71.7 62.2 72.9 75.6	72.2 62.4 73.1			

PROJECT: G	iardena Land Use Plan a	and Zoning.	Amendments								JOB #:	0462-2020-27
	35th St.	Ŭ									DATE:	16-May-23
SEGMENT V	Vestern Ave. to Norma	ndie Ave.									ENGINEER:	C. Pincock
LOCATION: G	iardena, CA		SCENARIO:	Cumulative								
					NOISE		ΑΤΑ					
	ROADWA		TIONS					RECEIVER		ATA		
	ROADWA	IT CONDI	TIONS					RECEIVER		AIA		
ADT =	19,900					RECEIVER D	STANCE =		50			
SPEED =	40					DIST C/L TO			0			
PK HR % =	10					RECEIVER H			5			
NEAR LANE/FAR LANE	DIST = 40					WALL DISTA	NCE FROM F	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVAT	ION =		0			
GRADE =	0					ROADWAY	/IEW:	LF ANGLE	-90			
PK HR VOL =	1,990							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIC	ON		
AUTOMOBILES	10					HTH WALL =	0	FT				
MED TRUCKS	10		(HARD SITE=	10, SOFT SI	ΓE=15)	AMBIENT =	0					
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERM)			
										0		
	VEHICLE N		l					MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	YPE	HEIGHT	SLE DISTANC	E GRADE AD	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI	LES =	2.00	45.9		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR	RUCKS=	4.00	45.8		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	45.9	0.0	)
					NOISE	OUTPU	T DATA					
				NOISE IN	IPACTS (N	/ІТНОИТ Т	OPO OR E	BARRIER SI	HIELDING	)		
					DAVISO				CNIEL	1		
		VEHICLE T		PK HR LEO		EVEN LEQ			CNEL			
		AUTOMOB	ILES	69.1	66.8	66.0	61.2	69.0	69.5			
		AUTOMOB MEDIUM T	ILES	69.1 58.6	66.8 56.2	66.0 52.8	61.2 52.4	69.0 59.5	69.5 59.7			
		AUTOMOB	ILES	69.1	66.8	66.0	61.2	69.0	69.5			
		AUTOMOB MEDIUM T	ILES RUCKS JCKS	69.1 58.6	66.8 56.2	66.0 52.8	61.2 52.4	69.0 59.5	69.5 59.7			
		AUTOMOB MEDIUM T HEAVY TRL	ILES RUCKS JCKS	69.1 58.6 68.0	66.8 56.2 64.9	66.0 52.8 62.8	61.2 52.4 63.7	69.0 59.5 70.2	69.5 59.7 70.4			
		AUTOMOB MEDIUM T HEAVY TRL	ILES RUCKS JCKS	69.1 58.6 68.0	66.8 56.2 64.9 69.2	66.0 52.8 62.8 67.8	61.2 52.4 63.7	69.0 59.5 70.2	69.5 59.7 70.4			
		AUTOMOB MEDIUM T HEAVY TRL	ILES RUCKS JCKS	69.1 58.6 68.0 71.8	66.8 56.2 64.9	66.0 52.8 62.8 67.8	61.2 52.4 63.7	69.0 59.5 70.2	69.5 59.7 70.4			
		AUTOMOB MEDIUM T HEAVY TRL	ILES IRUCKS JCKS R NOISE	69.1 58.6 68.0 71.8	66.8 56.2 64.9 69.2	66.0 52.8 62.8 67.8	61.2 52.4 63.7 65.9	69.0 59.5 70.2 72.9	69.5 59.7 70.4			

PROJECT: G	iardena Land Use Plan a	and Zoning /	Amendments								JOB #:	0462-2020-27
	Narine Ave.	0.									DATE:	16-May-23
SEGMENT C	renshaw Blvd. to Van N	less Ave.									ENGINEER:	C. Pincock
LOCATION: G	iardena, CA		SCENARIO:	Cumulative								
					NOISE		ΑΤΑ					
	DOADWA		TIONS			-		DECENTER		A <b>T</b> A		
	ROADWA	IY CONDI	HONS					RECEIVER	INPUT D	AIA		
107	40.000					250511/52.2						
ADT = SPEED =	19,300 35					RECEIVER D DIST C/L TO			50			
PK HR % =	10					RECEIVER H			0			
NEAR LANE/FAR LANE						WALL DISTA		RECEIVER =	5 50			
ROAD ELEVATION =	0					PAD ELEVAT		lectiven -	0			
GRADE =	0					ROADWAY		LF ANGLE	-90			
PK HR VOL =	1,930							RT ANGLE	90			
								DF ANGLE	180			
									100			
	SITE CON	DITIONS						WALL INF	ORMATIO	)N		
AUTOMOBILES	10					HTH WALL =	0	FT				
MED TRUCKS	10		(HARD SITE=	10, SOFT SI	TE=15)	AMBIENT =	0					
HVY TRUCKS	10		ι -	-,	- 1	BARRIER =		(0=WALL,1=	BERM)			
	VEHICLE N	/IIX DATA						MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAULY			VEHICLE TY	/DF	HEIGHT	SLE DISTANCE	GRADEADI	LISTMENT
AUTOMOBILES	0.708	0.146	0.146	<b>DAILY</b> 0.958			AUTOMOBI		2.00	47.8		O STIME IVI
MEDIUM TRUCKS	0.708	0.140	0.140	0.938			MEDIUM TR		4.00	47.8		
HEAVY TRUCKS	0.577	0.090	0.332	0.011			HEAVY TRU		8.01	47.8	0.0	
					NOICE							
					NOISE	OUTPU	DATA					
				NOISE IN	IPACTS (W	ITHOUT 1	OPO OR E	BARRIER S	HIELDING,			
		VEHICLE T		PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL			
		<b>VEHICLE T</b> AUTOMOB		<b>PK HR LEO</b> 67.2	<b>DAY LEQ</b> 64.9	<b>EVEN LEQ</b> 64.0	NIGHT LEQ	LDN 67.0	<b>CNEL</b> 67.6			
		AUTOMOB MEDIUM TI	ILES RUCKS									
		AUTOMOB	ILES RUCKS	67.2	64.9	64.0	59.3	67.0	67.6			
		AUTOMOB MEDIUM TI	ILES RUCKS JCKS	67.2 57.4	64.9 55.0	64.0 51.6	59.3 51.2	67.0 58.2	67.6 58.5			
		AUTOMOBI MEDIUM TI HEAVY TRU	ILES RUCKS JCKS	67.2 57.4 67.2	64.9 55.0 64.0	64.0 51.6 62.0	59.3 51.2 62.9	67.0 58.2 69.4	67.6 58.5 69.6			
		AUTOMOBI MEDIUM TI HEAVY TRU	ILES RUCKS JCKS	67.2 57.4 67.2	64.9 55.0 64.0 67.7	64.0 51.6 62.0 66.3	59.3 51.2 62.9	67.0 58.2 69.4	67.6 58.5 69.6			
		AUTOMOBI MEDIUM TI HEAVY TRU	ILES RUCKS JCKS R NOISE	67.2 57.4 67.2 70.4	64.9 55.0 64.0 67.7	64.0 51.6 62.0 66.3	59.3 51.2 62.9 64.6	67.0 58.2 69.4 71.6	67.6 58.5 69.6			
		AUTOMOBI MEDIUM TI HEAVY TRU	ILES RUCKS JCKS	67.2 57.4 67.2 70.4	64.9 55.0 64.0 67.7	64.0 51.6 62.0 66.3	59.3 51.2 62.9	67.0 58.2 69.4	67.6 58.5 69.6			

PROJECT:	Gardena Land Use Plan							JOB #:	0462-2020-2			
	Rosecrans Ave.	-							DATE: 16-Ma			
SEGMENT	Van Ness Ave. to Weste	rn Ave.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA		SCENARIO:	Cumulative								
					NOISE	INPUT	DATA					
	ROADWA		TIONS					RECEIVER		ΔΤΔ		
	NOADW/	AT CONDI	nons					RECEIVEN				
ADT =	31,800					RECEIVER	DISTANCE =		50			
SPEED =	40					DIST C/L TO						
PK HR % =	10					RECEIVER			0 5			
NEAR LANE/FAR LANE							ANCE FROM R	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA		LECEIVEN -				
GRADE =	0							LF ANGLE	0			
PK HR VOL =						ROADWAY			-90			
PK HK VUL =	3,180							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIO	DN		
AUTOMOBILES	10					HTH WALL	- 0	FT				
					F 4F)							
MED TRUCKS	10		(HARD SITE:	=10, SOFT SIT	E=15)	AMBIENT =			05014			
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERIVIJ			
	VEHICLE N	VIX DATA				MISC. VEHICLE INFO						
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	/DF	HEIGHT	SLE DISTANCE	E GRADE ADJ	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958					2.00	38.1		
MEDIUM TRUCKS	0.708	0.079	0.217	0.011					38.0			
											0.0	
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY IRU	CKS =	8.01	38.1	0.0	)
					NOISE	OUTPU	T DATA					
				NOISE IM	PACTS (V	/ITHOUT	TOPO OR B	BARRIER S	HIELDING,			
		VEHICLE T	YPE	PK HR LEQ	DAY LEQ	EVEN LEO		LDN	CNEL			
		AUTOMOB	ILES	72.0	69.7	68.8	64.1	71.8	72.4			
		MEDIUM T	RUCKS	61.4	59.1	55.6	55.2	62.3	62.6			
		HEAVY TRUCKS		70.9 67.7		65.7	66.5	73.1	73.3			
							-	1	-			
		VEHICULAF	NOISE	74.7	72.0	70.7	68.7	75.7	76.1			
			NOISE	74.7	72.0	70.7	68.7	75.7	76.1			
			NOISE	I	72.0 NOISE CON		68.7	75.7	76.1			
			NOISE				68.7	75.7 55 dBA	76.1			

PROJECT:	Gardena Land Use Plan a							JOB #:	0462-2020-27			
ROADWAY	Rosecrans Ave.										DATE:	16-May-23
SEGMENT	Western Ave. to Norma	ndie Ave.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA	S	CENARIO:	Cumulative								
					NOISE		DATA					
	ROADW/							RECEIVER		ΔΤΔ		
	ROADWA	AY CONDITIC	JNS					RECEIVER		AIA		
ADT =	41,600					RECEIVER D	ISTANCE -		50			
SPEED =	41,000					DIST C/L TO						
PK HR % =	10					RECEIVER H			0 5			
NEAR LANE/FAR LANE							NCE FROM R	ECEIVER -				
ROAD ELEVATION =	0					PAD ELEVA			50 0			
GRADE =	0					ROADWAY		LF ANGLE				
PK HR VOL =	4,160					NOADWAI		RT ANGLE	-90			
	4,100							DF ANGLE	90 180			
								DI ANGLE	180			
	SITE CON	DITIONS				WALL INFORMATION						
AUTOMOBILES	10					HTH WALL	. 0	FT				
MED TRUCKS	10			.0, SOFT SITI	E-15)	AMBIENT =						
HVY TRUCKS	10			.0, 5011 5111	L=13)	BARRIER =		(0=WALL,1=				
								(- )	,			
	VEHICLE N	AIX DATA				MISC. VEHICLE INFO						
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	'PE	HEIGHT	SLE DISTANCE	GRADE ADJ	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBII		2.00	38.1		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011		MEDIUM TRUCKS= 4.00 3						
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU		8.01	38.1	0.0	1
					NOISE							
						OUTPU						
				NOISE IM	PACTS (N	ITHOUT 1	OPO OR B	ARRIER SI	HIELDING)			
		VEHICLE TYP	E	YK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL			
		VEHICLE TYP		<b>PK HR LEQ</b> 73.2	<b>DAY LEQ</b> 70.9	<b>EVEN LEQ</b> 70.0	NIGHT LEQ 65.3	LDN 73.0	<b>CNEL</b> 73.5			
			5									
		AUTOMOBILE	S CKS	73.2	70.9	70.0	65.3	73.0	73.5			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCK	s cks s	73.2 62.6 72.0	70.9 60.3 68.9	70.0 56.8 66.8	65.3 56.4 67.7	73.0 63.5 74.2	73.5 63.7 74.5			
		AUTOMOBILE	s cks s	73.2 62.6	70.9 60.3	70.0 56.8	65.3 56.4	73.0 63.5	73.5 63.7			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCK	s cks s	73.2 62.6 72.0	70.9 60.3 68.9	70.0 56.8 66.8	65.3 56.4 67.7	73.0 63.5 74.2	73.5 63.7 74.5			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCK VEHICULAR NO	S CKS S DISE	73.2 62.6 72.0 75.9	70.9 60.3 68.9 73.2 NOISE CON	70.0 56.8 66.8 71.9	65.3 56.4 67.7 69.9	73.0 63.5 74.2 76.9	73.5 63.7 74.5			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCK VEHICULAR NO	s cks s	73.2 62.6 72.0 75.9	70.9 60.3 68.9 73.2	70.0 56.8 66.8 71.9	65.3 56.4 67.7	73.0 63.5 74.2	73.5 63.7 74.5			

	Cordona Lond LL DI	and 7	Annon direction								JOB #:	0462-2020-27	
	Gardena Land Use Plan a Nestern Ave.	and Zoning A	Amendments						DATE:	16-May-23			
	135th St. to Rosecrans A	Ve							ENGINEER:	C. Pincock			
	Gardena, CA	Cumulative											
Location.	Burdena, ex												
					NOISE	INPUT [	DATA						
	ROADWA	Y CONDI	TIONS			RECEIVER INPUT DATA							
ADT =	25,100					RECEIVER D	ISTANCE =		50				
SPEED =	40				DIST C/L TO WALL = 0								
PK HR % =	10					RECEIVER H	IEIGHT =						
NEAR LANE/FAR LANE	DIST = 50					WALL DISTA	ANCE FROM I	RECEIVER =	50				
ROAD ELEVATION =	ELEVATION = 0						TION =		0				
GRADE =	RADE = 0					ROADWAY	VIEW:	LF ANGLE	-90				
PK HR VOL =	2,510							RT ANGLE	90				
								DF ANGLE	180				
	SITE CON	DITIONS						WALL INF	ORMATIO	ON			
AUTOMOBILES	10					HTH WALL	- 0	FT					
MED TRUCKS	10		(HARD SITE:		TC-1C)	AMBIENT =							
HVY TRUCKS	10		(HARD SITE-	-10, 30FT 31	12-13)	BARRIER =		, ) (0=WALL,1=					
INT INDERS	10					DANNEN -	0	(0=WALL,1=	BEININ				
	VEHICLE N	/IIX DATA				MISC. VEHICLE INFO							
									UFICUT				
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE T			SLE DISTANC	E GRADE AD.		
AUTOMOBILES	0.708	0.146	0.146	0.958						43.4			
MEDIUM TRUCKS	0.704	0.079				MEDIUM TRUCKS= 4.00 43.3							
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	ICKS =	8.01	43.4	0.0	)	
					NOISE	Ουτρυ	T DATA						
				NOISE IN	ΛΡΔΓΤς (Μ			BARRIER S	HIELDING	)			
										_			
		VEHICLE T			DAY LEQ				CNEL				
		AUTOMOB		70.4	68.1	67.3	62.5	70.2	70.8				
		MEDIUM TRUCKS		59.8	57.5	54.0	53.6	60.7	61.0				
			CKS	69.3	66.1	64.1	65.0	71.5	71.7				
		HEAVY TRU											
		HEAVY TRU VEHICULAR		73.1	70.5	69.1	67.1	74.1	74.5	-			
				73.1	70.5	69.1	67.1	74.1	74.5				
				73.1		1	67.1	74.1	74.5	]			
			NOISE		NOISE CON	TOUR (FT)	1		74.5	1			
						1	67.1 60 dBA 1401	74.1 55 dBA 4430	74.5	]			

PROJECT:	Gardena Land Use Plan							JOB #:	0462-2020-27				
	Marine Ave.								DATE: 16-May-23				
SEGMENT	Western Ave. to Norma	ndie Ave.									ENGINEER:	C. Pincock	
LOCATION:	Gardena, CA		SCENARIO:	Cumulative									
					NOISE								
					NOISE								
	ROADWA	AY CONDI	TIONS					RECEIVER	R INPUT D	ATA			
ADT =	20,100					RECEIVER D							
SPEED =	30					DIST C/L TO							
PK HR % =	10					RECEIVER H			5				
NEAR LANE/FAR LANE	DIST = 25					WALL DISTANCE FROM RECEIVER = 50							
ROAD ELEVATION =							FION =		0				
GRADE =	)E = 0					ROADWAY	VIEW:	LF ANGLE	-90				
PK HR VOL =	2,010							RT ANGLE	90				
								DF ANGLE	180				
	SITE CON	DITIONS						WALL INF	ORMATIC	<b>N</b>			
								<b>FT</b>					
AUTOMOBILES	10		/···			HTH WALL		FT					
MED TRUCKS	10		(HARD SITE=	=10, SOFT SIT	E=15)	AMBIENT =							
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERINI)				
	VEHICLE N	MIX DATA				MISC. VEHICLE INFO							
	DAY	51/5	NICUT	DAULY				(DC	HEIGHT	SLE DISTANC		USTMENT	
	<b>DAY</b> 0.708	EVE 0.146	NIGHT	DAILY 0.958								CONTRACT OF	
			0.146			AUTOMOBILES = 2.00 48.5							
MEDIUM TRUCKS	0.704	0.079	0.217 0.011			MEDIUM TRUCKS= 4.00 48.4					0.0		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRUC	CKS =	8.01	48.5	0.0		
					NOISE	Ουτρυ	T DATA						
				NOISE IM	PACTS (N	VITHOUT	OPO OR B	BARRIER S	HIELDING,				
				NOISE IM	IPACTS (N	VITHOUT 1	TOPO OR B	BARRIER S	HIELDING)				
		VEHICLE T						-	HIELDING) CNEL				
			YPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL				
		AUTOMOB	<b>YPE</b> ILES	<b>PK HR LEQ</b> 65.3	<b>DAY LEQ</b> 63.1	<b>EVEN LEQ</b> 62.2	NIGHT LEQ	LDN 65.2	<b>CNEL</b> 65.7				
		AUTOMOB MEDIUM TI	<b>YPE</b> ILES RUCKS	<b>PK HR LEQ</b> 65.3 56.4	<b>DAY LEQ</b> 63.1 54.1	<b>EVEN LEQ</b> 62.2 50.6	<b>NIGHT LEQ</b> 57.4 50.2	LDN 65.2 57.3	<b>CNEL</b> 65.7 57.6				
		AUTOMOB	<b>YPE</b> ILES RUCKS	<b>PK HR LEQ</b> 65.3	<b>DAY LEQ</b> 63.1	<b>EVEN LEQ</b> 62.2	NIGHT LEQ	LDN 65.2	<b>CNEL</b> 65.7				
		AUTOMOB MEDIUM TI	YPE ILES RUCKS ICKS	<b>PK HR LEQ</b> 65.3 56.4	<b>DAY LEQ</b> 63.1 54.1	<b>EVEN LEQ</b> 62.2 50.6	<b>NIGHT LEQ</b> 57.4 50.2	LDN 65.2 57.3	<b>CNEL</b> 65.7 57.6				
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS ICKS	<b>PK HR LEQ</b> 65.3 56.4 66.7	<b>DAY LEQ</b> 63.1 54.1 63.5	<b>EVEN LEQ</b> 62.2 50.6 61.5	<b>NIGHT LEQ</b> 57.4 50.2 62.4	<b>LDN</b> 65.2 57.3 68.9	<b>CNEL</b> 65.7 57.6 69.1				
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS ICKS	<b>PK HR LEQ</b> 65.3 56.4 66.7 69.3	<b>DAY LEQ</b> 63.1 54.1 63.5	<b>EVEN LEQ</b> 62.2 50.6 61.5 65.0	<b>NIGHT LEQ</b> 57.4 50.2 62.4	<b>LDN</b> 65.2 57.3 68.9	<b>CNEL</b> 65.7 57.6 69.1				
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS ICKS	PK HR LEQ 65.3 56.4 66.7 69.3	<b>DAY LEQ</b> 63.1 54.1 63.5 66.6	<b>EVEN LEQ</b> 62.2 50.6 61.5 65.0	<b>NIGHT LEQ</b> 57.4 50.2 62.4	<b>LDN</b> 65.2 57.3 68.9	<b>CNEL</b> 65.7 57.6 69.1				
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS ICKS R NOISE	PK HR LEQ 65.3 56.4 66.7 69.3	DAY LEQ 63.1 54.1 63.5 66.6 NOISE CON	EVEN LEQ 62.2 50.6 61.5 65.0	NIGHT LEQ 57.4 50.2 62.4 63.8	LDN 65.2 57.3 68.9 70.6	<b>CNEL</b> 65.7 57.6 69.1				

PROJECT: G	Gardena Land Use Plan	and Zoning	Amendments								JOB #:	0462-2020-27
	Redondo Beach Blvd.		Amenuments								DATE:	16-May-23
SEGMENT V	Vestern Ave. to Norma	ndie Ave.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA		SCENARIO:	Cumulative								
					NOISE		ΑΤΑ					
	ROADWA	AY CONDI	TIONS					RECEIVER	INPUT D	ΑΤΑ		
ADT = SPEED =	30,300 35					RECEIVER D			50			
PK HR % =	35 10					DIST C/L TO RECEIVER H			0			
NEAR LANE/FAR LANE						WALL DISTA		ECEIVER -	5 50			
ROAD ELEVATION =	0					PAD ELEVAT		ALCEIVEN -	0			
GRADE =	0					ROADWAY		LF ANGLE	-90			
PK HR VOL =	3,030							RT ANGLE	-90 90			
	-,							DF ANGLE	180			
								DI MILOLE	100			
	SITE CON	DITIONS						WALL INF	ORMATIO	DN		
AUTOMOBILES	10					HTH WALL =	0	FT				
MED TRUCKS	10		(HARD SITE=	=10. SOFT SIT	(E=15)	AMBIENT =	0					
HVY TRUCKS	10			.,	-,	BARRIER =		(0=WALL,1=	BERM)			
	VEHICLE							MISC. VE		0		
	VENICLE							WISC. VI		0		
									HEIGHT			LICTNAENT
	DAY	EVE	NIGHT	DAILY			VEHICLE TY			SLE DISTANC	L GRADE AD	CO HVIENI I
	0.708	0.146	0.146	0.958					2.00	43.4 43.3		
MEDIUM TRUCKS HEAVY TRUCKS	0.704 0.577	0.079 0.090	0.217 0.332	0.011 0.031			MEDIUM TR		4.00 8.01	43.5	0.0	
HEAVY TRUCKS	0.577	0.090	0.552	0.031			HEAVY IKU	CK5 =	8.01	45.4	0.0	
					NOISE	OUTPU	DATA					
				NOISE IN	IPACTS (W	/ІТНОИТ Т	OPO OR B	BARRIER S	HIELDING,	1		
		VEHICLE T		PK HR LEQ	DAY LEQ	EVEN LEQ			CNEL	]		
		AUTOMOB	<b>TYPE</b> BILES	69.5	67.2	<b>EVEN LEQ</b> 66.4		LDN 69.4	69.9			
		AUTOMOB MEDIUM T	T <b>YPE</b> DILES TRUCKS	69.5 59.7	67.2 57.4	66.4 53.9	NIGHT LEQ 61.6 53.5	LDN 69.4 60.6	69.9 60.9			
		AUTOMOB	T <b>YPE</b> DILES TRUCKS	69.5	67.2	66.4	NIGHT LEQ 61.6	LDN 69.4	69.9			
		AUTOMOB MEDIUM T	TYPE NILES TRUCKS JCKS	69.5 59.7	67.2 57.4	66.4 53.9	NIGHT LEQ 61.6 53.5	LDN 69.4 60.6	69.9 60.9			
		AUTOMOB MEDIUM T HEAVY TRU	TYPE NILES TRUCKS JCKS	69.5 59.7 69.6	67.2 57.4 66.4	66.4 53.9 64.3	NIGHT LEQ 61.6 53.5 65.2	<b>LDN</b> 69.4 60.6 71.8	69.9 60.9 72.0			
		AUTOMOB MEDIUM T HEAVY TRU	TYPE NILES TRUCKS JCKS	69.5 59.7 69.6	67.2 57.4 66.4 70.1	66.4 53.9 64.3 68.7	NIGHT LEQ 61.6 53.5 65.2	<b>LDN</b> 69.4 60.6 71.8	69.9 60.9 72.0			
		AUTOMOB MEDIUM T HEAVY TRU	TYPE NILES TRUCKS JCKS	69.5 59.7 69.6 72.8	67.2 57.4 66.4	66.4 53.9 64.3 68.7	NIGHT LEQ 61.6 53.5 65.2	<b>LDN</b> 69.4 60.6 71.8	69.9 60.9 72.0			
		AUTOMOB MEDIUM T HEAVY TRU	TYPE SILES TRUCKS JCKS R NOISE	69.5 59.7 69.6 72.8	67.2 57.4 66.4 70.1	66.4 53.9 64.3 68.7	NIGHT LEQ 61.6 53.5 65.2 67.0	LDN 69.4 60.6 71.8 74.0	69.9 60.9 72.0			

PROJECT:	Sardena Land Lico Dise	and Zoning	Amendmonto								JOB #:	0462-2020-2
	Gardena Land Use Plan a Crenshaw Blvd.	anu zoning i	Amenaments								DATE:	16-May-23
	El Segundo Blvd. to 1351	th St.									ENGINEER:	C. Pincock
	Gardena, CA		SCENARIO:	Cumulative								
					NOISE	INPUT I	DATA					
	ROADWA	AY CONDI	TIONS					RECEIVER	R INPUT D	АТА		
ADT =	32,400					RECEIVER D	ISTANCE =		50			
SPEED =	35					DIST C/L TO	WALL =		0			
PK HR % =	10					RECEIVER H	EIGHT =		5			
NEAR LANE/FAR LANE	DIST = 45					WALL DIST	ANCE FROM R	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	TION =		0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE	-90			
PK HR VOL =	3,240							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL IN	ORMATIC	ON		
AUTOMOBILES	10					HTH WALL	= 0	FT				
MED TRUCKS	10			=10, SOFT SIT		AMBIENT =						
HVY TRUCKS	10		(HARD SITE-	-10, 30FT 3H	L-13)	BARRIER =		(0=WALL,1=				
									,			
	VEHICLE N	AIX DATA	1					MISC. VE	HICLE INFO	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	/DE	HEIGHT	SLE DISTANC	F GRADF ADI	USTMENT
	0.708	0.146	0.146	0.958			AUTOMOBII		2.00	44.8		
MEDIUM TRUCKS	0.708	0.140	0.140	0.938			MEDIUM TR		4.00	44.8		
HEAVY TRUCKS	0.577	0.079	0.217	0.011			HEAVY TRUC		4.00 8.01	44.7	0.0	
HEAVE TRUCKS	0.577	0.090	0.332	0.031			HEAVITIKO	CK3 -	8.01	44.0	0.0	
					NOISE	ουτρυ	T DATA					
				NOISE IM	IPACTS (V	/ITHOUT	TOPO OR B	ARRIER S	HIELDING	)		
									-			
						1	1			1		
				PK HR LEQ	DAY LEQ		NIGHT LEQ		CNEL			
		VEHICLE T		cc -					70.1	1		
		AUTOMOB	ILES	69.7	67.4	66.6	61.8	69.5				
		AUTOMOB MEDIUM T	ILES	59.9	57.6	54.1	53.7	60.8	61.0			
		AUTOMOB	ILES						61.0 72.1			
		AUTOMOB MEDIUM T	illes RUCKS JCKS	59.9	57.6	54.1	53.7	60.8				
		AUTOMOB MEDIUM T HEAVY TRU	illes RUCKS JCKS	59.9 69.7	57.6 66.5	54.1 64.5	53.7 65.4	60.8 71.9	72.1			
		AUTOMOB MEDIUM T HEAVY TRU	illes RUCKS JCKS	59.9 69.7	57.6 66.5 70.2	54.1 64.5 68.8	53.7 65.4	60.8 71.9	72.1			
		AUTOMOB MEDIUM T HEAVY TRU	ILES IRUCKS JCKS R NOISE	59.9 69.7 72.9	57.6 66.5 70.2 NOISE CON	54.1 64.5 68.8	53.7 65.4 67.2	60.8 71.9 74.1	72.1			
		AUTOMOB MEDIUM T HEAVY TRU	illes RUCKS JCKS	59.9 69.7 72.9	57.6 66.5 70.2	54.1 64.5 68.8	53.7 65.4	60.8 71.9	72.1			

PROJECT: G	Gardena Land Use Plan a	and Zoning (	Mendmonto								JOB #:	0462-2020-27
	Gardena Land Use Plan a Crenshaw Blvd.	anu zoning A	menaments								DATE:	16-May-23
	L35th St. to Rosecrans A	we.									ENGINEER:	C. Pincock
	Gardena, CA		SCENARIO:	Cumulative								
	····, ···											
					NOISE	INPUT [	DATA					
	ROADWA	Y CONDI	TIONS					RECEIVER	R INPUT D	ATA		
ADT =	29,200					RECEIVER D	ISTANCE =		50			
SPEED =	40					DIST C/L TC	WALL =		0			
PK HR % =	10					RECEIVER H	EIGHT =		5			
NEAR LANE/FAR LANE	DIST = 45					WALL DIST	NCE FROM R	RECEIVER =	50			
, ROAD ELEVATION =	0					PAD ELEVA			0			
GRADE =	0					ROADWAY		LF ANGLE				
PK HR VOL =	2,920					NOADWAT		RT ANGLE	-90			
	2,520							DF ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIC	JN		
AUTOMOBILES	10					HTH WALL	- 0	FT				
MED TRUCKS	10		(HARD SITE=	=10, SOFT SIT	E=15)	AMBIENT =	0					
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERM)			
	VEHICLE N	ΛΙΧ DATA						MISC. VE	HICLE INFO	0		
										-		
									UFICUT			LICTRACNIT
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY				CE GRADE AD	USTIVIENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBII		2.00	44.8		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	44.7		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRUG	CKS =	8.01	44.8	0.0	)
					NOISE	Ουτρυ	T DATA					
				NOISE IM	IPACTS (N	/ITHOUT 1	OPO OR B	SARRIER S	HIELDING,	)		
				NOISE IM	IPACTS (N	/ITHOUT 1	OPO OR B	SARRIER S	HIELDING)			
		VEHICLE T	YPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL			
		AUTOMOBI	<b>YPE</b> ILES	<b>PK HR LEQ</b> 70.9	<b>DAY LEQ</b> 68.6	<b>EVEN LEQ</b> 67.8	NIGHT LEQ 63.0	LDN 70.8	<b>CNEL</b> 71.3			
		AUTOMOBI MEDIUM TI	<b>YPE</b> ILES RUCKS	<b>PK HR LEQ</b> 70.9 60.3	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN 70.8 61.2	CNEL			
		AUTOMOBI	<b>YPE</b> ILES RUCKS	<b>PK HR LEQ</b> 70.9	<b>DAY LEQ</b> 68.6	<b>EVEN LEQ</b> 67.8	NIGHT LEQ 63.0	LDN 70.8	<b>CNEL</b> 71.3			
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS ICKS	<b>PK HR LEQ</b> 70.9 60.3	<b>DAY LEQ</b> 68.6 58.0	<b>EVEN LEQ</b> 67.8 54.5	<b>NIGHT LEQ</b> 63.0 54.2	LDN 70.8 61.2	<b>CNEL</b> 71.3 61.5			
		AUTOMOBI MEDIUM TI	YPE ILES RUCKS ICKS	PK HR LEQ 70.9 60.3 69.8	<b>DAY LEQ</b> 68.6 58.0 66.6	<b>EVEN LEQ</b> 67.8 54.5 64.6	NIGHT LEQ 63.0 54.2 65.5	LDN 70.8 61.2 72.0	<b>CNEL</b> 71.3 61.5 72.2			
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS ICKS	PK HR LEQ 70.9 60.3 69.8	<b>DAY LEQ</b> 68.6 58.0 66.6	<b>EVEN LEQ</b> 67.8 54.5 64.6	NIGHT LEQ 63.0 54.2 65.5	LDN 70.8 61.2 72.0	<b>CNEL</b> 71.3 61.5 72.2			
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS ICKS INOISE	PK HR LEQ 70.9 60.3 69.8 73.6	<b>DAY LEQ</b> 68.6 58.0 66.6	<b>EVEN LEQ</b> 67.8 54.5 64.6 69.6	NIGHT LEQ 63.0 54.2 65.5	LDN 70.8 61.2 72.0	<b>CNEL</b> 71.3 61.5 72.2			
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS ICKS NOISE	PK HR LEQ 70.9 60.3 69.8 73.6	DAY LEQ 68.6 58.0 66.6 71.0 NOISE CON 70 dBA	EVEN LEQ 67.8 54.5 64.6 69.6 TOUR (FT) 65 dBA	NIGHT LEQ 63.0 54.2 65.5 67.6 60 dBA	LDN 70.8 61.2 72.0 74.6	<b>CNEL</b> 71.3 61.5 72.2			
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS ICKS INOISE	PK HR LEQ 70.9 60.3 69.8 73.6	DAY LEQ 68.6 58.0 66.6 71.0 NOISE CON	EVEN LEQ 67.8 54.5 64.6 69.6	NIGHT LEQ 63.0 54.2 65.5 67.6	LDN 70.8 61.2 72.0 74.6	<b>CNEL</b> 71.3 61.5 72.2			

PROJECT:	Gardena Land Use Plan a	and Zoning A	mendments								JOB #:	0462-2020-27
ROADWAY	Crenshaw Blvd.										DATE:	16-May-23
SEGMENT	Rosecrans Ave. to Marin	e Ave.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA		SCENARIO:	Cumulative								
					NOISE		ATA					
	ROADWA		TIONS					RECEIVER		ΔΤΔ		
	NOADWA	IT CONDI	IIONS					NECEIVEN				
ADT =	27,500					RECEIVER D	ISTANCE =		50			
SPEED =	40					DIST C/L TO			0			
PK HR % =	10					RECEIVER H			5			
NEAR LANE/FAR LANE							NCE FROM F	RECEIVER =	50			
, ROAD ELEVATION =	0					PAD ELEVAT			0			
GRADE =	0					ROADWAY		LF ANGLE	-90			
PK HR VOL =	2,750							RT ANGLE	90			
	2,750							DF ANGLE	90 180			
								DI ANGLE	100			
	SITE CON	DITIONS						WALL INF	ORMATIC	DN		
AUTOMOBILES	10					HTH WALL =	0	FT				
MED TRUCKS	10		(HARD SITE=	=10. SOFT SI	TE=15)	AMBIENT =	0					
HVY TRUCKS	10			.,	- 1	BARRIER =		(0=WALL,1=	BERM)			
	VEHICLE N	ЛIX DATA						MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE T	VPF	HEIGHT	SLE DISTANC	E GRADE ADJ	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI		2.00	44.8		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	44.7		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU		8.01	44.8	0.0	)
					NOISE	Ουτρυ						
					NOISL	00170	DATA					
			1									
				NOISE IN	IPACTS (W	/ІТНОИТ 1	OPO OR E	BARRIER SI	HIELDING,			
				NOISE IN	IPACTS (W	/ITHOUT 1	OPO OR E	BARRIER SI	HIELDING)			
		VEHICLE T	YPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL			
		AUTOMOBI	YPE LES	<b>PK HR LEQ</b> 70.7	<b>DAY LEQ</b> 68.4	<b>EVEN LEQ</b> 67.5	NIGHT LEQ 62.8	LDN 70.5	<b>CNEL</b> 71.1			
		AUTOMOBI MEDIUM TF	YPE LES RUCKS	<b>PK HR LEQ</b> 70.7 60.1	<b>DAY LEQ</b> 68.4 57.8	<b>EVEN LEQ</b> 67.5 54.3	NIGHT LEQ 62.8 53.9	LDN 70.5 61.0	<b>CNEL</b> 71.1 61.2			
		AUTOMOBI	YPE LES RUCKS	<b>PK HR LEQ</b> 70.7	<b>DAY LEQ</b> 68.4	<b>EVEN LEQ</b> 67.5	NIGHT LEQ 62.8	LDN 70.5	<b>CNEL</b> 71.1			
		AUTOMOBI MEDIUM TF	YPE LES RUCKS CKS	<b>PK HR LEQ</b> 70.7 60.1	<b>DAY LEQ</b> 68.4 57.8	<b>EVEN LEQ</b> 67.5 54.3	NIGHT LEQ 62.8 53.9	LDN 70.5 61.0	<b>CNEL</b> 71.1 61.2			
		AUTOMOBI MEDIUM TF HEAVY TRU	YPE LES RUCKS CKS	<b>PK HR LEQ</b> 70.7 60.1 69.5	<b>DAY LEQ</b> 68.4 57.8 66.4	<b>EVEN LEQ</b> 67.5 54.3 64.3	NIGHT LEQ 62.8 53.9 65.2	LDN 70.5 61.0 71.8	<b>CNEL</b> 71.1 61.2 72.0			
		AUTOMOBI MEDIUM TF HEAVY TRU	YPE LES RUCKS CKS	<b>PK HR LEQ</b> 70.7 60.1 69.5	<b>DAY LEQ</b> 68.4 57.8 66.4 70.7	<b>EVEN LEQ</b> 67.5 54.3 64.3 69.4	NIGHT LEQ 62.8 53.9 65.2	LDN 70.5 61.0 71.8	<b>CNEL</b> 71.1 61.2 72.0			
		AUTOMOBI MEDIUM TF HEAVY TRU	YPE LES RUCKS CKS NOISE	<b>PK HR LEQ</b> 70.7 60.1 69.5 73.4	DAY LEQ 68.4 57.8 66.4 70.7	EVEN LEQ 67.5 54.3 64.3 69.4	NIGHT LEQ 62.8 53.9 65.2 67.4	LDN 70.5 61.0 71.8 74.4	<b>CNEL</b> 71.1 61.2 72.0			
		AUTOMOBI MEDIUM TF HEAVY TRU	YPE LES RUCKS CKS	<b>PK HR LEQ</b> 70.7 60.1 69.5 73.4	<b>DAY LEQ</b> 68.4 57.8 66.4 70.7	<b>EVEN LEQ</b> 67.5 54.3 64.3 69.4	NIGHT LEQ 62.8 53.9 65.2	LDN 70.5 61.0 71.8	<b>CNEL</b> 71.1 61.2 72.0			

PROJECT: G	ardena Land Use Plan	and Zoning	Amendments								JOB #:	0462-2020-27
	Gardena Land Ose Plan Grenshaw Blvd.		ninenuments								DATE:	16-May-23
	Aarine Ave. to Manhat	tan Beach Bl	vd.								ENGINEER:	C. Pincock
LOCATION:	ardena, CA		SCENARIO:	Cumulative								
					NOISE		ΑΤΑ					
	ROADW	AY CONDI	TIONS					RECEIVER	INPUT D	ΑΤΑ		
ADT =	24,700					RECEIVER D			50			
SPEED = PK HR % =	40 10					DIST C/L TO RECEIVER H			0			
NEAR LANE/FAR LANE						WALL DISTA		PECEIVER -	5 50			
ROAD ELEVATION =	0					PAD ELEVAT		ALCEIVER -	0			
GRADE =	0					ROADWAY		LF ANGLE	-90			
PK HR VOL =	2,470							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIC	ON		
AUTOMOBILES	10					HTH WALL =	0	FT				
MED TRUCKS	10		(HARD SITE=	10, SOFT SI	TE=15)	AMBIENT =	0					
HVY TRUCKS	10			,	,	BARRIER =		(0=WALL,1=	BERM)			
										~		
	VEHICLE I		1					MISC. VE		0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	YPE	HEIGHT	SLE DISTANC	E GRADE AD	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI	LES =	2.00	44.8		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR	RUCKS=	4.00	44.7		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	44.8	0.0	)
					NOISE	Ουτρυ	T DATA					
				NOISE IN	IPACTS (N	/ІТНОИТ Т	OPO OR E	BARRIER SI	HIELDING	)		
										1		
		VEHICLE	VDE		DAVISO		NIGHT		CNET			
				PK HR LEO		EVEN LEQ			<b>CNEL</b>	1		
		AUTOMOB	ILES	70.2	67.9	67.1	62.3	70.0	70.6			
		AUTOMOB MEDIUM T	ILES	70.2 59.6	67.9 57.3	67.1 53.8	62.3 53.4	70.0 60.5	70.6 60.8			
		AUTOMOB	ILES	70.2	67.9	67.1	62.3	70.0	70.6			
		AUTOMOB MEDIUM T	ILES RUCKS JCKS	70.2 59.6	67.9 57.3	67.1 53.8	62.3 53.4	70.0 60.5	70.6 60.8			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS	70.2 59.6 69.1	67.9 57.3 65.9	67.1 53.8 63.9	62.3 53.4 64.8	70.0 60.5 71.3	70.6 60.8 71.5			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS	70.2 59.6 69.1	67.9 57.3 65.9 70.3	67.1 53.8 63.9 68.9	62.3 53.4 64.8	70.0 60.5 71.3	70.6 60.8 71.5			
		AUTOMOB MEDIUM T HEAVY TRU	ILES IRUCKS JCKS R NOISE	70.2 59.6 69.1 72.9	67.9 57.3 65.9 70.3 NOISE CON	67.1 53.8 63.9 68.9	62.3 53.4 64.8 66.9	70.0 60.5 71.3 73.9	70.6 60.8 71.5			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS	70.2 59.6 69.1 72.9	67.9 57.3 65.9 70.3	67.1 53.8 63.9 68.9	62.3 53.4 64.8	70.0 60.5 71.3	70.6 60.8 71.5			

PROJECT:	Gardena Land Use Plan	and Zoning /	mendments								JOB #:	0462-2020-27
	Western Ave.	3.									DATE:	16-May-23
	I Segundo Blvd. to 135	th St.									ENGINEER:	C. Pincock
	Gardena, CA		SCENARIO:	Cumulative								
					NOISE		ΔΤΔ					
					NOISE							
	ROADWA	AY CONDI	TIONS					RECEIVER	INPUT D	ATA		
ADT =	21,600					RECEIVER D			50			
SPEED =	40					DIST C/L TC	WALL =		0			
PK HR % =	10					RECEIVER H	EIGHT =		5			
NEAR LANE/FAR LANE	DIST = 50					WALL DIST	NCE FROM R	ECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	ION =		0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE	-90			
PK HR VOL =	2,160							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIC	DN		
AUTOMOBILES	10					HTH WALL		FT				
MED TRUCKS	10		(HARD SITE=	10, SOFT SIT	E=15)	AMBIENT =						
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERM)			
	VEHICLE N	ΛΙΧ ΠΑΤΑ						MISC. VE	HICLE INF	0		
									UFICUT			
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY		HEIGHT	SLE DISTANCE	E GRADE ADJ	USIMENI
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBIL		2.00	43.4		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	43.3		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRUG	CKS =	8.01	43.4	0.0	1
					NOISE	Ουτρυ	T DATA					
				NOISE IM	PACTS (N	/ITHOUT 1	OPO OR B	ARRIER S	HIELDING)			
		VEHICLE T	YPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL	1		
		VEHICLE T		<b>PK HR LEQ</b> 69.7	<b>DAY LEQ</b> 67.4	<b>EVEN LEQ</b> 66.6	NIGHT LEQ 61.8	LDN 69.6	<b>CNEL</b> 70.1			
		AUTOMOBI	LES	69.7	67.4	66.6	61.8	69.6	70.1			
			LES RUCKS	69.7 59.2	67.4 56.9	66.6 53.4	61.8 53.0	69.6 60.1	70.1 60.3			
		AUTOMOBI MEDIUM TI	LES RUCKS	69.7	67.4	66.6	61.8	69.6	70.1			
		AUTOMOBI MEDIUM TI	LES RUCKS CKS	69.7 59.2	67.4 56.9	66.6 53.4	61.8 53.0	69.6 60.1	70.1 60.3			
		AUTOMOBI MEDIUM TI HEAVY TRU	LES RUCKS CKS	69.7 59.2 68.6	67.4 56.9 65.5	66.6 53.4 63.4	61.8 53.0 64.3	69.6 60.1 70.8	70.1 60.3 71.0			
		AUTOMOBI MEDIUM TI HEAVY TRU	LES RUCKS CKS	69.7 59.2 68.6 72.4	67.4 56.9 65.5	66.6 53.4 63.4 68.4	61.8 53.0 64.3	69.6 60.1 70.8	70.1 60.3 71.0			
		AUTOMOBI MEDIUM TI HEAVY TRU	LES RUCKS CKS	69.7 59.2 68.6 72.4	67.4 56.9 65.5 69.8	66.6 53.4 63.4 68.4	61.8 53.0 64.3	69.6 60.1 70.8	70.1 60.3 71.0			
		AUTOMOBI MEDIUM TI HEAVY TRU	LES RUCKS CKS NOISE	69.7 59.2 68.6 72.4	67.4 56.9 65.5 69.8 NOISE CON	66.6 53.4 63.4 68.4	61.8 53.0 64.3 66.5	69.6 60.1 70.8 73.5	70.1 60.3 71.0			

PROJECT:	Gardena Land Use Plan	and Zoning	Amendments								JOB #:	0462-2020-27
	/ermont Ave.		Amenuments								DATE:	16-May-23
	L35th St. to Rosecrans A	ve.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA		SCENARIO:	Cumulative	2							
					NOISE		ΔΤΔ					
					NOISE							
	ROADWA	AY CONDI	TIONS					RECEIVER	R INPUT D	ΑΤΑ		
ADT =	22,500					RECEIVER D	ISTANCE =		50			
SPEED =	40					DIST C/L TO			0			
PK HR % =	10					RECEIVER H			5			
NEAR LANE/FAR LANE							NCE FROM I	RECEIVER =	50			
ROAD ELEVATION = GRADE =	0					PAD ELEVAT		LF ANGLE	0			
PK HR VOL =	2,250					KOADWAT	VIEVV.	RT ANGLE	-90			
	2,230							DF ANGLE	90 180			
								DI ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIO	ON		
AUTOMOBILES	10					HTH WALL :		FT				
MED TRUCKS	10		(HARD SITE:		TE=15)	AMBIENT =						
HVY TRUCKS	10			-10, 5011 51	12-13)	BARRIER =		(0=WALL,1=	BERM)			
	VEHICLE N	AIX DATA	l					MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE T	VDF	HEIGHT	SLE DISTANC	E GRADE AD	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			АЛТОМОВІ		2.00	40.1		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	40.0		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU		8.01	40.1	0.0	)
					NOISE	<u>OUTPU</u>	T DATA					
				NOISE IN	NPACTS (V	/ITHOUT 1	OPO OR E	BARRIER S	HIELDING	)		
			YPE	PK HR LEC	DAY LEQ	EVEN LEO	NIGHT LEC		CNEL	1		
		VEHICLE 1					62.4	70.1	70.7			
		VEHICLE T AUTOMOB		70.3	68.0	67.1			1	1		
			ILES	70.3 59.7	68.0 57.4	53.9	53.5	60.6	60.8			
		AUTOMOB	ILES					60.6 71.4	60.8 71.6			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS	59.7 69.1	57.4 66.0	53.9 63.9	53.5 64.8	71.4	71.6			
		AUTOMOB MEDIUM T	ILES RUCKS JCKS	59.7	57.4	53.9	53.5					
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS	59.7 69.1	57.4 66.0	53.9 63.9	53.5 64.8	71.4	71.6			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS	59.7 69.1	57.4 66.0	53.9 63.9 69.0	53.5 64.8	71.4	71.6			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS	59.7 69.1 73.0	57.4 66.0 70.3	53.9 63.9 69.0	53.5 64.8	71.4	71.6			

PROJECT:	Gardena Land Use Plan	and Zoning	Amendments								JOB #:	0462-2020-27
	Vestern Ave.	and zoning i	inclution								DATE:	16-May-23
SEGMENT R	osecrans Ave. to Marir	ne Ave.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA		SCENARIO:	Cumulative								
					NOISE		ΑΤΑ					
	DOADW					-				a <b>T</b> a		
	ROADWA	AY CONDI	HONS					RECEIVER		AIA		
ADT =	36.000					RECEIVER D	STANCE -					
SPEED =	26,900 40					DIST C/L TO			50 0			
PK HR % =	40					RECEIVER H			5			
NEAR LANE/FAR LANE						WALL DISTA		RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVAT			0			
GRADE =	0					ROADWAY		LF ANGLE	-90			
PK HR VOL =	2,690							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIC	DN		
AUTOMOBILES	10					HTH WALL =	0	FT				
MED TRUCKS	10		(HARD SITE=	10, SOFT SI	TE=15)	AMBIENT =	0					
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERM)			
	VEHICLE N	MIX DATA						MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE T	/DF	HEIGHT	SLE DISTANC	E GRADE AD	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI		2.00	43.4		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	43.3		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU		8.01	43.4	0.0	)
					NOISE							
						OUTPU						
				NOISE IN	1PACTS (W	ITHOUT T	OPO OR E	BARRIER S	HIELDING	)		
		VEHICLE T	YPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL	]		
		AUTOMOB	ILES	70.7	<b>DAY LEQ</b> 68.4	<b>EVEN LEQ</b> 67.6	62.8	70.5	71.1			
		AUTOMOB MEDIUM T	ILES	70.7 60.1	68.4 57.8		62.8 53.9	70.5 61.0	71.1 61.3			
		AUTOMOB	ILES	70.7	68.4	67.6	62.8	70.5	71.1			
		AUTOMOB MEDIUM T	illes RUCKS JCKS	70.7 60.1	68.4 57.8	67.6 54.3	62.8 53.9	70.5 61.0	71.1 61.3			
		AUTOMOB MEDIUM T HEAVY TRU	illes RUCKS JCKS	70.7 60.1 69.6	68.4 57.8 66.4	67.6 54.3 64.4	62.8 53.9 65.3	70.5 61.0 71.8	71.1 61.3 72.0			
		AUTOMOB MEDIUM T HEAVY TRU	illes RUCKS JCKS	70.7 60.1 69.6	68.4 57.8 66.4 70.8	67.6 54.3 64.4 69.4	62.8 53.9 65.3	70.5 61.0 71.8	71.1 61.3 72.0			
		AUTOMOB MEDIUM T HEAVY TRU	ILES IRUCKS JCKS R NOISE	70.7 60.1 69.6 73.4	68.4 57.8 66.4 70.8 NOISE CON	67.6 54.3 64.4 69.4	62.8 53.9 65.3 67.4	70.5 61.0 71.8 74.4	71.1 61.3 72.0			
		AUTOMOB MEDIUM T HEAVY TRU	illes RUCKS JCKS	70.7 60.1 69.6 73.4	68.4 57.8 66.4 70.8	67.6 54.3 64.4 69.4	62.8 53.9 65.3	70.5 61.0 71.8	71.1 61.3 72.0			

PROJECT: 0	Gardena Land Use Plan	and Zoning	Amendments								JOB #:	0462-2020-27
	Vestern Ave.		anenanento								DATE:	16-May-23
SEGMENT 1	158th St. to 162nd St.										ENGINEER:	C. Pincock
LOCATION:	Gardena, CA		SCENARIO:	Cumulative								
					NOISE		ΔΤΔ					
					NOISE							
	ROADWA	AY CONDI	TIONS					RECEIVER	INPUT D	ΑΤΑ		
ADT =	32,700					RECEIVER D	STANCE =		50			
SPEED =	40					DIST C/L TO			0			
PK HR % =	10					RECEIVER H			5			
NEAR LANE/FAR LANE						WALL DISTA		RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVAT			0			
GRADE =	0					ROADWAY	/IEW:	LF ANGLE	-90			
PK HR VOL =	3,270							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIO	DN		
AUTOMOBILES	10					HTH WALL =		FT				
MED TRUCKS	10		(HARD SITE=	=10, SOFT SI	TE=15)	AMBIENT =	0					
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERM)			
	VEHICLE N	ΛΙΧ DATA						MISC. VE	HICLE INF	0		
									UFICUT			
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE T			SLE DISTANC	E GRADE AD.	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI		2.00	43.4		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	43.3		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	43.4	0.0	)
					NOISE	OUTPU	Γ DATA					
				NOISE IN	IPACTS (N	/ІТНОИТ 1	OPO OR E	BARRIER S	HIELDING	)		
									CNEL	1		
			VDF			EVENIEO		יאסד		1		
				PK HR LEC						1		
		AUTOMOB	ILES	71.5	69.3	68.4	63.6	71.4	71.9			
		AUTOMOB MEDIUM T	ILES RUCKS	71.5 61.0	69.3 58.7	68.4 55.2	63.6 54.8	71.4 61.9	71.9 62.1			
		AUTOMOB	ILES RUCKS	71.5	69.3	68.4	63.6	71.4	71.9			
		AUTOMOB MEDIUM T	ILES RUCKS JCKS	71.5 61.0	69.3 58.7	68.4 55.2	63.6 54.8	71.4 61.9	71.9 62.1			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS	71.5 61.0 70.4	69.3 58.7 67.3	68.4 55.2 65.2	63.6 54.8 66.1	71.4 61.9 72.6	71.9 62.1 72.8			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS	71.5 61.0 70.4	69.3 58.7 67.3 71.6	68.4 55.2 65.2 70.2	63.6 54.8 66.1	71.4 61.9 72.6	71.9 62.1 72.8			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS R NOISE	71.5 61.0 70.4 74.2	69.3 58.7 67.3 71.6 NOISE CON	68.4 55.2 65.2 70.2	63.6 54.8 66.1 68.3	71.4 61.9 72.6 75.3	71.9 62.1 72.8			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS	71.5 61.0 70.4 74.2	69.3 58.7 67.3 71.6	68.4 55.2 65.2 70.2	63.6 54.8 66.1	71.4 61.9 72.6	71.9 62.1 72.8			

PROJECT:	Gardena Land Use Plan	and Zoning	Amendments								JOB #:	0462-2020-2
	Western Ave.		Amenuments								DATE:	16-May-23
	L66th St. to Artesia Blvd	l.									ENGINEER:	C. Pincock
	Gardena, CA		SCENARIO:	Cumulative								
					NOICE							
					NOISE	INPUT I						
	ROADWA	AY CONDI	TIONS					RECEIVER	R INPUT D	ΑΤΑ		
ADT =	33,300					RECEIVER D	ISTANCE =		50			
SPEED =	40					DIST C/L TC	WALL =		0			
PK HR % =	10					RECEIVER H	IEIGHT =		5			
NEAR LANE/FAR LANE	DIST = 50					WALL DIST	ANCE FROM F	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	TION =		0			
GRADE =	0					ROADWAY		LF ANGLE	-90			
PK HR VOL =	3,330							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIO	ON		
AUTOMOBILES	10					HTH WALL	= 0	FT				
MED TRUCKS	10		(HARD SITE:	=10, SOFT SIT	FE=15)	AMBIENT =	0					
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERM)			
										•		
			1					MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	/PE	HEIGHT	SLE DISTANC	CE GRADE AD	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI	LES =	2.00	43.4		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR	UCKS=	4.00	43.3		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	43.4	0.0	)
					NOISE	Ουτρυ	T DATA					
							TOPO OR E			1		
				NOISE IN	IPACIS (N	ΠΗΟΟΓΙ	IOPO OR E	DARRIER S	HIELDING	/		
		VEHICLE T	YPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL	]		
		AUTOMOB	ILES	71.6	69.3	68.5	63.7	71.5	72.0			
		I	RUCKS	61.0	58.7	55.2	54.9	61.9	62.2			
		MEDIUM T		1	67.2	65.3	66.2	72.7	72.9			
		MEDIUM T HEAVY TRU	JCKS	70.5	67.3	05.5						
				70.5	71.7	70.3	68.3	75.3	75.7			
		HEAVY TRU		1	I		68.3		75.7			
		HEAVY TRU		1	I		68.3		75.7			
		HEAVY TRU	R NOISE	74.3	71.7 NOISE CON	70.3	I 	75.3	75.7			
		HEAVY TRU		74.3	71.7	70.3	68.3 60 dBA 1859		75.7			

	Condens ton 111 - Ci		•								JOB #:	0462-2020-27
	Gardena Land Use Plan : Western Ave.	and Zoning	Amendments								DATE:	16-May-23
	Artesia Blvd. to 182nd S	t.									ENGINEER:	C. Pincock
	Gardena, CA		SCENARIO:	Cumulative	1							
					NOISE	INPUT [	DATA					
	ROADWA	AY COND	TIONS					RECEIVER	R INPUT D	ATA		
ADT =	30,900					RECEIVER D	ISTANCE =		50			
SPEED =	40					DIST C/L TO	WALL =		0			
PK HR % =	10					RECEIVER H	EIGHT =		5			
NEAR LANE/FAR LANE	DIST = 50					WALL DISTA	NCE FROM I	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	TION =		0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE	-90			
PK HR VOL =	3,090							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIO	ON		
AUTOMOBILES	10					HTH WALL	- 0	FT				
MED TRUCKS	10		(HARD SITE:		TE=15)	AMBIENT =						
HVY TRUCKS	10			-10, 5011 51	11-13)	BARRIER =		(0=WALL,1=				
								(*				
	VEHICLE N		4					MISC. VE	HICLE INF	0		
	DAY	51/5	NICUT	DAUX				VDF	ныснт	SLE DISTANC		UISTMENT
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE T				L GRADE AD.	
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI		2.00	43.4		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	43.3		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	43.4	0.0	)
					NOISE	Ουτρυ	T DATA					
				NOISE IN	IPACTS (V	VITHOUT 1	TOPO OR E	BARRIER S	HIELDING	)		
					1							
		VEHICLE 1			DAY LEQ				CNEL	ł		
		AUTOMOE		71.3	69.0	68.2	63.4	71.1	71.7			
			RUCKS	60.7	58.4	54.9	54.5	61.6	61.9			
		MEDIUM T				65.0	65.9	72.4	72.6			
		MEDIUM T HEAVY TRU		70.2	67.0							
			JCKS	70.2	71.4	70.0	68.0	75.0	75.4			
		HEAVY TRU	JCKS	1		I	68.0	75.0	75.4			
		HEAVY TRU	JCKS	1	71.4	70.0	68.0	75.0	75.4			
		HEAVY TRU	JCKS R NOISE	74.0	71.4 NOISE CON	70.0	1	1	75.4			
		HEAVY TRU	JCKS	74.0	71.4	70.0	68.0	75.0 55 dBA 5454	75.4			

PROJECT:	Gardena Land Use Plan a	and Zoria	Amondm+								JOB #:	0462-2020-27
	Gardena Land Use Plan a Normandie Ave.	and Zoning A	Amendments								DATE:	16-May-23
	135th St. to Rosecrans A										ENGINEER:	C. Pincock
	Gardena, CA		SCENARIO:	Cumulative								
					NOISE	INPUT	DATA					
	ROADWA	Y CONDI	TIONS					RECEIVER	R INPUT D	ATA		
ADT =	20,200					RECEIVER	DISTANCE =		50			
SPEED =	35					DIST C/L TO	WALL =		0			
PK HR % =	10					RECEIVER	IEIGHT =		5			
NEAR LANE/FAR LANE	DIST = 40					WALL DIST	ANCE FROM R	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	TION =		0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE	-90			
PK HR VOL =	2,020							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL IN	ORMATIC	ON		
AUTOMOBILES	10					HTH WALL	= 0	FT				
MED TRUCKS	10			=10, SOFT SIT	(F-15)	AMBIENT =						
HVY TRUCKS	10		(ITAILD SITE	-10, 3011 311	12-13)	BARRIER =		(0=WALL,1=	BEDM)			
								. ,				
	VEHICLE N	/IIX DATA						MISC. VE	HICLE INFO	0		
VEHICLE TYPE	DAY	EVE	NICUT	DAULY			VEHICLE T	/DF	HEIGHT	SLE DISTANC		UISTMENT
	0.708	0.146	NIGHT 0.146	DAILY 0.958			AUTOMOBII		2.00	45.9		CO TIME T
MEDIUM TRUCKS	0.708	0.146		0.958			MEDIUM TR					
HEAVY TRUCKS		0.079	0.217 0.332	0.011					4.00	45.8 45.9	0.0	
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	LKS =	8.01	45.9	0.0	J
					NOISE	Ουτρυ	T DATA					
				NOISE IN	IPACTS (V	VITHOUT	TOPO OR B	ARRIER S	HIELDING	)		
		VEHICLE T	YPE				NIGHT LEQ		CNEL			
				67.5	65.2	64.4	59.6	67.4	67.9			
		AUTOMOB							500	1		
				57.7	55.4	51.9	51.5	58.6	58.9			
		AUTOMOB	RUCKS		55.4 64.4	51.9 62.3	51.5 63.2	58.6 69.8	58.9 70.0			
		AUTOMOB MEDIUM T	RUCKS ICKS	57.7								
		AUTOMOB MEDIUM T HEAVY TRL	RUCKS ICKS	57.7 67.6	64.4	62.3	63.2	69.8	70.0			
		AUTOMOB MEDIUM T HEAVY TRL	RUCKS ICKS	57.7 67.6	64.4	62.3	63.2	69.8	70.0			
		AUTOMOB MEDIUM T HEAVY TRL	RUCKS ICKS	57.7 67.6	64.4	62.3	63.2	69.8	70.0			
		AUTOMOB MEDIUM T HEAVY TRL	RUCKS ICKS	57.7 67.6 70.8	64.4	62.3	63.2	69.8	70.0			

PROJECT:	Gardena Land Use Plan	and Zoning	Amendments								JOB #:	0462-2020-27
	Normandie Ave.	unu 2011.187									DATE:	16-May-23
	170th St. to Artesia Blvd	ł.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA		SCENARIO:	Cumulative								
					NOICE							
					NOISE	INPUT I						
	ROADWA	AY CONDI	TIONS					RECEIVER	R INPUT D	ATA		
ADT =	27,700					RECEIVER D	ISTANCE =		50			
SPEED =	35					DIST C/L TO	WALL =		0			
PK HR % =	10					RECEIVER H	EIGHT =		5			
NEAR LANE/FAR LANE	DIST = 40					WALL DIST	ANCE FROM R	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	TION =		0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE	-90			
PK HR VOL =	2,770							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	IDITIONS						WALL INF	ORMATIC	N		
AUTOMOBILES	10					HTH WALL	= 0	FT				
MED TRUCKS	10		(HARD SITE:	10, SOFT SIT	F=15)	AMBIENT =						
HVY TRUCKS	10			-10, 5011 511	2-13)	BARRIER =		(0=WALL,1=	RERM)			
								, ,	,			
	VEHICLE N	MIX DATA						MISC. VE	HICLE INFO	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE T	/PF	HEIGHT	SLE DISTANC	E GRADE ADJ	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI		2.00	45.9		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	45.8		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU		8.01	45.9	0.0	1
					NOISE	Ουτρυ	T DATA					
				NOISE IM	IPACTS (V	/ITHOUT	TOPO OR B	BARRIER S	HIELDING)			
			VDE		DAVISO	EVENIES	NICHTICO	IDM	CNIE			
							NIGHT LEQ		CNEL			
		AUTOMOB	ILES	68.9	66.6	65.8	61.0	68.7	69.3			
		AUTOMOB MEDIUM T	ILES RUCKS	68.9 59.1	66.6 56.8	65.8 53.3	61.0 52.9	68.7 60.0	69.3 60.2			
		AUTOMOB	ILES RUCKS	68.9	66.6	65.8	61.0	68.7	69.3			
		AUTOMOB MEDIUM T	iles RUCKS JCKS	68.9 59.1	66.6 56.8	65.8 53.3	61.0 52.9	68.7 60.0	69.3 60.2			
		AUTOMOB MEDIUM T HEAVY TRU	iles RUCKS JCKS	68.9 59.1 68.9	66.6 56.8 65.8	65.8 53.3 63.7	61.0 52.9 64.6	68.7 60.0 71.1	69.3 60.2 71.3			
		AUTOMOB MEDIUM T HEAVY TRU	iles RUCKS JCKS	68.9 59.1 68.9 72.1	66.6 56.8 65.8 69.5	65.8 53.3 63.7 68.0	61.0 52.9 64.6	68.7 60.0 71.1	69.3 60.2 71.3			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS R NOISE	68.9 59.1 68.9 72.1	66.6 56.8 65.8 69.5 NOISE CON	65.8 53.3 63.7 68.0	61.0 52.9 64.6 66.4	68.7 60.0 71.1 73.3	69.3 60.2 71.3			
		AUTOMOB MEDIUM T HEAVY TRU	iles RUCKS JCKS	68.9 59.1 68.9 72.1	66.6 56.8 65.8 69.5	65.8 53.3 63.7 68.0	61.0 52.9 64.6	68.7 60.0 71.1	69.3 60.2 71.3			

DDO IFCT.	Condens los litto Si		•								JOB #:	0462-2020-27
	Gardena Land Use Plan : 135th St.	and Zoning	Amendments								DATE:	17-May-23
	Western Ave. to Norma	ndie Ave.									ENGINEER:	C. Pincock
	Gardena, CA		SCENARIO:	Existing								
					NOICE							
					NUISE	INPUT [						
	ROADWA	AY CONDI	TIONS					RECEIVER	R INPUT D	ΑΤΑ		
ADT =	16,858					RECEIVER D	ISTANCE =		50			
SPEED =	40					DIST C/L TO	WALL =		0			
PK HR % =	10					RECEIVER H			5			
NEAR LANE/FAR LANE							NCE FROM I	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA			0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE RT ANGLE	-90			
PK HR VOL =	1,686								90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	OPMATIC	N		
	SHECON	DITIONS							ONWAT	SN .		
AUTOMOBILES	10			10 COFT (1	TE 4E)	HTH WALL		FT				
MED TRUCKS HVY TRUCKS	10 10		(HARD SITE:	=10, SOFT SI	TE=15)	AMBIENT = BARRIER =		(0=WALL,1=				
						D, UNILLI	Ŭ	(0 11/122)2	521111			
	VEHICLE N	VIX DATA						MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE T	VDF	HEIGHT	SLE DISTANCI	E GRADE AD	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			АЛТОМОВІ		2.00	45.9		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	45.8		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU		8.01	45.9	0.0	)
					NOISE	OUTPU	T DATA					
				NOISE IN	NPACTS (N	/ITHOUT 1	OPO OR E	BARRIER S	HIELDING	)		
		VEHICLE T	YPE	PK HR LEC	DAY LEO	EVEN LEQ	NIGHT LEC		CNEL	1		
		IVEINCEE I			66.1	65.3	60.5	68.3	68.8	1		
		AUTOMOB	ILES	68.4		1	1	1	1			
				57.8	55.5	52.0	51.7	58.7	59.0			
		AUTOMOB	RUCKS			52.0 62.1	51.7 63.0	58.7 69.5	59.0 69.7			
		AUTOMOB MEDIUM T	RUCKS JCKS	57.8 67.3	55.5 64.1	62.1	63.0	69.5	69.7			
		AUTOMOB MEDIUM T HEAVY TRU	RUCKS JCKS	57.8	55.5							
		AUTOMOB MEDIUM T HEAVY TRU	RUCKS JCKS	57.8 67.3	55.5 64.1	62.1	63.0	69.5	69.7			
		AUTOMOB MEDIUM T HEAVY TRU	RUCKS JCKS	57.8 67.3	55.5 64.1	62.1	63.0	69.5	69.7			
		AUTOMOB MEDIUM T HEAVY TRU	RUCKS JCKS	57.8 67.3 71.1	55.5 64.1 68.5	62.1	63.0	69.5	69.7			

PROJECT:	Gardena Land Use Plan	and Zoning	Amendments								JOB #:	0462-2020-27
	Marine Ave.	anu zoning .	Amenuments								DATE:	17-May-23
	Crenshaw Blvd. to Van M	less Ave.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA		SCENARIO:	Existing								
					NOISE		ΔΤΔ					
					NOISE							
	ROADWA	AY CONDI	TIONS					RECEIVER	R INPUT D	ΑΤΑ		
ADT =	17,340					RECEIVER D			50			
SPEED = PK HR % =	35 10					DIST C/L TO RECEIVER H			0			
NEAR LANE/FAR LANE							NCE FROM I	PECEIVER -	5 50			
ROAD ELEVATION =	0					PAD ELEVAT		ALCEIVER -	0			
GRADE =	0					ROADWAY		LF ANGLE	-90			
PK HR VOL =	1,734							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIO	DN		
AUTOMOBILES	10					HTH WALL =	. 0	FT				
MED TRUCKS	10		(HARD SITE=	=10, SOFT SI	TE=15)	AMBIENT =	0					
HVY TRUCKS	10				,	BARRIER =	0	(0=WALL,1=	BERM)			
										0		
								MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE T	YPE	HEIGHT	SLE DISTANC	E GRADE AD	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI	LES =	2.00	47.8		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	47.7		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	47.8	0.0	)
					NOISE	OUTPU	T DATA					
				NOISE IN	IPACTS (V	/ITHOUT 1	OPO OR E	BARRIER S	HIELDING	)		
										1		
		VEHICI F T	YPE		DAVIEO	EVENIEO	NIGHTIEC		CNFL			
		VEHICLE T		<b>PK HR LEC</b> 66.7					<b>CNEL</b> 67.1			
		AUTOMOB	ILES	66.7	64.4	63.6	58.8	66.5	67.1			
			ILES RUCKS									
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS	66.7 56.9 66.7	64.4 54.6 63.5	63.6 51.1 61.5	58.8 50.7 62.4	66.5 57.8 68.9	67.1 58.0 69.1			
		AUTOMOB MEDIUM T	ILES RUCKS JCKS	66.7 56.9	64.4 54.6	63.6 51.1	58.8 50.7	66.5 57.8	67.1 58.0			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS	66.7 56.9 66.7	64.4 54.6 63.5	63.6 51.1 61.5	58.8 50.7 62.4	66.5 57.8 68.9	67.1 58.0 69.1			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS	66.7 56.9 66.7	64.4 54.6 63.5	63.6 51.1 61.5 65.8	58.8 50.7 62.4	66.5 57.8 68.9	67.1 58.0 69.1			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS	66.7 56.9 66.7 69.9	64.4 54.6 63.5 67.2	63.6 51.1 61.5 65.8	58.8 50.7 62.4	66.5 57.8 68.9	67.1 58.0 69.1			

PROJECT:	Gardena Land Use Plan a	and Zoning A	mendments								JOB #:	0462-2020-2
	Rosecrans Ave.	-									DATE:	17-May-23
SEGMENT	Van Ness Ave. to Wester	rn Ave.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA		SCENARIO:	Existing								
					NOISE	INPUT	DATA					
	ROADWA		TIONS					RECEIVER		ΔΤΔ		
			lions					RECEIVEN				
ADT =	31,758					RECEIVER	DISTANCE =		50			
SPEED =	40					DIST C/L TO	) WALL =		0			
PK HR % =	10					RECEIVER			5			
NEAR LANE/FAR LANE							ANCE FROM F	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA		lectiven -				
GRADE =	0					ROADWAY		LF ANGLE	0			
						KOADWAT			-90			
PK HR VOL =	3,176							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIO	DN		
AUTOMOBILES	10					HTH WALL	- 0	FT				
					F 4F)							
MED TRUCKS	10		(HARD SITE:	=10, SOFT SIT	E=15)	AMBIENT =						
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERIVIJ			
	VEHICLE N	VIX DATA						MISC. VE	HICLE INFO	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	/DF	HEIGHT	SLE DISTANCI	E GRADE AD	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI		2.00	38.1		
				0.938								
MEDIUM TRUCKS	0.704	0.079	0.217				MEDIUM TR		4.00	38.0	0.0	
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	38.1	0.0	)
					NOISE	OUTPU	T DATA					
				NOISE IM	PACTS (N	VITHOUT	TOPO OR B	BARRIER SI	HIELDING)			
		VEHICLE T	YPE	PK HR LEQ	DAY LEQ	EVEN LEO		LDN	CNEL			
		АUTOMOBI	LES	72.0	69.7	68.8	64.1	71.8	72.4			
		MEDIUM TR	RUCKS	61.4	59.1	55.6	55.2	62.3	62.5			
		HEAVY TRU		70.9	67.7	65.7	66.5	73.1	73.3			
				ıl	·	ı	· · ·					
		VEHICULAR	NOISE	74.7	72.0	70.7	68.7	75.7	76.1			
					NOISE CON	TOUR (FT)						
			NOISE LEVE		NOISE CON 70 dBA	TOUR (FT) 65 dBA	60 dBA	55 dBA				

PROJECT:	Gardena Land Use Plan a	and Zoning A	mendments								JOB #:	0462-2020-27
	Rosecrans Ave.										DATE:	17-May-23
SEGMENT	Western Ave. to Norma	ndie Ave.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA		SCENARIO:	Existing								
					NOISE		ΔΤΔ					
					NOISE							
	ROADWA	AY CONDIT	IONS					RECEIVER	R INPUT D	ATA		
ADT =	41,590					RECEIVER D	ISTANCE =		50			
SPEED =	40					DIST C/L TO	WALL =		0			
PK HR % =	10					RECEIVER H	EIGHT =		5			
NEAR LANE/FAR LANE	E DIST = 65					WALL DISTA	NCE FROM R	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	ION =		0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE	-90			
PK HR VOL =	4,159							RT ANGLE	90			
								DF ANGLE	180			
									100			
	SITE CON	DITIONS						WALL INF	ORMATIC	DN		
		-										
AUTOMOBILES	10					HTH WALL :	: 0	FT				
MED TRUCKS	10		(HARD SITE=		TF=15)	AMBIENT =						
HVY TRUCKS	10		(17110 0112	10,001101		BARRIER =		(0=WALL,1=	REDM)			
	VEHICLE N	IIX DATA						MISC. VE	HICLE INFO	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	(PE	HEIGHT	SLE DISTANCI	E GRADE ADJ	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI	LES =	2.00	38.1		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	38.0		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU		8.01	38.1	0.0	1
HEAVE TRUCKS	0.377	0.090	0.332	0.031			HEAVIIKO	CK3 -	8.01	30.1	0.0	
					NOISE	OUTPU	T DATA					
				NOISE IIV	IPACTS (N	/ITHOUT 1	OPO OR B	BARRIER S	HIELDING)			
			(05	DI/ / 10					<b>A</b> 100	1		
		VEHICLE TY			DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL			
		AUTOMOBI	LES	73.1	<b>DAY LEQ</b> 70.9	<b>EVEN LEQ</b> 70.0	NIGHT LEQ 65.3	LDN 73.0	73.5			
			LES		DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN				
		AUTOMOBI	LES RUCKS	73.1	<b>DAY LEQ</b> 70.9	<b>EVEN LEQ</b> 70.0	NIGHT LEQ 65.3	LDN 73.0	73.5			
		AUTOMOBI MEDIUM TF	LES RUCKS CKS	73.1 62.6	<b>DAY LEQ</b> 70.9 60.3	<b>EVEN LEQ</b> 70.0 56.8	NIGHT LEQ 65.3 56.4	LDN 73.0 63.5	73.5 63.7			
		AUTOMOBI MEDIUM TF HEAVY TRU	LES RUCKS CKS	73.1 62.6 72.0	<b>DAY LEQ</b> 70.9 60.3 68.9	<b>EVEN LEQ</b> 70.0 56.8 66.8	NIGHT LEQ 65.3 56.4 67.7	LDN 73.0 63.5 74.2	73.5 63.7 74.5			
		AUTOMOBI MEDIUM TF HEAVY TRU	LES RUCKS CKS	73.1 62.6 72.0	<b>DAY LEQ</b> 70.9 60.3 68.9 73.2	<b>EVEN LEQ</b> 70.0 56.8 66.8 71.9	NIGHT LEQ 65.3 56.4 67.7	LDN 73.0 63.5 74.2	73.5 63.7 74.5			
		AUTOMOBI MEDIUM TF HEAVY TRU	LES RUCKS CKS NOISE	73.1 62.6 72.0 75.8	DAY LEQ 70.9 60.3 68.9 73.2 NOISE CON	EVEN LEQ 70.0 56.8 66.8 71.9	NIGHT LEQ 65.3 56.4 67.7 69.9	LDN 73.0 63.5 74.2 76.9	73.5 63.7 74.5			
		AUTOMOBI MEDIUM TF HEAVY TRU	LES RUCKS CKS	73.1 62.6 72.0 75.8	<b>DAY LEQ</b> 70.9 60.3 68.9 73.2	<b>EVEN LEQ</b> 70.0 56.8 66.8 71.9	NIGHT LEQ 65.3 56.4 67.7	LDN 73.0 63.5 74.2	73.5 63.7 74.5			

PROJECT:	Gardena Land Use Plan a	and Zoning A	mondmonte								JOB #:	0462-2020-27
	Gardena Land Ose Plan a Western Ave.	ind Zoning Al	menaments								DATE:	17-May-23
	135th St. to Rosecrans A	we.									ENGINEER:	C. Pincock
	Gardena, CA		SCENARIO:	Existing								
					NIGISE							
					NOISE	INPUT [	DATA					
	ROADWA	AY CONDIT	IONS					RECEIVER	INPUT D	АТА		
ADT =	22,840					RECEIVER D	ISTANCE =		50			
SPEED =	40					DIST C/L TO	WALL =		0			
PK HR % =	10					RECEIVER H	EIGHT =		5			
NEAR LANE/FAR LANE	DIST = 50					WALL DISTA	NCE FROM R	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA			0			
GRADE =	0					ROADWAY		LF ANGLE	-90			
PK HR VOL =	2,284							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIC	DN		
AUTOMOBILES	10					HTH WALL		FT				
MED TRUCKS	10		(HARD SITE=	=10, SOFT SIT	FE=15)	AMBIENT =						
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERM)			
	VEHICLE N	IIX DATA						MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NICUT	DAULY			VEHICLE TY	/DF	HEIGHT	SLE DISTANC		USTMENT
AUTOMOBILES	0.708	0.146	NIGHT 0.146	DAILY 0.958			AUTOMOBI		2.00			
MEDIUM TRUCKS	0.708	0.146	0.146	0.958			MEDIUM TR		4.00	43.4 43.3		
HEAVY TRUCKS	0.577	0.090	0.332	0.011			HEAVY TRU		8.01	43.4	0.0	
HEAVE TROCKS	0.577	0.090	0.332	0.031			HEAVIIKO	CK3 -	8.01	43.4	0.0	
					NOISE	Ουτρυ	T DATA					
				NOISE IN	IPACTS (N	/ITHOUT 1	OPO OR B	BARRIER S	HIELDING,	)		
			'DF		DAVIED	EVENIEO	NIGHT LEO		CNEI	1		
							NIGHT LEQ		CNEL			
		AUTOMOBIL	LES	70.0	67.7	66.8	62.1	69.8	70.4			
		AUTOMOBIL MEDIUM TR	LES RUCKS	70.0 59.4	67.7 57.1	66.8 53.6	62.1 53.2	69.8 60.3	70.4 60.5			
		AUTOMOBIL	LES RUCKS	70.0	67.7	66.8	62.1	69.8	70.4			
		AUTOMOBIL MEDIUM TR	LES RUCKS CKS	70.0 59.4	67.7 57.1	66.8 53.6	62.1 53.2	69.8 60.3	70.4 60.5			
		AUTOMOBIL MEDIUM TR HEAVY TRUC	LES RUCKS CKS	70.0 59.4 68.9	67.7 57.1 65.7	66.8 53.6 63.7	62.1 53.2 64.5	69.8 60.3 71.1	70.4 60.5 71.3			
		AUTOMOBIL MEDIUM TR HEAVY TRUC	LES RUCKS CKS	70.0 59.4 68.9	67.7 57.1 65.7 70.0	66.8 53.6 63.7 68.7	62.1 53.2 64.5	69.8 60.3 71.1	70.4 60.5 71.3			
		AUTOMOBIL MEDIUM TR HEAVY TRUC VEHICULAR	LES LUCKS CKS NOISE	70.0 59.4 68.9 72.7	67.7 57.1 65.7 70.0	66.8 53.6 63.7 68.7	62.1 53.2 64.5 66.7	69.8 60.3 71.1 73.7	70.4 60.5 71.3			
		AUTOMOBIL MEDIUM TR HEAVY TRUC VEHICULAR	LES RUCKS CKS	70.0 59.4 68.9 72.7	67.7 57.1 65.7 70.0	66.8 53.6 63.7 68.7	62.1 53.2 64.5	69.8 60.3 71.1	70.4 60.5 71.3			

PROJECT		1									JOB #:	0462-2020-27
	Gardena Land Use Plan	and Zoning	Amendments								DATE:	17-May-23
	Marine Ave. Western Ave. to Norma	ndia Aua									ENGINEER:	C. Pincock
	Gardena, CA	nule Ave.	SCENARIO:	Evicting								
LOCATION.	Gardena, CA		SCEINARIO.	Existing								
					NOISE	INPUT I	DATA					
	ROADW	AY CONDI	TIONS					RECEIVER	R INPUT D	ATA		
ADT =	18,483					RECEIVER D	ISTANCE =		50			
SPEED =	30					DIST C/L TO	WALL =		0			
PK HR % =	10					RECEIVER H	EIGHT =		5			
NEAR LANE/FAR LANE	DIST = 25					WALL DIST	ANCE FROM R	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	TION =		0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE	-90			
PK HR VOL =	1,848							RT ANGLE	90			
								DF ANGLE	180			
									100			
	SITE CON	IDITIONS						WALL IN	ORMATIC	DN		
AUTOMOBILES	10					HTH WALL	- 0	FT				
MED TRUCKS	10		(HARD SITE:		FE-1E)	AMBIENT =						
HVY TRUCKS	10		(HARD SITE-	-10, 30FT 3H	12-13)	BARRIER =		(0=WALL,1=				
INT INDERS	10					DANNER -	Ŭ	(0-WALL,1-	DERMI			
	VEHICLE I	MIX DATA						MISC. VE	HICLE INFO	0		
	DAY	5.45	NICUT	DAUX				(D.C.	HEIGHT	SLE DISTANC		USTMENT
	DAY	EVE	NIGHT	DAILY			VEHICLE TY				E GRADE AD.	USTIVIENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI		2.00	48.5		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	48.4	0.0	
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	LKS =	8.01	48.5	0.0	J
					NOISE	Ουτρυ	T DATA					
				NOISE IM	IPACTS (V	/ITHOUT	TOPO OR B	ARRIER S	HIELDING)	)		
		V	2005	<b>DV / ID</b>	D411-1	F1/F21	NUC:		0			
		VEHICLE T					NIGHT LEQ		CNEL			
		AUTOMOB	ILES	65.0	62.7	61.8	57.1	64.8	65.4			
		AUTOMOB MEDIUM T	ILES RUCKS	65.0 56.1	62.7 53.7	61.8 50.3	57.1 49.9	64.8 57.0	65.4 57.2			
		AUTOMOB	ILES RUCKS	65.0	62.7	61.8	57.1	64.8	65.4			
		AUTOMOB MEDIUM T	ILES RUCKS JCKS	65.0 56.1	62.7 53.7	61.8 50.3	57.1 49.9	64.8 57.0	65.4 57.2			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS	65.0 56.1 66.3	62.7 53.7 63.1	61.8 50.3 61.1	57.1 49.9 62.0	64.8 57.0 68.5	65.4 57.2 68.7			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS	65.0 56.1 66.3	62.7 53.7 63.1 66.2	61.8 50.3 61.1 64.7	57.1 49.9 62.0	64.8 57.0 68.5	65.4 57.2 68.7			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS R NOISE	65.0 56.1 66.3 68.9	62.7 53.7 63.1 66.2 NOISE CON	61.8 50.3 61.1 64.7	57.1 49.9 62.0 63.4	64.8 57.0 68.5 70.3	65.4 57.2 68.7			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS	65.0 56.1 66.3 68.9	62.7 53.7 63.1 66.2	61.8 50.3 61.1 64.7	57.1 49.9 62.0	64.8 57.0 68.5	65.4 57.2 68.7			

PROJECT:	Gardena Land Use Plan a	and Zoning /	Amendments								JOB #:	0462-2020-27
ROADWAY	Redondo Beach Blvd.										DATE:	17-May-23
SEGMENT	Western Ave. to Norma	ndie Ave.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA		SCENARIO:	Existing								
					NOISE		DATA					
	DOADW		TIONS							a <del>T</del> a		
	ROADWA	AY CONDI	TIONS					RECEIVER		AIA		
ADT =	30,337					RECEIVER D	ISTANCE -		50			
SPEED =	30,337					DIST C/L TO			50			
PK HR % =	10					RECEIVER H			0			
									5			
NEAR LANE/FAR LANE							NCE FROM F	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVAT			0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE	-90			
PK HR VOL =	3,034							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIC	DN		
AUTOMOBILES	10					HTH WALL :	• 0	FT				
MED TRUCKS	10		(HARD SITE=	10, SOFT SI	TE=15)	AMBIENT =	0					
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERM)			
	VEHICLE N	/IIX DATA						MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	(PE	HEIGHT	SLE DISTANC	E GRADE ADJ	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI	LES =	2.00	43.4		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR	RUCKS=	4.00	43.3		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	43.4	0.0	)
					NOISE	OUTPU <sup>.</sup>	T DATA					
				NOISE IN	ADACTC /IA	/ITHOUT 1			HIELDING			
					IPACIS (M			АККІЕК Э				
					IPACIS (M		or o on E	OAKKIEK SI				
		V/FILLO: 5 =							015	1		
			YPE	PK HR LEC	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL			
		AUTOMOB	<b>YPE</b> ILES	<b>PK HR LEC</b> 69.5	<b>DAY LEQ</b> 67.3	<b>EVEN LEQ</b> 66.4	NIGHT LEQ 61.6	LDN 69.4	69.9			
		AUTOMOB MEDIUM T	<b>YPE</b> ILES RUCKS	<b>PK HR LEC</b> 69.5 59.7	<b>DAY LEQ</b> 67.3 57.4	<b>EVEN LEQ</b> 66.4 53.9	NIGHT LEQ 61.6 53.6	LDN 69.4 60.6	69.9 60.9			
		AUTOMOB	<b>YPE</b> ILES RUCKS	<b>PK HR LEC</b> 69.5	<b>DAY LEQ</b> 67.3	<b>EVEN LEQ</b> 66.4	NIGHT LEQ 61.6	LDN 69.4	69.9			
		AUTOMOB MEDIUM T	YPE ILES RUCKS ICKS	<b>PK HR LEC</b> 69.5 59.7	<b>DAY LEQ</b> 67.3 57.4	<b>EVEN LEQ</b> 66.4 53.9	NIGHT LEQ 61.6 53.6	LDN 69.4 60.6	69.9 60.9			
		AUTOMOB MEDIUM T HEAVY TRU	YPE ILES RUCKS ICKS	<b>PK HR LEC</b> 69.5 59.7 69.6	<b>DAY LEQ</b> 67.3 57.4 66.4	<b>EVEN LEQ</b> 66.4 53.9 64.4	NIGHT LEQ 61.6 53.6 65.2	LDN 69.4 60.6 71.8	69.9 60.9 72.0			
		AUTOMOB MEDIUM T HEAVY TRU	YPE ILES RUCKS ICKS	<b>PK HR LEC</b> 69.5 59.7 69.6	<b>DAY LEQ</b> 67.3 57.4 66.4 70.1	<b>EVEN LEQ</b> 66.4 53.9 64.4 68.7	NIGHT LEQ 61.6 53.6 65.2	LDN 69.4 60.6 71.8	69.9 60.9 72.0			
		AUTOMOB MEDIUM T HEAVY TRU	YPE ILES RUCKS ICKS R NOISE	<b>PK HR LEC</b> 69.5 59.7 69.6	DAY LEQ 67.3 57.4 66.4 70.1 NOISE CON	EVEN LEQ 66.4 53.9 64.4 68.7	NIGHT LEQ 61.6 53.6 65.2 67.0	LDN 69.4 60.6 71.8 74.0	69.9 60.9 72.0			
		AUTOMOB MEDIUM T HEAVY TRU	YPE ILES RUCKS ICKS	<b>PK HR LEC</b> 69.5 59.7 69.6	<b>DAY LEQ</b> 67.3 57.4 66.4 70.1	<b>EVEN LEQ</b> 66.4 53.9 64.4 68.7	NIGHT LEQ 61.6 53.6 65.2	LDN 69.4 60.6 71.8	69.9 60.9 72.0			

PROJECT:	Sardena Land Lico Plan	and Zoning	Amendmonto								JOB #:	0462-2020-27
	Gardena Land Use Plan Crenshaw Blvd.	anu zoning i	menaments								DATE:	17-May-23
	El Segundo Blvd. to 135	th St.									ENGINEER:	C. Pincock
	Gardena, CA		SCENARIO:	Existing								
	,,											
					NOISE	INPUT I	DATA					
	ROADWA	AY CONDI	TIONS			1		RECEIVER	R INPUT D	ATA		
ADT =	32,198					RECEIVER D	ISTANCE =		50			
SPEED =	35					DIST C/L TO	WALL =		0			
PK HR % =	10					RECEIVER H	EIGHT =		5			
NEAR LANE/FAR LANE	DIST = 45					WALL DIST	NCE FROM R	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	FION =		0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE	-90			
PK HR VOL =	3,220							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL IN	ORMATIC	N		
AUTOMOBILES	10					HTH WALL	. 0	FT				
MED TRUCKS	10		(HARD SITE:	10, SOFT SIT	F=15)	AMBIENT =						
HVY TRUCKS	10		(ITAILD SITE)	-10, 5011 511	L=13)	BARRIER =		(0=WALL,1=	BERM)			
								. ,				
	VEHICLE N	VIX DATA						MISC. VE	HICLE INFO	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	/PF	HEIGHT	SLE DISTANC	E GRADE AD	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBII		2.00	44.8		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	44.7		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU		8.01	44.8	0.0	)
					NOISE	Ουτρυ	T DATA					
				NOISE IM	IPACTS (N	/ITHOUT	OPO OR B	BARRIER S	HIELDING)			
		VEHICLET	YPF		DAVIEO		NIGHT LEO		CNEL			
		VEHICLE T					NIGHT LEQ		<b>CNEL</b>	,		
		AUTOMOB	ILES	69.7	67.4	66.5	61.8	69.5	70.1			
		AUTOMOB MEDIUM T	ILES RUCKS	69.7 59.9	67.4 57.5	66.5 54.1	61.8 53.7	69.5 60.8	70.1 61.0			
		AUTOMOB	ILES RUCKS	69.7	67.4	66.5	61.8	69.5	70.1			
		AUTOMOB MEDIUM T	iles RUCKS JCKS	69.7 59.9	67.4 57.5	66.5 54.1	61.8 53.7	69.5 60.8	70.1 61.0			
		AUTOMOB MEDIUM T HEAVY TRU	iles RUCKS JCKS	69.7 59.9 69.7	67.4 57.5 66.5	66.5 54.1 64.5	61.8 53.7 65.4	69.5 60.8 71.9	70.1 61.0 72.1			
		AUTOMOB MEDIUM T HEAVY TRU	iles RUCKS JCKS	69.7 59.9 69.7 72.9	67.4 57.5 66.5 70.2	66.5 54.1 64.5 68.8	61.8 53.7 65.4	69.5 60.8 71.9	70.1 61.0 72.1			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS R NOISE	69.7 59.9 69.7 72.9	67.4 57.5 66.5 70.2 NOISE CON	66.5 54.1 64.5 68.8	61.8 53.7 65.4 67.1	69.5 60.8 71.9 74.1	70.1 61.0 72.1			
		AUTOMOB MEDIUM T HEAVY TRU	iles RUCKS JCKS	69.7 59.9 69.7 72.9	67.4 57.5 66.5 70.2	66.5 54.1 64.5 68.8	61.8 53.7 65.4	69.5 60.8 71.9	70.1 61.0 72.1			

PROJECT:	Gardena Land Use Plan a	and Zoning A	mendments								JOB #:	0462-2020-27
	Crenshaw Blvd.	and zoning A	menuments								DATE:	17-May-23
	135th St. to Rosecrans A	we.									ENGINEER:	C. Pincock
	Gardena, CA		SCENARIO:	Existing								
					NOISE							
					NOISE	INPUT [						
	ROADWA		IIONS					RECEIVER	R INPUT D	ATA		
ADT =	27,764					RECEIVER D	ISTANCE =		50			
SPEED =	40					DIST C/L TO	WALL =		0			
PK HR % =	10					RECEIVER H	EIGHT =		5			
NEAR LANE/FAR LANE	DIST = 45					WALL DISTA	NCE FROM F	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVAT	ION =		0			
GRADE =	0					ROADWAY	/IEW:	LF ANGLE	-90			
PK HR VOL =	2,776							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIC	DN		
AUTOMOBILES	10					HTH WALL =	0	FT				
MED TRUCKS	10		(HARD SITE=	10, SOFT SI7	ГЕ=15)	AMBIENT =	0					
HVY TRUCKS	10			,		BARRIER =		(0=WALL,1=	BERM)			
	VEHICLE N	ΛΙΧ DATA						MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE T	VDE	HEIGHT	SI F DISTANO	CE GRADE AD.	USTMENT
	0.708	0.146	0.146	0.958			AUTOMOBI		2.00	44.8		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	44.8		
	0.577	0.090	0.332	0.011			HEAVY TRU		8.01	44.7	0.0	
HEAVY TRUCKS												
HEAVY TRUCKS												
HEAVY TRUCKS												
HEAVY TRUCKS					NOISE	OUTPU	T DATA					
HEAVY TRUCKS				NOISE IM	NOISE			BARRIER S	HIELDING	)		
HEAVY TRUCKS				NOISE IM				BARRIER S	HIELDING,	)		
HEAVY TRUCKS		VEHICLE T				/ITHOUT 1	OPO OR E		HIELDING			
HEAVY TRUCKS		VEHICLE T	YPE		IPACTS (W	/ITHOUT 1	OPO OR E					
HEAVY TRUCKS			YPE LES	PK HR LEQ	IPACTS (W	EVEN LEQ	OPO OR E	LDN	CNEL			
HEAVY TRUCKS		AUTOMOBI	YPE LES RUCKS	<b>PK HR LEQ</b> 70.7	IPACTS (M DAY LEQ 68.4	<b>EVEN LEQ</b> 67.6	OPO OR E NIGHT LEQ 62.8	LDN 70.5	<b>CNEL</b> 71.1			
HEAVY TRUCKS		AUTOMOBI MEDIUM TF HEAVY TRU	YPE LES RUCKS CKS	PK HR LEQ 70.7 60.1 69.6	<b>DAY LEQ</b> 68.4 57.8 66.4	/ITHOUT 1 EVEN LEQ 67.6 54.3 64.4	OPO OR E NIGHT LEQ 62.8 53.9 65.3	LDN 70.5 61.0 71.8	<b>CNEL</b> 71.1 61.3 72.0			
HEAVY TRUCKS		AUTOMOBI MEDIUM TF	YPE LES RUCKS CKS	<b>PK HR LEQ</b> 70.7 60.1	1PACTS (W DAY LEQ 68.4 57.8	/ITHOUT 1 EVEN LEQ 67.6 54.3	OPO OR E NIGHT LEQ 62.8 53.9	LDN 70.5 61.0	CNEL 71.1 61.3			
HEAVY TRUCKS		AUTOMOBI MEDIUM TF HEAVY TRU	YPE LES RUCKS CKS	PK HR LEQ 70.7 60.1 69.6	<b>DAY LEQ</b> 68.4 57.8 66.4	/ITHOUT 1 EVEN LEQ 67.6 54.3 64.4	OPO OR E NIGHT LEQ 62.8 53.9 65.3	LDN 70.5 61.0 71.8	<b>CNEL</b> 71.1 61.3 72.0			
HEAVY TRUCKS		AUTOMOBI MEDIUM TF HEAVY TRU	YPE LES RUCKS CKS	PK HR LEQ 70.7 60.1 69.6	<b>DAY LEQ</b> 68.4 57.8 66.4	<b>EVEN LEQ</b> 67.6 54.3 64.4 69.4	OPO OR E NIGHT LEQ 62.8 53.9 65.3	LDN 70.5 61.0 71.8	<b>CNEL</b> 71.1 61.3 72.0			
HEAVY TRUCKS		AUTOMOBI MEDIUM TF HEAVY TRU	YPE LES RUCKS CKS	PK HR LEQ 70.7 60.1 69.6 73.4	<b>DAY LEQ</b> 68.4 57.8 66.4 70.8	<b>EVEN LEQ</b> 67.6 54.3 64.4 69.4	OPO OR E NIGHT LEQ 62.8 53.9 65.3	LDN 70.5 61.0 71.8	<b>CNEL</b> 71.1 61.3 72.0			
HEAVY TRUCKS		AUTOMOBI MEDIUM TF HEAVY TRU	YPE LES RUCKS CKS NOISE	PK HR LEQ 70.7 60.1 69.6 73.4	DAY LEQ           68.4           57.8           66.4           70.8	<b>EVEN LEQ</b> 67.6 54.3 64.4 69.4	<b>NIGHT LEQ</b> 62.8 53.9 65.3 67.4	LDN 70.5 61.0 71.8 74.4	<b>CNEL</b> 71.1 61.3 72.0			

PROJECT:	Gardena Land Use Plan	and Zoning	Amendmonto								JOB #:	0462-2020-27
	Gardena Land Use Plan a	and Zoning A	Amendments								DATE:	17-May-23
SEGMENT	Rosecrans Ave. to Marir	e Ave									ENGINEER:	C. Pincock
	Gardena, CA		SCENARIO:	Existing								
200,11011			Section	Lingenig								
					NOISE	INPUT	DATA					
	ROADWA	Y CONDI	TIONS					RECEIVER	R INPUT D	ΑΤΑ		
ADT =	27,485					RECEIVER	DISTANCE =		50			
SPEED =	40					DIST C/L TO	) WALL =		0			
PK HR % =	10					RECEIVER	HEIGHT =		5			
NEAR LANE/FAR LAN	E DIST = 45					WALL DIST	ANCE FROM F	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	TION =		0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE	-90			
PK HR VOL =	2,749							RT ANGLE	90			
								DF ANGLE	180			
									100			
	SITE CON	DITIONS						WALL IN	ORMATIC	DN		
							_ ^	r <b>T</b>				
AUTOMOBILES	10			10 0055 05		HTH WALL		FT				
MED TRUCKS	10		(HARD SITE:	=10, SOFT SIT	IE=15)	AMBIENT =			05014			
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	DERIVI			
	VEHICLE N	ΛΙΧ DATA						MISC. VE	HICLE INF	0		
									-			
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY			SLE DISTANC	CE GRADE AD.	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI		2.00	44.8		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	44.7		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	44.8	0.0	)
					NOISE	Ουτρυ	T DATA					
				NOISE IN	IPACTS (V	VITHOUT	TOPO OR B	BARRIFR S	HIFLDING	)		
										_		
			VDF	PK HR LEQ			NIGHT LEQ		CNEL	l		
		VEHICLE T				67.5	62.8	70.5	71.0			
		AUTOMOB	ILES	70.7	68.4							
		AUTOMOB MEDIUM T	ILES RUCKS	60.1	68.4 57.8	54.3	53.9	61.0	61.2			
		AUTOMOB	ILES RUCKS				53.9 65.2		61.2 72.0			
		AUTOMOB MEDIUM T	ILES RUCKS ICKS	60.1	57.8	54.3		61.0				
		AUTOMOB MEDIUM T HEAVY TRL	ILES RUCKS ICKS	60.1 69.5	57.8 66.4	54.3 64.3	65.2	61.0 71.8	72.0			
		AUTOMOB MEDIUM T HEAVY TRL	ILES RUCKS ICKS	60.1 69.5	57.8 66.4	54.3 64.3	65.2	61.0 71.8	72.0			
		AUTOMOB MEDIUM T HEAVY TRL	ILES RUCKS ICKS R NOISE	60.1 69.5 73.4	57.8 66.4 70.7 NOISE CON	54.3 64.3 69.4	65.2	61.0 71.8 74.4	72.0			
		AUTOMOB MEDIUM T HEAVY TRL	ILES RUCKS ICKS	60.1 69.5 73.4	57.8 66.4 70.7	54.3 64.3 69.4	65.2	61.0 71.8	72.0			

PROJECT: G	ardena Land Use Plan	and Zoning	Amendmonto								JOB #:	0462-2020-27
	iardena Land Use Plan Crenshaw Blvd.	and zoning i	Amenaments								DATE:	17-May-23
	Aarine Ave. to Manhat	tan Beach B!	vd.								ENGINEER:	C. Pincock
	ardena, CA		SCENARIO:	Existing								
					NOISE		ΔΤΔ					
					NOISE							
	ROADW	AY CONDI	TIONS					RECEIVER	INPUT D	ΑΤΑ		
ADT =	24,671					RECEIVER D			50			
SPEED = PK HR % =	40 10					DIST C/L TO RECEIVER H			0			
NEAR LANE/FAR LANE						WALL DISTA		ECEIVER -	5 50			
ROAD ELEVATION =	0					PAD ELEVAT		ALCEIVEN -	0			
GRADE =	0					ROADWAY		LF ANGLE	-90			
PK HR VOL =	2,467							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIC	ON		
AUTOMOBILES	10					HTH WALL =	0	FT				
MED TRUCKS	10		(HARD SITE=	10, SOFT SI	TE=15)	AMBIENT =	0					
HVY TRUCKS	10			-,	- 7	BARRIER =		(0=WALL,1=	BERM)			
	VEHICLE I	ΜΙΧ DATA						MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	/PE	HEIGHT	SLE DISTANC	E GRADE AD	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			АUTOMOBI	LES =	2.00	44.8		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR	RUCKS=	4.00	44.7		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	44.8	0.0	)
					NOISE	Ουτρυ	T DATA					
				NOISE IN	IPACTS (N	/ІТНОИТ Т	OPO OR E	BARRIER S	HIELDING	)		
					DAVISO		NICUTICS		Chici	1		
				PK HR LEC		EVEN LEQ			CNEL	]		
		AUTOMOB	ILES	70.2	67.9	67.0	62.3	70.0	70.6			
		AUTOMOB MEDIUM T	ILES	70.2 59.6	67.9 57.3	67.0 53.8	62.3 53.4	70.0 60.5	70.6 60.8			
		AUTOMOB	ILES	70.2	67.9	67.0	62.3	70.0	70.6			
		AUTOMOB MEDIUM T	ILES RUCKS JCKS	70.2 59.6	67.9 57.3	67.0 53.8	62.3 53.4	70.0 60.5	70.6 60.8			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS	70.2 59.6 69.1	67.9 57.3 65.9	67.0 53.8 63.9	62.3 53.4 64.7	70.0 60.5 71.3	70.6 60.8 71.5			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS	70.2 59.6 69.1	67.9 57.3 65.9 70.2	67.0 53.8 63.9 68.9	62.3 53.4 64.7	70.0 60.5 71.3	70.6 60.8 71.5			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS JCKS	70.2 59.6 69.1 72.9	67.9 57.3 65.9	67.0 53.8 63.9 68.9	62.3 53.4 64.7	70.0 60.5 71.3	70.6 60.8 71.5			
		AUTOMOB MEDIUM T HEAVY TRU	ILES IRUCKS JCKS R NOISE	70.2 59.6 69.1 72.9	67.9 57.3 65.9 70.2	67.0 53.8 63.9 68.9	62.3 53.4 64.7 66.9	70.0 60.5 71.3 73.9	70.6 60.8 71.5			

PROJECT:	Gardena Land Use Plan :	and Zoning	Amendments								JOB #:	0462-2020-27
	Vestern Ave.		Amenuments								DATE:	17-May-23
	El Segundo Blvd. to 135	th St.									ENGINEER:	C. Pincock
	Gardena, CA		SCENARIO:	Existing								
				0								
					NOISE	INPUT I	DATA					
	ROADWA	AY CONDI	TIONS					RECEIVER	R INPUT D	ATA		
ADT =	21,028					RECEIVER D	ISTANCE =		50			
SPEED =	40					DIST C/L TO	WALL =		0			
PK HR % =	10					RECEIVER H	EIGHT =		5			
NEAR LANE/FAR LANE	DIST = 50					WALL DIST	NCE FROM R	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	TION =		0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE	-90			
PK HR VOL =	2,103							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIO	DN		
AUTOMOBILES	10					HTH WALL	= 0	FT				
MED TRUCKS	10		(HARD SITE:	=10, SOFT SIT	F=15)	AMBIENT =						
HVY TRUCKS	10		(Indie Sine-	-10, 5011 511	2-13)	BARRIER =		(0=WALL,1=	RERM)			
									·			
	VEHICLE N	VIX DATA						MISC. VE	HICLE INFO	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE T	/DF	HEIGHT	SLE DISTANC	E GRADE AD	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBII		2.00	43.4		
MEDIUM TRUCKS	0.708	0.079	0.217	0.011			MEDIUM TR		4.00	43.4		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU		8.01	43.4	0.0	)
	0.577	0.050	0.332	0.031			ILAVI INO.	ens -	0.01	-3	0.0	,
					NOISE	Ουτρυ	T DATA					
				NOISE IM	IPACTS (V	/ITHOUT	TOPO OR B	ARRIER S	HIELDING			
									CNEL	1		
		VELUCIE	VDE		DAVIES	EVENIES	NUCUTICO	101				
							NIGHT LEQ					
		AUTOMOB	ILES	69.6	67.3	66.5	61.7	69.5	70.0			
		AUTOMOB MEDIUM T	ILES RUCKS	69.6 59.0	67.3 56.7	66.5 53.3	61.7 52.9	69.5 59.9	70.0 60.2	r.		
		AUTOMOB	ILES RUCKS	69.6	67.3	66.5	61.7	69.5	70.0			
		AUTOMOB MEDIUM T	ILES RUCKS ICKS	69.6 59.0	67.3 56.7	66.5 53.3	61.7 52.9	69.5 59.9	70.0 60.2			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS ICKS	69.6 59.0 68.5	67.3 56.7 65.3	66.5 53.3 63.3	61.7 52.9 64.2	69.5 59.9 70.7	70.0 60.2 70.9			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS ICKS	69.6 59.0 68.5	67.3 56.7 65.3 69.7	66.5 53.3 63.3 68.3	61.7 52.9 64.2	69.5 59.9 70.7	70.0 60.2 70.9			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS ICKS R NOISE	69.6 59.0 68.5 72.3	67.3 56.7 65.3 69.7 NOISE CON	66.5 53.3 63.3 68.3	61.7 52.9 64.2 66.3	69.5 59.9 70.7 73.4	70.0 60.2 70.9			
		AUTOMOB MEDIUM T HEAVY TRU	ILES RUCKS ICKS	69.6 59.0 68.5 72.3	67.3 56.7 65.3 69.7	66.5 53.3 63.3 68.3	61.7 52.9 64.2	69.5 59.9 70.7	70.0 60.2 70.9			

PROJECT: G	Gardena Land Use Plan a	and Zoning Amer	dments								JOB #:	0462-2020-27
ROADWAY V	Vestern Ave.										DATE:	17-May-23
	.58th St. to 162nd St.										ENGINEER:	C. Pincock
LOCATION: G	Gardena, CA	SCE	NARIO: Exis	sting								
					NOISE		ATA					
	ROADWA	AY CONDITIO	NS					RECEIVER	INPUT D	ΑΤΑ		
ADT =	30,668					RECEIVER D	STANCE =		50			
SPEED =	40					DIST C/L TO	WALL =		0			
PK HR % =	10					RECEIVER H	EIGHT =		5			
NEAR LANE/FAR LANE	DIST = 50					WALL DISTA	NCE FROM F	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVAT	ION =		0			
GRADE =	0					ROADWAY	/IEW:	LF ANGLE	-90			
PK HR VOL =	3,067							RT ANGLE	90			
								DF ANGLE	180			
									100			
	SITE CON	DITIONS						WALL INF	ORMATIO	ON		
AUTOMOBILES	10					HTH WALL =	0	FT				
MED TRUCKS	10		RD SITE=10,	SOFT SITE	=15)	AMBIENT =	0					
HVY TRUCKS	10			5011 5112	-13)	BARRIER =		(0=WALL,1=	RERM)			
	VEHICLE N	AIX DATA						MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT [	DAILY			VEHICLE TY	(PE	HEIGHT	SLE DISTANC	E GRADE ADJ	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI	LES =	2.00	43.4		
MEDIUM TRUCKS	0.704			0.011			MEDIUM TR		4.00	43.3		
HEAVY TRUCKS	0.577			0.031			HEAVY TRU		8.01	43.4	0.0	I
						OUTPU <sup>-</sup>						
						00110	DATA					
			NO	DISE IMI	PACTS (W	ΊΤΗΟUΤ Τ	OPO OR B	BARRIER SI	HIELDING,			
			NO	DISE IMI	PACTS (W	ΊΤΗΟUΤ Τ	OPO OR B	BARRIER SI	HIELDING,			
		VEHICLE TYPE			PACTS (W DAY LEQ		OPO OR E		HIELDING CNEL	]		
		VEHICLE TYPE AUTOMOBILES	PK									
			РК	HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL			
		AUTOMOBILES	PK <s< td=""><td><b>HR LEQ</b> 71.3</td><td><b>DAY LEQ</b> 69.0</td><td><b>EVEN LEQ</b> 68.1</td><td>NIGHT LEQ 63.4</td><td>LDN 71.1</td><td><b>CNEL</b> 71.7</td><td></td><td></td><td></td></s<>	<b>HR LEQ</b> 71.3	<b>DAY LEQ</b> 69.0	<b>EVEN LEQ</b> 68.1	NIGHT LEQ 63.4	LDN 71.1	<b>CNEL</b> 71.7			
		AUTOMOBILES MEDIUM TRUCK	<b>PK</b> <5	71.3 60.7	<b>DAY LEQ</b> 69.0 58.4	<b>EVEN LEQ</b> 68.1 54.9	NIGHT LEQ 63.4 54.5	LDN 71.1 61.6	<b>CNEL</b> 71.7 61.8			
		AUTOMOBILES MEDIUM TRUCK HEAVY TRUCKS	<b>PK</b> <5	71.3 60.7 70.2	<b>DAY LEQ</b> 69.0 58.4 67.0	<b>EVEN LEQ</b> 68.1 54.9 64.9	NIGHT LEQ 63.4 54.5 65.8	LDN 71.1 61.6 72.4	<b>CNEL</b> 71.7 61.8 72.6			
		AUTOMOBILES MEDIUM TRUCK HEAVY TRUCKS	<b>PK</b> <5	HR LEQ       71.3       60.7       70.2	DAY LEQ 69.0 58.4 67.0 71.3	EVEN LEQ 68.1 54.9 64.9 70.0	NIGHT LEQ 63.4 54.5 65.8	LDN 71.1 61.6 72.4	<b>CNEL</b> 71.7 61.8 72.6			
		AUTOMOBILES MEDIUM TRUCK HEAVY TRUCKS VEHICULAR NOI	SE PK	HR LEQ       71.3       60.7       70.2	DAY LEQ 69.0 58.4 67.0 71.3 NOISE CON	EVEN LEQ 68.1 54.9 64.9 70.0	NIGHT LEQ 63.4 54.5 65.8 68.0	LDN 71.1 61.6 72.4 75.0	<b>CNEL</b> 71.7 61.8 72.6			
		AUTOMOBILES MEDIUM TRUCK HEAVY TRUCKS VEHICULAR NOI	SE IEVELS	HR LEQ       71.3       60.7       70.2	DAY LEQ 69.0 58.4 67.0 71.3	EVEN LEQ 68.1 54.9 64.9 70.0	NIGHT LEQ 63.4 54.5 65.8	LDN 71.1 61.6 72.4	<b>CNEL</b> 71.7 61.8 72.6			

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

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PROJECT:	Gardena Land Use Plan	and Zoning Arr	endments								JOB #:	0462-2020-27
	Western Ave.	and zoning All	enuments								DATE:	17-May-23
	Rosecrans Ave. to Marir	ie Ave.									ENGINEER:	C. Pincock
	Gardena, CA		CENARIO:	Existing								
					NOISE		ΔΤΑ					
					NOISE							
	ROADWA	AY CONDITI	ONS					RECEIVER	R INPUT D	ATA		
ADT =	26,365					RECEIVER D	ISTANCE -		50			
SPEED =	40					DIST C/L TO			50			
PK HR % =	40					RECEIVER H			0			
NEAR LANE/FAR LANE							NCE FROM F	PECEIVER -	5			
ROAD ELEVATION =	0					PAD ELEVAT		ALCEIVER -	50			
GRADE =	0					ROADWAY		LF ANGLE	0			
PK HR VOL =	2,637					NOADWAT	VIL VV.	RT ANGLE	-90			
	2,037							DF ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL IN	ORMATIC	DN		
AUTOMOBILES	10					HTH WALL :	. 0	FT				
MED TRUCKS	10		HARD SITE=	10, SOFT SIT	F=15)	AMBIENT =						
HVY TRUCKS	10		0.000	10,0011011	- 10)	BARRIER =		(0=WALL,1=	BERM)			
	VEHICLE N								HICLE INF	0		
	VENICLE							WISC. VE		0		
	DAY	5.//5	NICUT	DAWY				/DC	HEIGHT	SLE DISTANCE	GRADE ADI	USTMENT
	DAY	EVE	NIGHT	DAILY							GRADE ADJ	OSTIMENT
	0.708	0.146	0.146	0.958					2.00	43.4		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	43.3	0.0	
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	43.4	0.0	
					NOISE	OUTPU	T DATA					
				NOISE IM	PACTS (W	ΙΤΗΟυΤ Ι	OPO OR B	BARRIER S	HIELDING)			
				NOISE IM	PACTS (W	ITHOUT 1	OPO OR E	BARRIER S	HIELDING)			
		VEHICLE TYP	PE	NOISE IM PK HR LEQ					HIELDING) CNEL			
		<b>VEHICLE TYP</b> AUTOMOBILE	PE									
			PE IS	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL			
		AUTOMOBILE	PE IS ICKS	<b>PK HR LEQ</b> 70.6	<b>DAY LEQ</b> 68.3	<b>EVEN LEQ</b> 67.5	NIGHT LEQ 62.7	LDN 70.4	<b>CNEL</b> 71.0			
		AUTOMOBILE MEDIUM TRU	PE IS ICKS KS	<b>PK HR LEQ</b> 70.6 60.0	<b>DAY LEQ</b> 68.3 57.7	<b>EVEN LEQ</b> 67.5 54.2	NIGHT LEQ 62.7 53.8	LDN 70.4 60.9	<b>CNEL</b> 71.0 61.2			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCK	PE IS ICKS KS	<b>PK HR LEQ</b> 70.6 60.0 69.5	<b>DAY LEQ</b> 68.3 57.7 66.3	<b>EVEN LEQ</b> 67.5 54.2 64.3	NIGHT LEQ 62.7 53.8 65.2	LDN 70.4 60.9 71.7	<b>CNEL</b> 71.0 61.2 71.9			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCK	PE IS ICKS KS	PK HR LEQ 70.6 60.0 69.5 73.3	<b>DAY LEQ</b> 68.3 57.7 66.3	<b>EVEN LEQ</b> 67.5 54.2 64.3 69.3	NIGHT LEQ 62.7 53.8 65.2	LDN 70.4 60.9 71.7	<b>CNEL</b> 71.0 61.2 71.9			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCK VEHICULAR N	PE IS ICKS KS	PK HR LEQ 70.6 60.0 69.5 73.3	<b>DAY LEQ</b> 68.3 57.7 66.3 70.7	<b>EVEN LEQ</b> 67.5 54.2 64.3 69.3	NIGHT LEQ 62.7 53.8 65.2	LDN 70.4 60.9 71.7	<b>CNEL</b> 71.0 61.2 71.9			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCK VEHICULAR N	PE is icks cs OISE	PK HR LEQ 70.6 60.0 69.5 73.3	DAY LEQ 68.3 57.7 66.3 70.7 NOISE CON	EVEN LEQ 67.5 54.2 64.3 69.3	NIGHT LEQ 62.7 53.8 65.2 67.3	LDN 70.4 60.9 71.7 74.3	<b>CNEL</b> 71.0 61.2 71.9			

PROJECT: G	Gardena Land Use Plan a	and Zoning /	Amendments								JOB #:	0462-2020-2
ROADWAY V	Vestern Ave.										DATE:	17-May-23
SEGMENT 1	.66th St. to Artesia Blvd	l.									ENGINEER:	C. Pincock
LOCATION:	ardena, CA		SCENARIO:	Existing								
					NOISE		DATA					
	ROADWA		TIONS					RECEIVER		ΔΤΔ		
	NOADWA	IT CONDI	nons					NECEIVEN				
ADT =	31,208					RECEIVER D	ISTANCE =		50			
SPEED =	40					DIST C/L TO	WALL =		0			
PK HR % =	10					RECEIVER H			5			
NEAR LANE/FAR LANE							NCE FROM R	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA			0			
GRADE =	0					ROADWAY		LF ANGLE	-90			
PK HR VOL =	3,121							RT ANGLE	-90 90			
	5,121							DF ANGLE	90 180			
								DI ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIO	DN		
AUTOMOBILES	10					HTH WALL :	: 0	FT				
MED TRUCKS	10		(HARD SITE=	=10. SOFT SI7	(E=15)	AMBIENT =						
HVY TRUCKS	10		(		,	BARRIER =	0					
	VEHICLE N							MISC. VE		0		
	U EINIGEE N											
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY			SLE DISTANC	E GRADE ADJ	USTIVIENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI		2.00	43.4		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	43.3		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	43.4	0.0	1
					NOISE	OUTPU	T DATA					
				NOISE IM	αρλάτς /μ				HIELDING,	)		
				NOISE IIV	IFACIS (M		OPO OK E	SARRIER SI				
				NOISE IN	IFACTS (W		OF O OR B	SARRIER SI				
		VEHICLE T			DAY LEQ				CNEL	Ì		
		VEHICLE T AUTOMOBI	YPE						<b>CNEL</b> 71.7			
		AUTOMOB	<b>YPE</b> ILES	<b>PK HR LEQ</b> 71.3	<b>DAY LEQ</b> 69.0	<b>EVEN LEQ</b> 68.2	NIGHT LEQ 63.4	LDN 71.2	71.7			
			<b>YPE</b> ILES RUCKS	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN				
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS ICKS	PK HR LEQ 71.3 60.8 70.2	<b>DAY LEQ</b> 69.0 58.4 67.0	<b>EVEN LEQ</b> 68.2 55.0 65.0	NIGHT LEQ 63.4 54.6 65.9	LDN 71.2 61.7 72.4	71.7 61.9 72.6			
		AUTOMOB MEDIUM TI	YPE ILES RUCKS ICKS	<b>PK HR LEQ</b> 71.3 60.8	<b>DAY LEQ</b> 69.0 58.4	<b>EVEN LEQ</b> 68.2 55.0	NIGHT LEQ 63.4 54.6	LDN 71.2 61.7	71.7 61.9			
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS ICKS	PK HR LEQ 71.3 60.8 70.2	<b>DAY LEQ</b> 69.0 58.4 67.0	<b>EVEN LEQ</b> 68.2 55.0 65.0	NIGHT LEQ 63.4 54.6 65.9	LDN 71.2 61.7 72.4	71.7 61.9 72.6			
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS ICKS	PK HR LEQ 71.3 60.8 70.2	<b>DAY LEQ</b> 69.0 58.4 67.0	<b>EVEN LEQ</b> 68.2 55.0 65.0 70.0	NIGHT LEQ 63.4 54.6 65.9	LDN 71.2 61.7 72.4	71.7 61.9 72.6			
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS ICKS	<b>PK HR LEQ</b> 71.3 60.8 70.2 74.0	<b>DAY LEQ</b> 69.0 58.4 67.0 71.4	<b>EVEN LEQ</b> 68.2 55.0 65.0 70.0	NIGHT LEQ 63.4 54.6 65.9	LDN 71.2 61.7 72.4	71.7 61.9 72.6			
		AUTOMOBI MEDIUM TI HEAVY TRU	YPE ILES RUCKS ICKS R NOISE	<b>PK HR LEQ</b> 71.3 60.8 70.2 74.0	DAY LEQ 69.0 58.4 67.0 71.4 NOISE CON	EVEN LEQ 68.2 55.0 65.0 70.0	NIGHT LEQ 63.4 54.6 65.9 68.1	LDN 71.2 61.7 72.4 75.1	71.7 61.9 72.6			

PROJECT:	Gardena Land Use Plan a	and Zoning A	mendments								JOB #:	0462-2020-27
	Vestern Ave.		menuments								DATE:	17-May-23
	Artesia Blvd. to 182nd St	t.									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA		SCENARIO:	Existing								
					NOISE							
					NOISE							
	ROADWA	AY CONDIT	IONS					RECEIVER	INPUT D	ΑΤΑ		
ADT =	27,705					RECEIVER D			50			
SPEED =	40					DIST C/L TO			0			
PK HR % =	10					RECEIVER H			5			
NEAR LANE/FAR LANE							NCE FROM R	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVAT			0			
GRADE =	0					ROADWAY		LF ANGLE	-90			
PK HR VOL =	2,771							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON							WALL INF	OPMATIC	N		
	SITE CON	DITIONS							ONWATI			
AUTOMOBILES	10					HTH WALL :	. 0	FT				
MED TRUCKS	10		(HARD SITE=		F-15)	AMBIENT =						
HVY TRUCKS	10		(IIAND SITE-	-10, 3011 311	L=13)	BARRIER =		(0=WALL,1=	RERM)			
	VEHICLE N	AIX DATA						MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	(PE	HEIGHT	SLE DISTANC	E GRADE ADJ	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI	LES =	2.00	43.4		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR	RUCKS=	4.00	43.3		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	43.4	0.0	)
					NOISE	OUTPU <sup>.</sup>	T DATA					
									HIELDING	)		
				NOISE IM	IPACTS (N	ΠΗΟΟΓΙ	ΟΡΟ ΟΚ Β	BARRIER S				
				NOISE IM	IPACTS (N	ΠΗΟΟΓΙ	OPO OR B	BARRIER S				
		VEHICLE TY	YPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL	]		
		AUTOMOBI	<b>YPE</b> LES	<b>PK HR LEQ</b> 70.8	<b>DAY LEQ</b> 68.5	<b>EVEN LEQ</b> 67.7	NIGHT LEQ 62.9	LDN 70.7	71.2	]		
		AUTOMOBI MEDIUM TF	YPE LES RUCKS	<b>PK HR LEQ</b> 70.8 60.2	<b>DAY LEQ</b> 68.5 57.9	<b>EVEN LEQ</b> 67.7 54.4	NIGHT LEQ 62.9 54.1	LDN 70.7 61.1	71.2 61.4	]		
		AUTOMOBI	YPE LES RUCKS	<b>PK HR LEQ</b> 70.8	<b>DAY LEQ</b> 68.5	<b>EVEN LEQ</b> 67.7	NIGHT LEQ 62.9	LDN 70.7	71.2			
		AUTOMOBI MEDIUM TF	<b>YPE</b> LES RUCKS CKS	<b>PK HR LEQ</b> 70.8 60.2	<b>DAY LEQ</b> 68.5 57.9	<b>EVEN LEQ</b> 67.7 54.4	NIGHT LEQ 62.9 54.1	LDN 70.7 61.1	71.2 61.4			
		AUTOMOBI MEDIUM TF HEAVY TRU	<b>YPE</b> LES RUCKS CKS	<b>PK HR LEQ</b> 70.8 60.2 69.7	<b>DAY LEQ</b> 68.5 57.9 66.5	<b>EVEN LEQ</b> 67.7 54.4 64.5	NIGHT LEQ 62.9 54.1 65.4	LDN 70.7 61.1 71.9	71.2 61.4 72.1			
		AUTOMOBI MEDIUM TF HEAVY TRU	<b>YPE</b> LES RUCKS CKS	<b>PK HR LEQ</b> 70.8 60.2 69.7	<b>DAY LEQ</b> 68.5 57.9 66.5 70.9	<b>EVEN LEQ</b> 67.7 54.4 64.5 69.5	NIGHT LEQ 62.9 54.1 65.4	LDN 70.7 61.1 71.9	71.2 61.4 72.1			
		AUTOMOBI MEDIUM TF HEAVY TRU	YPE LES RUCKS CKS NOISE	<b>PK HR LEQ</b> 70.8 60.2 69.7 73.5	DAY LEQ 68.5 57.9 66.5 70.9 NOISE CON	EVEN LEQ 67.7 54.4 64.5 69.5	NIGHT LEQ 62.9 54.1 65.4 67.5	LDN 70.7 61.1 71.9 74.5	71.2 61.4 72.1			
		AUTOMOBI MEDIUM TF HEAVY TRU	<b>YPE</b> LES RUCKS CKS	<b>PK HR LEQ</b> 70.8 60.2 69.7 73.5	<b>DAY LEQ</b> 68.5 57.9 66.5 70.9	<b>EVEN LEQ</b> 67.7 54.4 64.5 69.5	NIGHT LEQ 62.9 54.1 65.4	LDN 70.7 61.1 71.9	71.2 61.4 72.1			

PROJECT:	Gardena Land Use Plan a	and Zoning A	mendmonto								JOB #:	0462-2020-27
	Normandie Ave.	ind zoning A	menuments								DATE:	17-May-23
	135th St. to Rosecrans A	we.									ENGINEER:	C. Pincock
	Gardena, CA		SCENARIO:	Existing								
					NOISE	INPUT [	DATA					
	ROADWA		TIONS					RECEIVER	R INPUT D	ATA		
ADT =	19,425					RECEIVER D	ISTANCE =		50			
SPEED =	35					DIST C/L TO	WALL =		0			
PK HR % =	10					RECEIVER H	EIGHT =		5			
NEAR LANE/FAR LANE	DIST = 40					WALL DISTA	NCE FROM R	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVA	FION =		0			
GRADE =	0					ROADWAY	VIEW:	LF ANGLE	-90			
PK HR VOL =	1,943							RT ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	ORMATIC	DN		
AUTOMOBILES	10					HTH WALL	= 0	FT				
MED TRUCKS	10		(HARD SITE=	=10, SOFT SI7	ГE=15)	AMBIENT =	0					
HVY TRUCKS	10					BARRIER =	0	(0=WALL,1=	BERM)			
	VEHICLE N	/IIX DATA						MISC. VE	HICLE INF	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY	/PE	HEIGHT	SLE DISTANC	E GRADE AD	USTMENT
AUTOMOBILES	0.708	0.146	0.146	0.958			AUTOMOBI	LES =	2.00	45.9		
		0.079	0.217	0.011					4.00	45.8		
	0.704						MEDIUM TR	UCKS=				
MEDIUM TRUCKS	0.704 0.577	0.090	0.332	0.031			HEAVY TRU		8.01	45.9	0.0	)
MEDIUM TRUCKS		0.090	0.332	0.031							0.0	)
MEDIUM TRUCKS		0.090	0.332	0.031	NOISE	ΟΠΤΡΠ	HEAVY TRU				0.0	)
MEDIUM TRUCKS		0.090				OUTPU	HEAVY TRUG	CKS =	8.01	45.9	0.0	)
MEDIUM TRUCKS		0.090			NOISE 11PACTS (W		HEAVY TRUG	CKS =	8.01	45.9	0.0	)
MEDIUM TRUCKS		0.090					HEAVY TRUG	CKS =	8.01	45.9	0.0	)
MEDIUM TRUCKS	0.577	VEHICLE T	YPE	NOISE IM	APACTS (W	EVEN LEQ	T DATA	CKS = BARRIER S	8.01 HIELDING	45.9	0.0	)
MEDIUM TRUCKS	0.577	VEHICLE TY AUTOMOBI	YPE LES	NOISE IM PK HR LEQ 67.4	<b>DAY LEQ</b> 65.1	EVEN LEQ 64.2	T DATA TOPO OR E NIGHT LEQ 59.5	CKS = DARRIER S LDN 67.2	8.01 HIELDING CNEL 67.8	45.9	0.0	)
MEDIUM TRUCKS	0.577	VEHICLE TY AUTOMOBI MEDIUM TR	YPE LES RUCKS	NOISE IM PK HR LEQ 67.4 57.6	APACTS (W           DAY LEQ           65.1           55.2	<b>EVEN LEQ</b> 64.2 51.8	T DATA TOPO OR E NIGHT LEQ 59.5 51.4	CKS = CARRIER S 67.2 58.5	8.01 HIELDING 67.8 58.7	45.9	0.0	)
MEDIUM TRUCKS	0.577	VEHICLE TY AUTOMOBI	YPE LES RUCKS	NOISE IM PK HR LEQ 67.4	<b>DAY LEQ</b> 65.1	EVEN LEQ 64.2	T DATA TOPO OR E NIGHT LEQ 59.5	CKS = DARRIER S LDN 67.2	8.01 HIELDING CNEL 67.8	45.9	0.0	)
MEDIUM TRUCKS	0.577	VEHICLE TY AUTOMOBI MEDIUM TR	YPE LES RUCKS CKS	NOISE IM PK HR LEQ 67.4 57.6	APACTS (W           DAY LEQ           65.1           55.2	<b>EVEN LEQ</b> 64.2 51.8	T DATA TOPO OR E NIGHT LEQ 59.5 51.4	CKS = CARRIER S 67.2 58.5	8.01 HIELDING 67.8 58.7	45.9	0.0	,
MEDIUM TRUCKS	0.577	VEHICLE TY AUTOMOBI MEDIUM TF HEAVY TRU	YPE LES RUCKS CKS	NOISE IM PK HR LEQ 67.4 57.6 67.4	<b>DAY LEQ</b> DAY LEQ           65.1           55.2           64.2	<b>EVEN LEQ</b> 64.2 51.8 62.2	HEAVY TRUE T DATA TOPO OR E 59.5 51.4 63.1	CKS = CKS = CKS = CKS = CKS =	8.01 HIELDING 67.8 58.7 69.8	45.9	0.0	)
MEDIUM TRUCKS	0.577	VEHICLE TY AUTOMOBI MEDIUM TF HEAVY TRU	YPE LES RUCKS CKS	NOISE IM PK HR LEQ 67.4 57.6 67.4	<b>DAY LEQ</b> 65.1 55.2 64.2 67.9	<b>EVEN LEQ</b> 64.2 51.8 62.2 66.5	HEAVY TRUE T DATA TOPO OR E 59.5 51.4 63.1	CKS = CKS = CKS = CKS = CKS =	8.01 HIELDING 67.8 58.7 69.8	45.9	0.0	,
MEDIUM TRUCKS	0.577	VEHICLE TY AUTOMOBI MEDIUM TF HEAVY TRU	YPE LES RUCKS CKS NOISE	NOISE IM PK HR LEQ 67.4 57.6 67.4 70.6	DAY LEQ           65.1           55.2           64.2           67.9	<b>EVEN LEQ</b> 64.2 51.8 62.2 66.5	HEAVY TRUE T DATA TOPO OR E 59.5 51.4 63.1 64.8	CKS = <b>ARRIER S</b> <b>IDN</b> 67.2 58.5 69.6 71.8	8.01 HIELDING 67.8 58.7 69.8	45.9	0.0	
MEDIUM TRUCKS HEAVY TRUCKS	0.577	VEHICLE TY AUTOMOBI MEDIUM TF HEAVY TRU	YPE LES RUCKS CKS	NOISE IM PK HR LEQ 67.4 57.6 67.4 70.6	<b>DAY LEQ</b> 65.1 55.2 64.2 67.9	<b>EVEN LEQ</b> 64.2 51.8 62.2 66.5	HEAVY TRUE T DATA TOPO OR E 59.5 51.4 63.1	CKS = CKS = CKS = CKS = CKS =	8.01 HIELDING 67.8 58.7 69.8	45.9	0.0	

PROJECT:	Gardena Land Use Plan a	and Zoning Amen	dments							JOB #:	0462-2020-27
	Normandie Ave.									DATE:	17-May-23
	170th St. to Artesia Blvd									ENGINEER:	C. Pincock
LOCATION:	Gardena, CA	SCEI	NARIO: Existing								
				NOISE	INPUT D	ATA					
	ROADWA	AY CONDITION	IS				RECEIVER		ΔΤΔ		
	NOADWA		5				RECEIVEN				
ADT =	26,240				RECEIVER DI	STANCE =		50			
SPEED =	35				DIST C/L TO			0			
PK HR % =	10				RECEIVER HE			5			
NEAR LANE/FAR LANE					WALL DISTA		RECEIVER =	50			
ROAD ELEVATION =	0				PAD ELEVAT			0			
GRADE =	0				ROADWAY		LF ANGLE				
PK HR VOL =	2,624				NOAD WAT V		RT ANGLE	-90			
	2,024						DF ANGLE	90			
							DF ANGLE	180			
	SITE CON	DITIONS					WALL INF	ODMATIC			
	SITE CON	DITIONS					WALLINF	ORMATIC	JIN		
AUTOMOBILES	10				HTH WALL =		FT				
MED TRUCKS	10	-	RD SITE=10, SOFT S	SITE=15)	AMBIENT =	0					
HVY TRUCKS	10				BARRIER =	0	(0=WALL,1=	BERINI)			
	VEHICLE N						MISC. VE	HICLE INFO	0		
								HEIGHT	SLE DISTANC		LICTRAENT
VEHICLE TYPE	DAY		NIGHT DAILY			VEHICLE TY				L GRADLAD	OSTIVILINI
AUTOMOBILES	0.708		0.146 0.958			AUTOMOBI		2.00	45.9		
MEDIUM TRUCKS	0.704		0.217 0.011			MEDIUM TR		4.00	45.8		
HEAVY TRUCKS	0.577	0.090 0	0.332 0.031			HEAVY TRU	CKS =	8.01	45.9	0.0	1
				NOISE	Ουτρυι	DATA					
			NOISE I	MPACTS (V		OPO OR F	BARRIFR S	HIELDING,			
								CNICI	i		
			PK HR LE	Q DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL			
		AUTOMOBILES	68.7	<b>Q DAY LEQ</b> 66.4	<b>EVEN LEQ</b> 65.5	NIGHT LEQ 60.8	LDN 68.5	69.1			
		AUTOMOBILES MEDIUM TRUCK	68.7 S 58.9	<b>Q DAY LEQ</b> 66.4 56.5	<b>EVEN LEQ</b> 65.5 53.1	<b>NIGHT LEQ</b> 60.8 52.7	<b>LDN</b> 68.5 59.8	69.1 60.0			
		AUTOMOBILES	68.7	<b>Q DAY LEQ</b> 66.4	<b>EVEN LEQ</b> 65.5	NIGHT LEQ 60.8	LDN 68.5	69.1			
		AUTOMOBILES MEDIUM TRUCK	68.7 S 58.9 68.7	<b>Q DAY LEQ</b> 66.4 56.5	<b>EVEN LEQ</b> 65.5 53.1	<b>NIGHT LEQ</b> 60.8 52.7	<b>LDN</b> 68.5 59.8	69.1 60.0			
		AUTOMOBILES MEDIUM TRUCK HEAVY TRUCKS	68.7 S 58.9 68.7	<b>Q DAY LEQ</b> 66.4 56.5 65.5	<b>EVEN LEQ</b> 65.5 53.1 63.5	NIGHT LEQ 60.8 52.7 64.4	<b>LDN</b> 68.5 59.8 70.9	69.1 60.0 71.1			
		AUTOMOBILES MEDIUM TRUCK HEAVY TRUCKS	68.7 S 58.9 68.7	Q         DAY LEQ           66.4         56.5           65.5         65.5	<b>EVEN LEQ</b> 65.5 53.1 63.5 67.8	NIGHT LEQ 60.8 52.7 64.4	<b>LDN</b> 68.5 59.8 70.9	69.1 60.0 71.1			
		AUTOMOBILES MEDIUM TRUCK: HEAVY TRUCKS VEHICULAR NOIS	68.7 58.9 68.7 5E 71.9	Q         DAY LEQ           66.4         56.5           65.5         65.5           69.2         NOISE CON	EVEN LEQ 65.5 53.1 63.5 67.8	NIGHT LEQ 60.8 52.7 64.4 66.1	<b>LDN</b> 68.5 59.8 70.9 73.1	69.1 60.0 71.1			
		AUTOMOBILES MEDIUM TRUCK: HEAVY TRUCKS VEHICULAR NOIS	68.7 58.9 68.7 5E 71.9 5E LEVELS	Q         DAY LEQ           66.4         56.5           65.5         65.5	<b>EVEN LEQ</b> 65.5 53.1 63.5 67.8	NIGHT LEQ 60.8 52.7 64.4	<b>LDN</b> 68.5 59.8 70.9	69.1 60.0 71.1			

PROJECT: C	Gardena Land Use Plan a	and Zoning Am	endments								JOB #:	0462-2020-27
	Vermont Ave.										DATE:	17-May-23
	135th St. to Rosecrans A										ENGINEER:	C. Pincock
LOCATION:	Gardena, CA	S	CENARIO:	Existing								
					NOISE		ATA					
	ROADWA	AY CONDITIO						RECEIVER		ΔΤΔ		
	NOADWA	AT CONDITIC	5115					NECEIVEN				
ADT =	19,881					RECEIVER D	ISTANCE =		50			
SPEED =	40					DIST C/L TO			0			
PK HR % =	10					RECEIVER H			5			
NEAR LANE/FAR LANE							NCE FROM F	RECEIVER =	50			
ROAD ELEVATION =	0					PAD ELEVAT			0			
GRADE =	0					ROADWAY		LF ANGLE				
PK HR VOL =	1,988					NOADWAT		RT ANGLE	-90			
	1,566							DF ANGLE	90			
								DF ANGLE	180			
	SITE CON	DITIONS						WALL INF	OPMATIC			
	SITE CON	DITIONS						WALL INF	ORMATIC	JIN		
AUTOMOBILES	10							FT.				
MED TRUCKS					F-1F)	HTH WALL	0	FT				
	10		IARD SITE=.	10, SOFT SIT	E=15)	AMBIENT =						
HVY TRUCKS	10					BARRIER =	U	(0=WALL,1=	DERIVI)			
	VEHICLE N	VIX DATA						MISC. VE	HICLE INFO	0		
VEHICLE TYPE	DAY	EVE	NIGHT	DAILY			VEHICLE TY		HEIGHT	SLE DISTANCE	GRADF ADI	USTMENT
							AUTOMOBI					O STIME I
AUTOMOBILES	0.708	0.146	0.146	0.958					2.00	40.1		
MEDIUM TRUCKS	0.704	0.079	0.217	0.011			MEDIUM TR		4.00	40.0		
HEAVY TRUCKS	0.577	0.090	0.332	0.031			HEAVY TRU	CKS =	8.01	40.1	0.0	1
					NOISE	OUTPU	T DATA					
				NOISE IM	PACTS (N	/ITHOUT 1	OPO OR E	BARRIER S	HIELDING)	)		
									CNE	I		
			E	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL			
		AUTOMOBILE	E I	<b>PK HR LEQ</b> 69.7	<b>DAY LEQ</b> 67.4	<b>EVEN LEQ</b> 66.6	NIGHT LEQ 61.8	LDN 69.6	70.1			
		AUTOMOBILE	E I S CKS	<b>PK HR LEQ</b> 69.7 59.1	<b>DAY LEQ</b> 67.4 56.8	<b>EVEN LEQ</b> 66.6 53.4	NIGHT LEQ 61.8 53.0	<b>LDN</b> 69.6 60.0	70.1 60.3			
		AUTOMOBILE	E I S CKS	<b>PK HR LEQ</b> 69.7	<b>DAY LEQ</b> 67.4	<b>EVEN LEQ</b> 66.6	NIGHT LEQ 61.8	LDN 69.6	70.1			
		AUTOMOBILE	E I S CKS S	<b>PK HR LEQ</b> 69.7 59.1	<b>DAY LEQ</b> 67.4 56.8	<b>EVEN LEQ</b> 66.6 53.4	NIGHT LEQ 61.8 53.0	<b>LDN</b> 69.6 60.0	70.1 60.3			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCK	E I S CKS S	<b>PK HR LEQ</b> 69.7 59.1 68.6	<b>DAY LEQ</b> 67.4 56.8 65.4	<b>EVEN LEQ</b> 66.6 53.4 63.4	NIGHT LEQ 61.8 53.0 64.3	LDN 69.6 60.0 70.8	70.1 60.3 71.0			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCK	E I S CKS S	PK HR LEQ 69.7 59.1 68.6 72.4	<b>DAY LEQ</b> 67.4 56.8 65.4 69.8	<b>EVEN LEQ</b> 66.6 53.4 63.4 68.4	NIGHT LEQ 61.8 53.0 64.3	LDN 69.6 60.0 70.8	70.1 60.3 71.0			
		AUTOMOBILE: MEDIUM TRU HEAVY TRUCK VEHICULAR NO	E I S CKS S DISE	PK HR LEQ 69.7 59.1 68.6 72.4	DAY LEQ 67.4 56.8 65.4 69.8 NOISE CON	EVEN LEQ 66.6 53.4 63.4 68.4	NIGHT LEQ 61.8 53.0 64.3 66.4	LDN 69.6 60.0 70.8 73.5	70.1 60.3 71.0			
		AUTOMOBILE MEDIUM TRU HEAVY TRUCK VEHICULAR NO	E I S CKS S	PK HR LEQ 69.7 59.1 68.6 72.4	<b>DAY LEQ</b> 67.4 56.8 65.4 69.8	<b>EVEN LEQ</b> 66.6 53.4 63.4 68.4	NIGHT LEQ 61.8 53.0 64.3	LDN 69.6 60.0 70.8	70.1 60.3 71.0			