

NOISE AND VIBRATION IMPACT ANALYSIS

**TUSTIN LEGACY SPECIFIC PLAN AMENDMENT PROJECT
CITY OF TUSTIN, CALIFORNIA**



May 2024

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LIST OF ABBREVIATIONS AND ACRONYMS

| | |
|---------------|---|
| ADT | average daily trips |
| APNs | Assessor's Parcel Numbers |
| CalEEMod | California Emissions Estimator Model |
| CALGreen Code | California Green Building Standards Code |
| City | City of Tustin |
| CNEL | Community Noise Equivalent Level |
| County | County of Orange |
| dB | decibel |
| dBA | A-weighted decibel |
| EPA | United States Environmental Protection Agency |
| ft | foot/feet |
| FHWA | Federal Highway Administration |
| FTA | Federal Transit Administration |
| HE | Housing Element |
| HVAC | heating, ventilation, and air conditioning |
| I-5 | Interstate 5 |
| in/sec | inches per second |
| JWA | John Wayne Airport |
| L_{dn} | day-night average noise level |
| L_{eq} | equivalent continuous sound level |
| L_{max} | maximum instantaneous sound level |
| PAs | Planning Areas |
| PPV | peak particle velocity |
| project | Tustin Legacy Specific Plan Amendment Project |

| | |
|--------|-----------------------------------|
| RHNA | Regional Housing Needs Assessment |
| RMS | root-mean-square |
| SR-55 | State Route 55 |
| SR-261 | State Route 261 |
| SLA | Surplus Land Act |
| SPL | sound power level |
| sq ft | square foot/feet |
| STC | Sound Transmission Class |
| TLSP | Tustin Legacy Specific Plan |
| VdB | vibration velocity decibels |

INTRODUCTION

This noise and vibration impact analysis has been prepared to evaluate the potential noise and vibration impacts and reduction measures associated with the Tustin Legacy Specific Plan Amendment Project (project) in Tustin, California. This report is intended to satisfy the City of Tustin (City) requirement for a project-specific noise impact analysis by examining the impacts of the project site and evaluating noise reduction measures that the project may require.

PROJECT LOCATION

The City of Tustin is located in the central portion of Orange County and is surrounded by the cities of Irvine to the south; Santa Ana to the west; Orange and unincorporated Orange County to the north; and unincorporated Orange County to the east. Major freeways and highways within or bordering the City of Tustin are the Interstate 5 (I-5) freeway through the center, State Route 55 (SR-55) to the west, and State Route 261 (SR-261) to the east. The project location is shown in Figure 1.

The Tustin Legacy Specific Plan (TLSP) area encompasses approximately 1,606 acres which includes 1,511 acres in the southern Tustin and 95 acres in the northeastern Irvine. The TLSP area is generally bound by Red Hill Avenue to the west, Edinger Avenue to the north, Harvard Avenue to the east, and Barranca Parkway to the south. The local vicinity and the boundary of the TLSP area are shown in Figure 2.

The Modified Project area consists of three properties spread across two geographically defined areas, referred to as Neighborhoods in the TLSP: Neighborhood D and Neighborhood G.

- The portions of Neighborhood D that are identified within the Housing Element (HE) Sites Inventory include 84.73 acres of the total 190 acres of Neighborhood D North and 124 acres of Neighborhood D South. Parcels identified as housing sites within Neighborhood D North (HE Site 1A) included 39.87 acres, and D South (HE Site 1B) included at 44.86 acres. Neighborhood D North is generally bound by Valencia Avenue to the north, Tustin Ranch Road to the east, Warner Avenue to the south, and Armstrong Avenue to the west. Neighborhood D South is generally bound by Warner Avenue to the north, Tustin Ranch Road to the east, Barranca Parkway to the south, and Armstrong Avenue to the west.
- Neighborhood G is in the northeastern portion of the TLSP site, and the housing element inventory allocates approximately 50 acres of the 271 total acres as being available for residential development. Neighborhood G is generally bound by Edinger Avenue to the north, Jamboree Road to the east, Warner Avenue to the south, and Tustin Ranch Road to the west.

The TLSP Land Use Plan divides the TLSP area into a collection of neighborhoods, each with their own characteristics and set of functions to perform within the TLSP area. Housing Element Sites 1A and 1B are located in "Neighborhood D," and Site 2 is located in "Neighborhood G".

The TLSP area, including the Modified Project area, have a General Plan land use designation of Tustin Legacy Specific Plan (TLSP) and a zoning designation of SP1-Tustin Legacy.

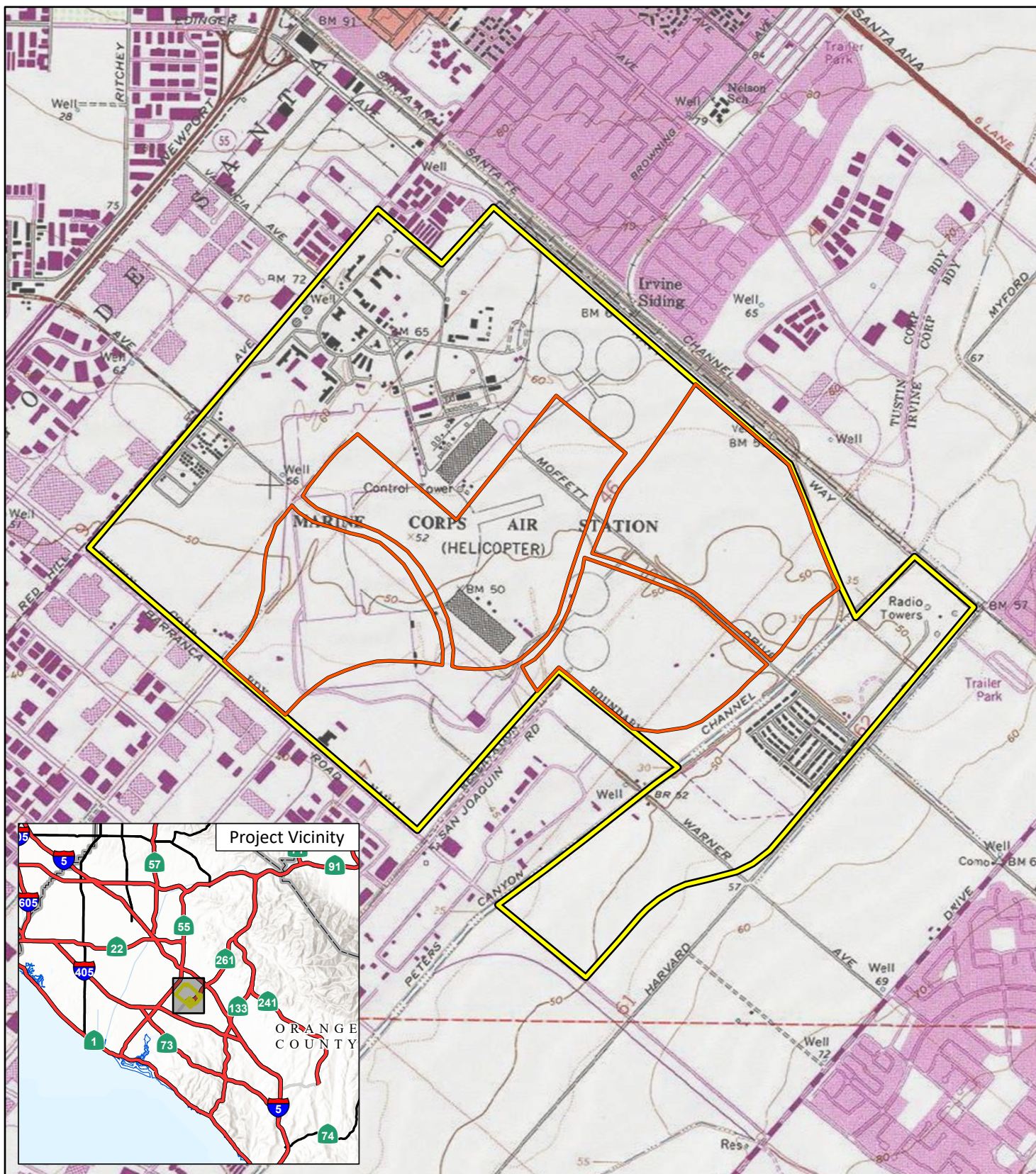


FIGURE 1

LSA

- TLSP Area
- Modified Project Site



0 1000 2000
FEET

SOURCE: USGS 7.5' Quad - Tustin (1981), CA

J:\ESL2201.74\GIS\Pro\Tustin Legacy Specific Plan Amendment\Tustin Legacy Specific Plan Amendment.aprx (6/21/2024)

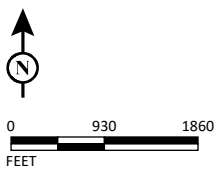
Tustin Legacy Specific Plan Amendment
Project Location



LSA

- TLSP Area
- Modified Project Site

FIGURE 2



SOURCE: Google Maps (2023)

J:\ESL2201.74\GIS\Pro\Tustin Legacy Specific Plan Amendment\Tustin Legacy Specific Plan Amendment.aprx (6/21/2024)

Tustin Legacy Specific Plan Amendment
Project Site

The Land Use Plan for TLSP has been further divided into 13 separate Planning Areas (PA) and numbered sub-planning areas. Neighborhood D includes PAs 8, 13, and 14, and Neighborhood G includes PA 15. The Land Use Plan for TLSP contains ten land use designations, including an overlay designation: Mixed-Use Transit, Mixed-Use Urban, Commercial, Commercial/Business, Residential, Park, Tustin Legacy Park Overlay, Transitional/Emergency Housing, Education Village, and Public Street Right-of-Way. The land use designations have been assigned a PA number. PAs are the basis for the use and development regulations found within the TLSP.

PROJECT DESCRIPTION

The proposed project consists of a Specific Plan Amendment to amend Neighborhoods D South, D North, and G to increase the allowed residential capacity, as shown in Table A, to be consistent with the 2021–2029 Housing Element Update. Changes between the Modified Project (the proposed Specific Plan Amendment) and the Approved Project (the current approved TLSP) are evaluated in this analysis.

The proposed upzoning would add a total of 855 additional residential units to the existing residential capacity of the Modified Project area. The Housing Element Update also included 1,356 buffer units that are intended to make up for any potential units that are not developed on the other Housing Element Update sites. Therefore, a total of 2,211 units have been incorporated into the residential caps of the TLSP Neighborhoods D North, D South, and G. The provision for the density bonus pursuant to the Surplus Land Act (SLA) is applicable to the TLSP area, and therefore, the application of the density bonus has been analyzed through the addition of 2,759 units. Together, the Housing Element Update Regional Housing Needs Allocation (RHNA) units, buffer units, and density bonus units total an additional 4,970 units.

Proposed Specific Plan Amendment

The proposed Specific Plan Amendment (or Modified Project) proposes increased allowed capacity for the future development of residential units within the Modified Project areas, Neighborhood D South, Neighborhood D North, and Neighborhood G, consistent with the approved 2021–2029 Housing Element of the City of Tustin General Plan. Proposed additional capacity would include the housing units allocated the TLSP to accommodate the City's RHNA, buffer units included as part of the Housing Element, and density bonus units available to developers under the SLA. Density bonus is applicable to all undeveloped residential land uses within the TLSP area, including the newly added 6th cycle RHNA units, as well as the remaining buildout capacity of the existing residential land uses within the TLSP area.

Neighborhood D North/Planning Area 8

Neighborhood D (PAs 8, 13, and 14) within the TLSP is currently designated as Mixed-Use Urban, which is envisioned as an active living, working, shopping, and recreational environment. According to the approved TLSP, Neighborhood D North is not designated to accommodate any residential.

Table A: Comparison of Approved Project to Modified Project

| Land Use | Unit | Neighborhood D South (PAs 13 & 14) | | Neighborhood D North (PA 8) | | Neighborhood G (PA 15) | | Approved Total | Proposed Total | Modified Project - Approved Project |
|--|-----------|---------------------------------------|---------------------|----------------------------------|----------------------------------|----------------------------------|---------------------|-------------------|-------------------|--|
| | | Approved Project ¹ | Modified Project | Approved Project ¹ | Modified Project ² | Approved Project ¹ | Modified Project | | | |
| Single Family Housing | DU | - | 117 | - | - | - | 692 | - | 809 | 809 |
| Multi-Family Housing | DU | 1,672 | 1,655 | - | 1,911 | 2,814 | 2,322 | 4,486 | 5,888 | 1,402 |
| Hotel | SF | 165,600 | 36,000 | - | 36,000 | - | - | 165,600 | 72,000 | (93,600) |
| Neighborhood Commercial | SF | - | - | - | - | 95,200 | - | 95,200 | - | (95,200) |
| Community Commercial | SF | 20,400 | 10,000 | 1,547,690 | 1,038,690 | - | 36,500 | 1,568,090 | 1,085,190 | (482,900) |
| Office | SF | 420,000 | 443,000 | - | 473,000 | - | 704,700 | 420,000 | 1,620,700 | 1,200,700 |
| Continuing Care - Senior Housing | SF | - | 117,000 | - | - | 1,000,000 | 354,000 | 1,000,000 | 471,000 | (529,000) |
| | DU | - | 521 | - | - | 404 | 270 | 404 | 791 | 387 |
| High School | STU | - | - | 1,784 | 1,784 | - | - | 1,784 | 1,784 | - |
| Park - Legacy Park (Passive) | AC | 6 | 6 | 54 | 54 | 31 | 31 | 91.0 | 91.0 | - |
| Park - Sports Park (Active) | AC | - | - | 45 | 45 | - | - | 45.0 | 45.0 | - |
| Total Residential | DU | 1,672 | 1,772 | - | 1,911 | 2,814 | 3,014 | 4,486 | 6,697 | 2,211 |
| Total Nonresidential | SF | 606,000 | 606,000 | 1,547,690 | 1,547,690 | 1,095,200 | 1,095,200 | 3,248,890 | 3,248,890 | - |
| <i>Density Bonus</i> | | - | 655 | - | 956 | - | 1,148 | - | 2,759 | 2,759 |
| Potential Residential Buildout w/ Density Bonus | | 1,672 | 2,427 | - | 2,867 | 2,814 | 4,162 | 4,486 | 9,456 | 4,970 |

Source: EPD Solutions, Inc. (2024).

Note :

¹ Approved Project refers to the 2017 TLSP.

² Neighborhood D North includes 1,356 buffer units.

AC = acre

DU = dwelling unit

PA = Planning Area

SF = square feet

STU = students

TLSP = Tustin Legacy Specific Plan

The 39.87-acre portion of Neighborhood D North identified for increased housing capacity within the 2021–2029 Housing Element include Assessor’s Parcel Numbers (APNs) 430-381-38, -41, -91, and -95. The Modified Project would add 555 dwelling units to Neighborhood D buildout capacity, consistent with the adopted Housing Element.

Housing units added to the TLSP area to accommodate the City’s RHNA are considered shortfall sites subject to the requirements of Government Code Section 65583.2(h). In order to comply with the requirements of Government Code Section 65583.2(h), the City has identified a portion of Neighborhood D North (APNs 430-381-41 and 430-381-91) to be zoned as exclusively residential land use. These parcels would accommodate a minimum of 203 units. Therefore, the project would include, as part of the Specific Plan Amendment, the designation of APNs 430-381-41 and 430-381-91 as exclusively residential land use. The remaining parcels, 430-381-38 and -95, would be anticipated to accommodate 352 dwelling units (555 total units).

In addition to the 555 units required for the City to meet their RHNA shortfall, 1,356 buffer units were allocated to Neighborhood D North. Buffer units were incorporated as contingency in the event that the City becomes unable to meet their RHNA during the 2021–2029 Housing Element period. These units have been incorporated into the new proposed housing capacity under the TLSP Specific Plan Amendment, providing a total residential maximum buildout of 1,911 units (555 units + 1,356 buffer units).

Neighborhood D South/Planning Areas 13 and 14

Neighborhood D South (PAs 13 and 14) is currently designated as Mixed-Use Urban, which is envisioned as an active living, working, shopping, and recreational environment. According to the approved TLSP, Neighborhood D South is designated to accommodate 1,672 residential units.

The portion of Neighborhood D South identified for increased housing capacity within the 2021–2029 Housing Element include South Brookfield Tract 18197, Lot 2 and Lots 5–13. The 2021–2029 Housing Element added 100 units to Neighborhood D South, increasing total residential capacity of Neighborhood D South from 1,672 to 1,772.

Neighborhood G/Planning Area 15

Neighborhood G (PA 15) within the TLSP is currently designated as Mixed-Use Urban, which is envisioned as an active living, working, shopping, and recreational environment, mixed-use transit-oriented development and residential uses. A maximum of 2,814 dwelling units and 1,095,200 square feet (sq ft) are the identified maximum capacities in Neighborhood G. The Mixed-Use Transit designation provides flexibility for residential, office, commercial retail, and commercial service uses in a vertical or horizontal configuration. This Planning Area also contains a portion of the Tustin Legacy Park Overlay.

The portion of Neighborhood G identified for increased housing capacity within the 2021–2029 Housing Element includes APNs 430-381-27 to -29, 430-391-03, -27, -28, -56, and -59 to -64. The Modified Project would add 200 dwelling units to the Neighborhood G buildout, increasing the capacity from 2,814 to 3,014 residential units.

Nonresidential Uses of TLSP

In addition to the proposed changes above, the TLSP would be amended to reflect updates to nonresidential development by land use type. These changes have been made due to a series of factors, including entitled/built projects, forecasted market conditions, and anticipated future development. Overall, the changes amongst the various nonresidential land uses would result in a balanced condition (see Table A).

Specific Plan Buildout

Individual sites, or neighborhoods, within the TLSP do not have minimum or maximum densities; however, there is a development cap on the number of housing units in each of the neighborhoods.

The current 2017 TLSP (or Approved Project) identifies a total capacity of 6,813 residential units and 9,532,419 sq ft of nonresidential capacity within the TLSP area. The proposed TLSP identifies a total capacity of 9,024 residential units and 9,532,419 sq ft of nonresidential capacity within the TLSP area (see Table A). More specifically, the Approved Project identifies a total of 4,486 residential units and 3,248,890 sq ft of nonresidential capacity within the Modified Project area. The proposed Modified Project identifies a total capacity of 6,697 residential units and 3,249,500 sq ft of nonresidential capacity within the TLSP area.

While the proposed Specific Plan Amendment would increase the residential capacity by 2,211 units, the provision for State density bonus is applicable to the Modified Project site. The proposed allowed residential capacity increase of 2,211 and the potential of 2,759 density bonus units, for a total of 4,970 units, will be analyzed as part of the project.

Changes in residential and nonresidential development capacity between the Approved Project and proposed Modified Project are captured in Table A. Although no development is proposed as part of the project, for analysis purposes, the project buildout year is assumed to be 2045. Additionally, this analysis assumes that project construction activities could occur anytime beginning January 2025. Construction activities would include site preparation, grading, building construction, paving, and architectural coatings.

Buildout of the Approved Project would generate approximately 100,611 average daily trips (ADT)¹ while buildout of the Modified Project would generate approximately 116,289 ADT, resulting in an increase in 15,678 ADT. Future development would be constructed in compliance with the version of the California Title 24 Energy Efficiency Standards (Title 24 energy standards) and the Title 24 California Green Building Standards Code (CALGreen Code) in effect at the time building permit applications are submitted.

¹ EPD Solutions, Inc. 2024. *Tustin Legacy Specific Plan Trip Generation*.

EXISTING LAND USES SURROUNDING THE MODIFIED PROJECT AREA

The project site is surrounded primarily by residential, commercial, and office uses. The areas adjacent to the project site include the following uses:

- **Northwest:** Business commercial, warehousing, The Bowery mixed-use development, and office uses opposite of Red Hill Avenue;
- **Northeast:** Metrolink train tracks/station Como Channel (stormwater), Tustin Meadows & Peppertree Residential Communities, warehousing and office uses opposite Edinger Avenue;
- **Southwest:** Restaurants, retail, office, and storage uses opposite Barranca Parkway;
- **Southeast:** Tustin Field Residential Community, OC Succulents Nursery, Creekside Education Center, parkland, & Columbus Grove Residential Community;
- **South:** Residential, warehousing, and commercial uses.

The closest sensitive receptor to the project site is The Bowery mixed-use development located approximately 140 ft west of the TLSP boundary. Additionally, residences could be within 50 ft of the perimeter of the modified project site.

NOISE AND VIBRATION FUNDAMENTALS

CHARACTERISTICS OF SOUND

Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect the ability to hear. Pitch is the number of complete vibrations, or cycles per second, of a sound wave, which results in the tone's range from high to low. Loudness is the strength of a sound, and it describes a noisy or quiet environment; it is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves combined with the reception characteristics of the human ear. Sound intensity is the average rate of sound energy transmitted through a unit area perpendicular to the direction in which the sound waves are traveling. This characteristic of sound can be precisely measured with instruments. The analysis of a project defines the noise environment of the project area in terms of sound intensity and its effect on adjacent sensitive land uses.

MEASUREMENT OF SOUND

Sound intensity is measured with the A-weighted decibel (dBA) scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound, similar to the human ear's de-emphasis of these frequencies. Decibels (dB), unlike the linear scale (e.g., inches or pounds), are measured on a logarithmic scale representing points on a sharply rising curve.

For example, 10 dB is 10 times more intense than 0 dB, 20 dB is 100 times more intense than 0 dB, and 30 dB is 1,000 times more intense than 0 dB. Thirty decibels (30 dB) represents 1,000 times as much acoustic energy as 0 dB. The decibel scale increases as the square of the change, representing the sound pressure energy. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10 dB increase in sound level is perceived by the human ear as only a doubling of the sound's loudness. Ambient sounds generally range from 30 dB (very quiet) to 100 dB (very loud).

Sound levels are generated from a source, and their decibel level decreases as the distance from that source increases. Sound levels dissipate exponentially with distance from their noise sources. For a single point source, sound levels decrease approximately 6 dB for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by stationary equipment. If noise is produced by a line source (e.g., highway traffic or railroad operations), the sound decreases 3 dB for each doubling of distance in a hard site environment. Line source sound levels decrease 4.5 dB for each doubling of distance in a relatively flat environment with absorptive vegetation.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. The equivalent continuous sound level (L_{eq}) is the total sound energy of time-varying noise over a sample period. However, the

predominant rating scales for human communities in the State of California are the L_{eq} and Community Noise Equivalent Level (CNEL) or the day-night average noise level (L_{dn}) based on A-weighted decibels. CNEL is the time-weighted average noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noises occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale but without the adjustment for events occurring during the relaxation. CNEL and L_{dn} are within 1 dBA of each other and are normally interchangeable. The City of Tustin uses the CNEL noise scale for long-term traffic noise impact assessment.

Other noise rating scales of importance when assessing the annoyance factor include the maximum instantaneous noise level (L_{max}), which is the highest sound level that occurs during a stated time period. The noise environments discussed in this analysis for short-term noise impacts are specified in terms of maximum levels denoted by L_{max} , which reflects peak operating conditions and addresses the annoying aspects of intermittent noise. It is often used together with another noise scale, or noise standards in terms of percentile noise levels, in noise ordinances for enforcement purposes. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same.

Noise impacts can be described in three categories. The first category includes audible impacts, which are increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3 dB or greater because this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1 dB and 3 dB. This range of noise levels has been found to be noticeable only in laboratory environments. The last category includes changes in noise levels of less than 1 dB, which are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant.

Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to sound levels higher than 85 dBA. Exposure to high sound levels affects the entire system, with prolonged sound exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. In comparison, extended periods of sound exposure above 90 dBA would result in permanent cell damage. When the sound level reaches 120 dBA, a tickling sensation occurs in the human ear, even with short-term exposure. This level of sound is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by a feeling of pain in the ear (i.e., the threshold of pain). A sound level of 160–165 dBA will result in dizziness or a loss of equilibrium. The ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying, less developed areas.

Table B lists definitions of acoustical terms, and Table C shows common sound levels and their sources.

Table B: Definitions of Acoustical Terms

| Term | Definitions |
|---|--|
| Decibel, dB | A unit of sound measurement that denotes the ratio between two quantities that are proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio. |
| Frequency, Hz | Of a function periodic in time, the number of times that the quantity repeats itself in 1 second (i.e., the number of cycles per second). |
| A-Weighted Sound Level, dBA | The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. (All sound levels in this report are A-weighted unless reported otherwise.) |
| L ₀₁ , L ₁₀ , L ₅₀ , L ₉₀ | The fast A-weighted noise levels that are equaled or exceeded by a fluctuating sound level 1%, 10%, 50%, and 90% of a stated time period, respectively. |
| Equivalent Continuous Noise Level, L _{eq} | The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time-varying sound. |
| Community Noise Equivalent Level, CNEL | The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 dBA to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 dBA to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m. |
| Day/Night Noise Level, L _{dn} | The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 dBA to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m. |
| L _{max} , L _{min} | The maximum and minimum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging. |
| Ambient Noise Level | The all-encompassing noise associated with a given environment at a specified time. Usually a composite of sound from many sources from many directions, near and far; no particular sound is dominant. |
| Intrusive | The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, time of occurrence, and tonal or informational content, as well as the prevailing ambient noise level. |

Sources: (1) *Technical Noise Supplement* (Caltrans 2013); (2) *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
Caltrans = California Department of Transportation
FTA = Federal Transit Administration

Table C: Common Sound Levels and Their Noise Sources

| Noise Source | A-Weighted Sound Level in Decibels | Noise Environments | Subjective Evaluations |
|--|------------------------------------|----------------------|------------------------|
| Near Jet Engine | 140 | Deafening | 128 times as loud |
| Civil Defense Siren | 130 | Threshold of Pain | 64 times as loud |
| Hard Rock Band | 120 | Threshold of Feeling | 32 times as loud |
| Accelerating Motorcycle at a Few Feet Away | 110 | Very Loud | 16 times as loud |
| Pile Driver; Noisy Urban Street/Heavy City Traffic | 100 | Very Loud | 8 times as loud |
| Ambulance Siren; Food Blender | 95 | Very Loud | — |
| Garbage Disposal | 90 | Very Loud | 4 times as loud |
| Freight Cars; Living Room Music | 85 | Loud | — |
| Pneumatic Drill; Vacuum Cleaner | 80 | Loud | 2 times as loud |
| Busy Restaurant | 75 | Moderately Loud | — |
| Near Freeway Auto Traffic | 70 | Moderately Loud | Reference level |
| Average Office | 60 | Quiet | One-half as loud |
| Suburban Street | 55 | Quiet | — |
| Light Traffic; Soft Radio Music in Apartment | 50 | Quiet | One-quarter as loud |
| Large Transformer | 45 | Quiet | — |
| Average Residence without Stereo Playing | 40 | Faint | One-eighth as loud |
| Soft Whisper | 30 | Faint | — |
| Rustling Leaves | 20 | Very Faint | — |
| Human Breathing | 10 | Very Faint | Threshold of Hearing |
| — | 0 | Very Faint | — |

Source: Compiled by LSA (2021).

FUNDAMENTALS OF VIBRATION

Vibration refers to ground-borne noise and perceptible motion. Ground-borne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may not be discernible, but without the effects associated with the shaking of a building there is less adverse reaction. Vibration energy propagates from a source through intervening soil and rock layers to the foundations of nearby buildings. The vibration then propagates from the foundation throughout the remainder of the structure. Building vibration may be perceived by occupants as the motion of building surfaces, the rattling of items sitting on shelves or hanging on walls, or a low-frequency rumbling noise. The rumbling noise is caused by the vibration of walls, floors, and ceilings that radiate sound waves. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by 10 dB or less. This is an order of magnitude below the damage threshold for normal buildings.

Typical sources of ground-borne vibration are construction activities (e.g., blasting, pile-driving, and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough roads. Problems with both ground-borne vibration and noise from these sources are usually localized to areas within approximately 100 ft from the vibration source, although there are examples of ground-borne vibration causing interference out to distances greater than 200 ft (FTA 2018). When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible. It is assumed for most projects that the roadway surface will be smooth enough that ground-borne

vibration from street traffic will not exceed the impact criteria; however, construction of the project could result in ground-borne vibration that may be perceptible and annoying.

Ground-borne noise is not likely to be a problem because noise arriving via the normal airborne path will usually be greater than ground-borne noise.

Ground-borne vibration has the potential to disturb people and damage buildings. Although it is very rare for train-induced ground-borne vibration to cause even cosmetic building damage, it is not uncommon for construction processes such as blasting and pile-driving to cause vibration of sufficient amplitudes to damage nearby buildings (FTA 2018). Ground-borne vibration is usually measured in terms of vibration velocity, either the root-mean-square (RMS) velocity or peak particle velocity (PPV). The RMS is best for characterizing human response to building vibration, and PPV is used to characterize the potential for damage. Decibel notation acts to compress the range of numbers required to describe vibration. Vibration velocity level in decibels is defined as

$$L_v = 20 \log_{10} [V/V_{ref}]$$

where “ L_v ” is the vibration velocity in decibels (VdB), “ V ” is the RMS velocity amplitude, and “ V_{ref} ” is the reference velocity amplitude, or 1×10^{-6} inches/second (in/sec) used in the United States.

REGULATORY SETTING

APPLICABLE NOISE STANDARDS

The applicable noise standards governing the project site include the criteria in the City's Noise Element of the General Plan (Noise Element) and the City of Tustin Municipal Code and City of Irvine Municipal Code.

California Code of Regulations

Interior noise levels for residential habitable rooms are regulated by Title 24 of the California Code of Regulations California Noise Insulation Standards. Title 24, Chapter 12, Section 1206.4, of the 2019 California Building Code requires that interior noise levels attributable to exterior sources not exceed 45 CNEL in any habitable room. A habitable room is a room used for living, sleeping, eating, or cooking. Bathrooms, closets, hallways, utility spaces, and similar areas are not considered habitable rooms for this regulation (Title 24 California Code of Regulations, Chapter 12, Section 1206.4).

City of Tustin

Noise Element of the General Plan

The City's General Plan Noise Element (City of Tustin 2012) has established exterior and interior noise standards as shown in Table D. These noise standards apply to approved land uses for which mitigation may be required to achieve the City's noise standards. As shown in Table D, the City has a noise standard of 65 dBA CNEL for exterior habitable areas and a 45 dBA CNEL noise standard for interior habitable areas for residential land uses.

Table D: City of Tustin Interior and Exterior Noise Standards

| Land Use | Noise Standards ¹ | |
|--|------------------------------|--|
| | Interior ^{2,3} | Exterior |
| Residential: Single-family, multifamily, duplex, mobile home | 45 dBA CNEL | 65 dBA CNEL ⁴ |
| Residential: Transient lodging, hotels, motels, nursing homes, hospitals | 45 dBA CNEL | 65 dBA CNEL ⁴ |
| Private offices, church sanctuaries, libraries, board rooms, conference rooms, theaters, auditoriums, concert halls, meeting rooms, etc. | 45 dBA L _{eq} (12) | -- |
| Schools | 45 dBA L _{eq} (12) | 67 dBA L _{eq} (12) ⁵ |
| General offices, reception, clerical, etc. | 50 dBA L _{eq} (12) | - |
| Bank lobby, retail store, restaurant, typing pool, etc. | 55 dBA L _{eq} (12) | - |
| Manufacturing, kitchen, warehousing, etc. | 65 dBA L _{eq} (12) | - |
| Parks, playgrounds | - | 65 dBA CNEL ⁵ |
| Golf courses, outdoor spectator sports, amusement parks | - | 70 dBA CNEL |

Source: Noise Element, Tustin General Plan (City of Tustin 2012).

¹ CNEL: Community Noise Equivalent Level. L_{eq}(12): The A-weighted equivalent sound level averaged over a 12-hour period (usually the hours of operation).

² Noise standard with windows closed. Mechanical ventilation shall be provided per UBC requirements to provide a habitable environment.

³ Indoor environment excluding bathrooms, toilets, closets, and corridors.

⁴ Outdoor environment limited to rear yard of single-family homes, multifamily patios, and balconies (with a depth of 6 feet or more) and common recreation areas.

⁵ Outdoor environment limited to playground areas, picnic areas, and other areas of frequent human use.

dBA = A-weighted decibels

UBC = Uniform Building Code

Municipal Code

Article 4, Chapter 6 of the City’s Municipal Code (City of Tustin 2023) establishes the maximum permissible noise level that may intrude into a neighbor’s property. The Noise Ordinance establishes noise level standards for various land use categories affected by stationary noise sources. Land use categories in the City are defined by five noise zones, as listed below. Table E provides the City’s maximum noise standard based on the noise zone, the location of the noise (exterior/interior), and the time period.

Noise Zone 1: All residential properties

Noise Zone 2: All commercial properties

Noise Zone 3: All industrial properties

Noise Zone 4: All special properties such as hospitals, convalescent homes, public and institutional schools, libraries and churches

Noise Zone 5: All mixed-use properties

Table E: City of Tustin Maximum Noise Level Standards

| Noise Zone | Exterior/ Interior | Time Period | L ₅₀ (30 mins) | L ₂₅ (15 mins) | L ₈ (5 mins) | L ₂ (1 min) | L _{max} (Anytime) |
|------------|-----------------------|---------------------|------------------------------|------------------------------|----------------------------|---------------------------|-------------------------------|
| 1 | Exterior | 7:00 AM to 10:00 PM | 55 | 60 | 65 | 70 | 75 |
| | | 10:00 PM to 7:00 AM | 50 | 55 | 60 | 65 | 70 |
| | Interior | 7:00 AM to 10:00 PM | — | — | 55 | 60 | 65 |
| | | 10:00 PM to 7:00 AM | — | — | 45 | 50 | 55 |
| 2 | Exterior | Anytime | 60 | 65 | 70 | 75 | 80 |
| 3 | Exterior | Anytime | 70 | 75 | 80 | 85 | 90 |
| 4 | Exterior | Anytime | 55 | 60 | 65 | 70 | 75 |
| 5 | Exterior | Anytime | 60 | 65 | 70 | 75 | 80 |

Source: Municipal Code (City of Tustin 2023).

Note: It shall be unlawful for any person at any location within the incorporated area of the City of Tustin to create any noise or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, when the foregoing causes the noise level, when measured on any other property to exceed. In the event the alleged offensive noise consists of impact noise, simple tone, speech, music, or any combination thereof, each of the above noise levels shall be reduced by 5 dBA. In the event the ambient noise level exceeds any of the first four noise limit categories, the cumulate period applicable to said category shall be increased to reflect said ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

dBA = A-weighted decibels

L_{max} = maximum instantaneous noise level

min/mins = minute/minutes

Article 4, Chapter 6 of the City’s Municipal Code limits the erection, demolition, alternation, repair, excavation, grading, paving or construction of any building or site to between the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday and 9:00 a.m. and 5:00 p.m. on Saturdays. Construction is prohibited on Sundays and City-observed federal holidays. Trucks, vehicles and equipment that are making or are involved with material deliveries, loading or transfer of materials, equipment service, maintenance of any devices or appurtenances to any construction project in Tustin shall not be operated on or adjacent to said sites outside of the approved hours for construction activity.

In addition, construction activities may be permitted outside of those limitations in the case of urgent necessity or upon a finding that such approval will not adversely impact adjacent properties and the health, safety and welfare of the community if a temporary exception is granted in writing

by the Building Official for private property or by the Director of Public Works for public properties or their authorized representatives. All temporary waiver requests shall be made in writing and shall include the specific times, dates, and locations requested and a description of the type of activity that is proposed. In granting a temporary exception, conditions may be imposed on construction activities to protect the health, safety and welfare of the community. Any approval granted may be summarily revoked by the Building Official or Director of Public Works at the sole discretion of each official.

City of Irvine

Municipal Code. Section 6-8-204 of the City's Municipal Code (City of Irvine 2015) establishes the maximum permissible noise level that may intrude into a neighbor's property. The Noise Ordinance (adopted in 1975 and revised in 2015) establishes noise level standards for various land use categories affected by stationary noise sources. Land use categories in the City are defined in four noise zones, as listed below. Table F provides the City's maximum noise standard based on the noise zone, the location of the noise (exterior/interior), and the time period. As shown in Table F, the City's noise standards do not apply to multifamily residence private balconies (City of Irvine 2015).

1. **Noise Zone 1:** All hospitals, libraries, churches, schools, and residential properties
2. **Noise Zone 2:** All professional office and public institutional properties
3. **Noise Zone 3:** All commercial properties, excluding professional office properties
4. **Noise Zone 4:** All industrial properties

Table F: City of Irvine Maximum Noise Level Standards

| Noise Zone | Exterior/ Interior | Time Period | L ₅₀ (30 mins) | L ₂₅ (15 mins) | L ₈ (5 mins) | L ₂ (1 min) | L _{max} (Anytime) |
|------------|-----------------------|---------------------|------------------------------|------------------------------|----------------------------|---------------------------|-------------------------------|
| 1 | Exterior | 7:00 AM to 10:00 PM | 55 | 60 | 65 ¹ | 70 | 75 |
| | | 10:00 PM to 7:00 AM | 50 | 55 | 60 | 65 ¹ | 70 |
| | Interior | 7:00 AM to 10:00 PM | — | — | 55 | 60 | 65 |
| | | 10:00 PM to 7:00 AM | — | — | 45 | 50 | 55 |
| 2 | Exterior | Anytime | 55 | 60 | 65 | 70 | 75 |
| | Interior | Anytime | — | — | 55 | 60 | 65 |
| 3 | Exterior | Anytime | 60 | 65 | 70 | 75 | 80 |
| | Interior | Anytime | — | — | 55 | 60 | 65 |
| 4 | Exterior | Anytime | 70 | 75 | 80 | 85 | 90 |
| | Interior | Anytime | — | — | 55 | 60 | 65 |

Source: City of Irvine Municipal Code (City of Irvine 2015).

Note: It shall be unlawful for any person at any location within Irvine to create any noise or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person which causes the noise level, when measured on any property within designated noise zones either within or without Irvine, to exceed the applicable noise standard. Each of the noise standards specified above shall be reduced by 5 dBA for impact, or predominant tone noise or for noises consisting of speech or music. In the event the noise source and the affected property are within different noise zones, the noise standards of the affected property shall apply.

¹ This standard does not apply to multifamily residence private balconies. Multifamily developments with balconies that do not meet the 65 dBA CNEL criterion are required to provide occupancy disclosure notices to all future tenants regarding potential noise impacts.

City = City of Irvine

CNEL = Community Noise Equivalent Level

dBA = A-weighted decibel

L_{max} = maximum instantaneous noise level

min/mins = minute/minutes

The City's Municipal Code Noise Ordinance has not established any upper limits for construction noise because construction noise is temporary and will stop after project construction is complete. Section 6-8-205a of the City's Municipal Code Noise Ordinance regulates the timing of construction activities and includes special provisions for sensitive land uses. Construction activities shall occur only between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, and between 9:00 a.m. and 6:00 p.m. on Saturday. No construction shall be permitted outside of these hours or on Sundays and federal holidays, except for Columbus Day, unless a temporary waiver is granted by the Chief Building Official or his/her authorized representative. Trucks, vehicles, and equipment that are making or are involved with material deliveries, loading or transferring materials, equipment service, or maintenance of any devices or appurtenances for or within any construction project in the city shall not be operated or driven on City streets outside of these hours or on Sundays and federal holidays unless the City grants a temporary waiver. Any waiver granted shall take into consideration the potential impact on the community. No construction activity will be permitted outside of these hours except in emergencies, including maintenance work on the City rights-of-way that might be required.

Federal Transit Administration

Because the City does not have construction noise level limits, construction noise was assessed using criteria from the *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018). Table G shows the FTA's General Assessment Construction Noise Criteria based on the composite noise levels per construction phase.

Table G: General Assessment Construction Noise Criteria

| Land Use | Daytime 1-hour L_{eq} (dBA) | Nighttime 1-hour L_{eq} (dBA) |
|-------------|-------------------------------|---------------------------------|
| Residential | 90 | 80 |
| Commercial | 100 | 100 |
| Industrial | 100 | 100 |

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).

dBA = A-weighted decibels

L_{eq} = equivalent continuous sound level

APPLICABLE VIBRATION STANDARDS

Federal Transit Administration

Vibration standards included in the Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment Manual* (2018) (FTA Manual) are used in this analysis for ground-borne vibration impacts on human annoyance. The criteria for environmental impact from ground-borne vibration and noise are based on the maximum levels for a single event. Table H provides the criteria for assessing the potential for interference or annoyance from vibration levels in a building.

Table I lists the potential vibration building damage criteria associated with construction activities, as suggested in the FTA Manual. FTA guidelines show that a vibration level of up to 0.5 in/sec in PPV is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster), and would not result in any construction vibration damage. For non-engineered timber and masonry buildings, the construction building vibration damage criterion is 0.2 in/sec in PPV.

Table H: Interpretation of Vibration Criteria for Detailed Analysis

| Land Use | Max L _v (VdB) ¹ | Description of Use |
|---------------------------------------|--|---|
| Workshop | 90 | Vibration that is distinctly felt. Appropriate for workshops and similar areas not as sensitive to vibration. |
| Office | 84 | Vibration that can be felt. Appropriate for offices and similar areas not as sensitive to vibration. |
| Residential Day | 78 | Vibration that is barely felt. Adequate for computer equipment and low-power optical microscopes (up to 20×). |
| Residential Night and Operating Rooms | 72 | Vibration is not felt, but ground-borne noise may be audible inside quiet rooms. Suitable for medium-power microscopes (100×) and other equipment of low sensitivity. |

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).

¹ As measured in 1/3-Octave bands of frequency over the frequency range 8 to 80 Hertz.

FTA = Federal Transit Administration

Max = maximum

L_v = velocity in decibels

VdB = vibration velocity decibels

Table I: Construction Vibration Damage Criteria

| Building Category | PPV (in/sec) |
|---|--------------|
| Reinforced concrete, steel, or timber (no plaster) | 0.50 |
| Engineered concrete and masonry (no plaster) | 0.30 |
| Non-engineered timber and masonry buildings | 0.20 |
| Buildings extremely susceptible to vibration damage | 0.12 |

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).

FTA = Federal Transit Administration

PPV = peak particle velocity

in/sec = inch/inches per second

OVERVIEW OF THE EXISTING NOISE ENVIRONMENT

The primary existing noise sources in the project area are transportation facilities such as Barranca Parkway, Red Hill Avenue, Park Avenue, intermittent train noise, and surrounding commercial and office uses.

AMBIENT NOISE MEASUREMENTS

Long-Term Noise Measurements

Long-term (24-hour) noise level measurements were conducted on February 8 and February 9, 2024, using three (3) Larson Davis Spark 706RC Dosimeters. Table J provides a summary of the measured hourly noise levels and calculated CNEL level from the long-term noise level measurements. As shown in Table J, the calculated CNEL levels range from 69.2 dBA CNEL to 73.2 dBA CNEL. Hourly noise levels at surrounding sensitive uses are as low as 54.3 dBA L_{eq} during nighttime hours and 64.7 dBA L_{eq} during daytime hours. Long-term noise monitoring survey sheets are provided in Appendix A. Figure 3 shows the long-term monitoring locations.

Table J: Long-Term 24-Hour Ambient Noise Monitoring Results

| Location | | Daytime Noise Levels ¹ (dBA L_{eq}) | Evening Noise Levels ² (dBA L_{eq}) | Nighttime Noise Levels ³ (dBA L_{eq}) | Daily Noise Levels (dBA CNEL) |
|----------|---|--|--|--|----------------------------------|
| LT-1 | Tustin Legacy Park. Along the western corner of the project site near the Barranca Parkway and Red Hill Avenue intersection, on a light pole approximately 110 ft away from the Red Hill Avenue centerline. | 66.1-71.1 | 65.1-65.7 | 56.5-64.7 | 70.2 |
| LT-2 | 2810 Warner Avenue, Irvine. Located near the western façade of an apartment complex (Park Apartments Irvine), on a tree approximately 120 ft away from the Park Avenue centerline. | 65.7-69.4 | 61.7-63.9 | 54.3-66.5 | 69.2 |
| LT-3 | 117 Liberty Street, Tustin. Near the northern façade of a townhome, on a tree approximately 70 ft away from the rail tracks centerline. | 64.7-71.5 | 65.8-71.3 | 64.9-67.3 | 73.2 |

Source: Compiled by LSA (2024).

Note: Noise measurements were conducted from February 8 and February 9, 2024, starting at 12:00 p.m.

¹ Daytime Noise Levels = noise levels during the hours from 7:00 a.m. to 7:00 p.m.

² Evening Noise Levels = noise levels during the hours from 7:00 p.m. to 10:00 p.m.

³ Nighttime Noise Levels = noise levels during the hours from 10:00 p.m. to 7:00 a.m.

dBA = A-weighted decibels

ft = foot/feet

CNEL = Community Noise Equivalent Level

L_{eq} = equivalent continuous sound level



FIGURE 3

LSA

- TLSP Area
- Modified Project Site
- Long-term Noise Monitoring Location



0 975 1950
FEET

SOURCE: Google Maps (2023)

J:\ESL2201.74\GIS\Pro\Tustin Legacy Specific Plan Amendment\Tustin Legacy Specific Plan Amendment.aprx (6/21/2024)

Tustin Legacy Specific Plan Amendment
Noise Monitoring Locations

EXISTING AIRCRAFT NOISE

Aircraft flyovers may be audible on the project site due to aircraft activity in the vicinity. The nearest airport to the project is John Wayne Airport (JWA), a commercial airport 2.1 miles to the southwest. The project site is outside the 60 dBA CNEL noise contour of JWA based on the JWA Airport 2022 Annual Community Noise Equivalent Level Contours (County of Orange 2022). Additionally, there are no helipads or private airstrips within 2 miles from the TLSP area. Due to the distance of the project site from the nearest airport, impacts related to aircraft operations are not further discussed in this analysis.

EXISTING RAIL ACTIVITY NOISE

As shown in Table J, above, the exterior noise level at the LT-3 location, representing the northeastern section of the project site, was recorded at 70.2 dBA CNEL. Once site plans are available, a Final Acoustical Report would be required to confirm any proposed exterior noise sensitive areas would experience noise levels less than 65 dBA CNEL and to identify any noise reduction features to the exterior living areas, if necessary.

PROJECT IMPACTS

SHORT-TERM CONSTRUCTION NOISE IMPACTS

Two types of short-term noise impacts could occur during the construction of the proposed project. First, construction crew commutes 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. Although there would be a relatively high single-event noise-exposure potential causing intermittent noise nuisance (passing trucks at 50 ft would generate up to 84 dBA L_{max}), the effect on longer-term ambient noise levels would be small when compared to existing daily traffic volumes on Jamboree Road, Barranca Parkway, or Red Hill Avenue. The results of the California Emissions Estimator Model (CalEEMod) for the proposed project indicate that during the building construction phase, an additional 12,514 vehicles, consisting of worker and hauling trips, would be added to the roadways adjacent to the project site. Because the existing traffic volume on Jamboree Road, Barranca Parkway, or Red Hill Avenue is considerably more than 12,514, construction-related vehicle trips would not approach existing daily traffic volumes and traffic noise would not increase by 3 dBA CNEL. Because construction-related vehicle trips would not approach existing daily traffic volumes, traffic noise would not increase by 3 dBA CNEL. A noise level increase of less than 3 dBA would not be perceptible to the human ear in an outdoor environment. Therefore, short-term, construction-related impacts associated with worker commute and equipment transport to the project site would be less than significant.

The second type of short-term noise impact is related to noise generated during site preparation, excavation, grading, and building erection on the project site. Construction is completed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the site and, therefore, the noise levels surrounding the site as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table K lists typical construction equipment noise levels recommended for noise impact assessments, based on a distance of 50 ft between the equipment and a noise receptor, taken from the Federal Highway Administration's (FHWA) *Roadway Construction Noise Model* (FHWA 2006).

In addition to the reference maximum noise level, the usage factor provided in Table K is used to calculate the hourly noise level impact for each piece of equipment based on the following equation:

$$L_{eq}(equip) = E.L. + 10 \log(U.F.) - 20 \log\left(\frac{D}{50}\right)$$

where: $L_{eq}(equip)$ = L_{eq} at a receiver resulting from the operation of a single piece of equipment over a specified time period.

E.L. = noise emission level of the particular piece of equipment at a reference distance of 50 ft.

U.F. = usage factor that accounts for the fraction of time that the equipment is in use over the specified period of time.

D = distance from the receiver to the piece of equipment.

Table K: Typical Construction Equipment Noise Levels

| Equipment Description | Acoustical Usage Factor (%) ¹ | Maximum Noise Level (L _{max}) at 50 Feet ² |
|-----------------------|--|---|
| Auger Drill Rig | 20 | 84 |
| Backhoes | 40 | 80 |
| Compactor (ground) | 20 | 80 |
| Compressor | 40 | 80 |
| Cranes | 16 | 85 |
| Dozers | 40 | 85 |
| Dump Trucks | 40 | 84 |
| Excavators | 40 | 85 |
| Flat Bed Trucks | 40 | 84 |
| Forklift | 20 | 85 |
| Front-end Loaders | 40 | 80 |
| Graders | 40 | 85 |
| Impact Pile Drivers | 20 | 95 |
| Jackhammers | 20 | 85 |
| Paver | 50 | 77 |
| Pickup Truck | 40 | 55 |
| Pneumatic Tools | 50 | 85 |
| Pumps | 50 | 77 |
| Rock Drills | 20 | 85 |
| Rollers | 20 | 85 |
| Scrapers | 40 | 85 |
| Tractors | 40 | 84 |
| Trencher | 50 | 80 |
| Welder | 40 | 73 |

Source: FHWA Roadway Construction Noise Model User's Guide, Table 1 (FHWA 2006).

Note: Noise levels reported in this table are rounded to the nearest whole number.

¹ Usage factor is the percentage of time during a construction noise operation that a piece of construction equipment is operating at full power.

² Maximum noise levels were developed based on Specification 721.560 from the Central Artery/Tunnel program to be consistent with the City of Boston's Noise Code for the "Big Dig" project.

FHWA = Federal Highway Administration

L_{max} = maximum instantaneous sound level

Each piece of construction equipment operates as an individual point source. Using the following equation, a composite noise level can be calculated when multiple sources of noise operate simultaneously:

$$Leq (composite) = 10 * \log_{10} \left(\sum_{1}^n 10^{\frac{Ln}{10}} \right)$$

Using the equations from the methodology above, the reference information in Table K, and the construction equipment list provided, the composite noise level of each construction phase was calculated. The project construction composite noise levels at a distance of 50 ft would range from 74 dBA L_{eq} to 88 dBA L_{eq} with the highest noise levels occurring during the site preparation and grading phases.

Once composite noise levels are calculated, reference noise levels can then be adjusted for distance using the following equation:

$$Leq \text{ (at distance } X) = Leq \text{ (at 50 feet)} - 20 * \log_{10} \left(\frac{X}{50} \right)$$

In general, this equation shows that doubling the distance would decrease noise levels by 6 dBA while halving the distance would increase noise levels by 6 dBA.

Table L shows the nearest sensitive uses to the TLSP area and the modified project site, their distance from the center of construction activities based on a typical development size of 5 acres, and composite noise levels expected during construction. These noise level projections do not take into account intervening topography or barriers. Construction equipment calculations are provided in Appendix B.

Table L: Potential Construction Noise Impacts at Nearest Receptor

| Receptor (Location) | Composite Noise Level (dBA Leq) at 50 ft ¹ | Distance (ft) | Composite Noise Level (dBA Leq) |
|--|---|---------------|---------------------------------|
| Residences within the TLSP Area | 88 | 280 | 73 |
| The Bowery Mixed-use Development (West of TLSP Area) | | 370 | 71 |

Source: Compiled by LSA (2024).

¹ The composite construction noise level represents the site preparation and grading phases which are expected to result in the greatest noise level as compared to other phases.

dBA Leq = average A-weighted hourly noise level

ft = foot/feet

While construction noise will vary, it is expected that composite noise levels during construction at the sensitive uses within the TLSP Area, expected to be within 50 ft of the perimeter of a typical 5 acres site, would reach 73 dBA Leq, while the nearest off-site sensitive uses would reach 71 dBA Leq. These predicted noise levels would only occur when all construction equipment is operating simultaneously; and therefore, are assuming to be rather conservative in nature. While construction-related short-term noise levels have the potential to be higher than existing ambient noise levels in the Modified Project area under existing conditions, the noise impacts would no longer occur once project construction is completed.

As stated above, noise impacts associated with construction activities are regulated by the City's noise ordinance. The proposed project will be required to comply with the construction hours specified in the City's Noise Ordinance, which states that construction activities are allowed between 7:00 a.m. and 6:00 p.m., Monday through Friday and 9:00 a.m. and 5:00 p.m. on Saturdays. Construction is prohibited on Sundays and City-observed federal holidays.

As it relates to off-site uses, construction-related noise impacts would remain below the 90 dBA Leq and 100 dBA Leq 1-hour construction noise level criteria as established by the FTA for residential and commercial land uses, respectively, for the average daily condition as modeled from the center of the project site and therefore would be considered less than significant. Best construction practices

presented at the end of this analysis shall be implemented to minimize noise impacts to surrounding receptors.

SHORT-TERM CONSTRUCTION VIBRATION IMPACTS

This construction vibration impact analysis discusses the level of human annoyance using vibration levels in VdB and assesses the potential for building damages using vibration levels in PPV (in/sec). This is because vibration levels calculated in RMS are best for characterizing human response to building vibration, while vibration level in PPV is best for characterizing potential for damage.

Table M shows the PPV and VdB values at 25 ft from the construction vibration source. As shown in Table M bulldozers and other heavy-tracked construction equipment (expected to be used for this project) generate approximately 0.089 PPV in/sec or 87 VdB of ground-borne vibration when measured at 25 ft, based on the FTA Manual. The distance to the nearest buildings for vibration impact analysis is measured between the nearest off-site buildings and the project construction boundary (assuming the construction equipment would be used at or near the project setback line).

Table M: Vibration Source Amplitudes for Construction Equipment

| Equipment | Reference PPV/L _v at 25 ft | |
|------------------------------------|---------------------------------------|-----------------------------------|
| | PPV (in/sec) | L _v (VdB) ¹ |
| Pile Driver (Impact), Typical | 0.644 | 104 |
| Pile Driver (Sonic), Typical | 0.170 | 93 |
| Vibratory Roller | 0.210 | 94 |
| Hoe Ram | 0.089 | 87 |
| Large Bulldozer² | 0.089 | 87 |
| Caisson Drilling | 0.089 | 87 |
| Loaded Trucks² | 0.076 | 86 |
| Jackhammer | 0.035 | 79 |
| Small Bulldozer | 0.003 | 58 |

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).

¹ RMS vibration velocity in decibels (VdB) is 1 µin/sec.

² Equipment shown in **bold** is expected to be used on site.

µin/sec = microinches per second

ft = foot/feet

FTA = Federal Transit Administration

in/sec = inch/inches per second

L_v = velocity in decibels

PPV = peak particle velocity

RMS = root-mean-square

VdB = vibration velocity decibels

The formulae for vibration transmission are provided below, and Tables N and O below provide a summary of off-site construction vibration levels.

$$L_{vDB}(D) = L_{vDB}(25 \text{ ft}) - 30 \log(D/25)$$

$$PPV_{\text{equip}} = PPV_{\text{ref}} \times (25/D)^{1.5}$$

As shown in Table G, above, the threshold at which vibration levels would result in annoyance would be 78 VdB for daytime residential uses. As shown in Table H, the FTA guidelines indicate that for a non-engineered timer and masonry building, the construction vibration damage criterion is 0.2 in/sec in PPV.

Table N: Potential Construction Vibration Annoyance Impacts at Nearest Receptor

| Receptor (Location) | Reference Vibration Level (VdB) at 25 ft ¹ | Distance (ft) ² | Vibration Level (VdB) |
|--|---|----------------------------|-----------------------|
| Residences within the TLSP Area | 87 | 280 | 56 |
| The Bowery Mixed-use Development (West of TLSP Area) | | 370 | 52 |

Source: Compiled by LSA (2024).

¹ The reference vibration level is associated with a large bulldozer, which is expected to be representative of the heavy equipment used during construction.

² The reference distance is associated with the average condition, identified by the distance from the center of construction activities to surrounding uses.

ft = foot/feet

VdB = vibration velocity decibels

Table O: Potential Construction Vibration Damage Impacts at Nearest Receptor

| Receptor (Location) | Reference Vibration Level (PPV) at 25 ft ¹ | Distance (ft) ² | Vibration Level (PPV) |
|--|---|----------------------------|-----------------------|
| Residences within the TLSP Area | 0.089 | 50 | 0.031 |
| The Bowery Mixed-use Development (West of TLSP Area) | | 140 | 0.007 |

Source: Compiled by LSA (2024).

¹ The reference vibration level is associated with a large bulldozer, which is expected to be representative of the heavy equipment used during construction.

² The reference distance is associated with the peak condition, identified by the distance from the perimeter of construction activities to surrounding structures.

ft = foot/feet

PPV = peak particle velocity

Based on the information provided in Table N, vibration levels are expected to approach 56 VdB at the closest sensitive uses to the project site, which is below the 78 VdB threshold for annoyance.

The closest structures to the project site are the residential uses within the TLSP Area, approximately 50 ft from the limits of construction activity. Based on the information provided in Table O, it is expected that vibration levels generated by dump trucks and other large equipment that would operate near the property line would generate ground-borne vibration levels of up to 0.031 PPV (in/sec) at the closest structures to the project site. This vibration level would not exceed the 0.2 PPV (in/sec) threshold considered safe for non-engineered timber and masonry buildings. All other structures are further away and would experience lower vibration levels. Therefore, vibration impacts would be less than significant. Because construction activities are regulated by the City's Municipal Code, which states that construction, maintenance, or demolition activities are allowed

between the hours of 7:00 a.m. to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturdays and City-observed federal holidays, vibration impacts would not occur during the more sensitive nighttime hours.

LONG-TERM OFF-SITE TRAFFIC NOISE IMPACTS

The guidelines included in the FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77 108) were used to evaluate highway traffic-related noise conditions along roadway segments in the project vicinity. This model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The resultant noise levels are weighted and summed over 24-hour periods to determine the CNEL values. Table P provides the traffic noise levels for the opening year and future year with and without project scenarios. These noise levels represent the worst-case scenario, which assumes no shielding is provided between the traffic and the location where the noise contours are drawn.

The without and with project scenario traffic volumes were obtained from the Traffic Impact Analysis (EPD Solutions Inc. 2024). Appendix C provides the specific assumptions used in developing these noise levels and model printouts. Table P shows that the increase in project-related traffic noise would be no greater than 0.9 dBA. Noise level increases less than 3 dBA are not perceptible to the human ear in an outdoor environment. Therefore, traffic noise impacts from project-related traffic on off-site sensitive receptors would be less than significant, and no mitigation measures are required.

LONG-TERM TRAFFIC-RELATED VIBRATION IMPACTS

The proposed project would not generate vibration levels related to on-site operations. In addition, vibration levels generated from project-related traffic on the adjacent roadways are unusual for on-road vehicles because the rubber tires and suspension systems of on-road vehicles provide vibration isolation. Vibration levels generated from project-related traffic on the adjacent roadways would be less than significant, and no mitigation measures are required.

LONG-TERM OFF-SITE STATIONARY NOISE IMPACTS

Adjacent off-site land uses would be potentially exposed to stationary-source noise impacts from sources which include on-site heating, ventilation, and air conditioning (HVAC) equipment, and truck deliveries and loading and unloading activities. It is expected that on-site stationary noise sources would meet the City of Tustin maximum noise level standards as presented previously in Table D.

Once proposed uses are determined and final site plans are available, a site-specific noise study would be required to confirm the noise level exposure from stationary sources to off-site sensitive land uses and to identify any specific mitigation measures necessary to achieve an exterior noise level below the City's noise standards.



Table P: Traffic Noise Levels Without and With Proposed Project

| Roadway Segment | Existing | | Opening Year – No Project | | Opening Year – With Project | | | Future Year – No Project | | Future Year – With Project | | |
|--|----------|---|---------------------------|---|-----------------------------|---|--|--------------------------|---|----------------------------|---|--|
| | ADT | CNEL (dBA) 50 ft from Centerline of Nearest Lane | ADT | CNEL (dBA) 50 ft from Centerline of Nearest Lane | ADT | CNEL (dBA) 50 ft from Centerline of Nearest Lane | Increase from Baseline Conditions (dBA) | ADT | CNEL (dBA) 50 ft from Centerline of Nearest Lane | ADT | CNEL (dBA) 50 ft from Centerline of Nearest Lane | Increase from Baseline Conditions (dBA) |
| Walnut Ave. between Tustin Ranch Rd. and Jamboree Rd. SB. | 23,157 | 67.4 | 23,634 | 67.5 | 23,788 | 67.5 | 0.0 | 23,873 | 67.5 | 24,028 | 67.5 | 0.0 |
| Walnut Ave. between Jamboree Rd. SB. and Jamboree Rd. NB. | 16,868 | 66.0 | 17,464 | 66.2 | 17,504 | 66.2 | 0.0 | 18,104 | 66.3 | 18,144 | 66.3 | 0.0 |
| Edinger Ave. between Newport Ave. and Del Amo Ave. | 24,765 | 66.4 | 28,825 | 67.1 | 29,432 | 67.2 | 0.1 | 36,539 | 68.1 | 37,146 | 68.2 | 0.1 |
| Edinger Ave. between Del Amo Ave. and Red Hill Ave. | 26,835 | 66.8 | 31,409 | 67.5 | 32,074 | 67.6 | 0.1 | 40,377 | 68.6 | 41,043 | 68.6 | 0.0 |
| Edinger Ave. between Red Hill Ave. and Kensington Park Dr. | 23,443 | 66.2 | 26,573 | 66.7 | 27,341 | 66.9 | 0.2 | 31,862 | 67.5 | 32,630 | 67.6 | 0.1 |
| Edinger Ave. between Kensington Park Dr. and Jamboree Rd. SB. | 22,449 | 66.0 | 23,968 | 66.3 | 24,508 | 66.4 | 0.1 | 27,123 | 66.8 | 27,663 | 66.9 | 0.1 |
| Von Karman Ave. between Barranca Pkwy. and Alton Pkwy. | 26,488 | 67.4 | 29,000 | 67.8 | 29,643 | 67.9 | 0.1 | 34,285 | 68.5 | 34,927 | 68.6 | 0.1 |
| Edinger Ave. between Jamboree Rd. NB and Harvard Ave. | 25,738 | 66.6 | 26,959 | 66.8 | 27,125 | 66.8 | 0.0 | 29,092 | 67.1 | 29,258 | 67.2 | 0.1 |
| Valencia Ave. between Red Hill Ave. and Armstrong Ave. | 10,156 | 63.5 | 11,327 | 64.0 | 11,703 | 64.1 | 0.1 | 13,015 | 64.6 | 13,391 | 64.7 | 0.1 |
| Valencia Ave. between Armstrong Ave. and Kensington Park Dr. | 11,761 | 64.1 | 13,252 | 64.7 | 13,632 | 64.8 | 0.1 | 15,528 | 65.4 | 15,908 | 65.5 | 0.1 |
| Valencia Ave. between Kensington Park Dr. and Tustin Ranch Rd. | 15,695 | 65.4 | 19,245 | 66.3 | 19,905 | 66.4 | 0.1 | 24,614 | 67.4 | 25,275 | 67.5 | 0.1 |
| Moffett Dr. between Tustin Ranch Rd. and Park Ave. | 3,238 | 57.7 | 6,892 | 61.0 | 8,459 | 61.9 | 0.9 | 14,721 | 64.3 | 16,288 | 64.7 | 0.4 |
| Victory Rd. between Tustin Ranch Rd. and Park Ave. | 1,904 | 56.0 | 2,078 | 56.4 | 2,332 | 56.9 | 0.5 | 2,452 | 57.1 | 2,705 | 57.5 | 0.4 |
| Victory Rd. between Red Hill Ave. and Armstrong Ave. | 691 | 51.6 | 4,025 | 59.2 | 4,762 | 60.0 | 0.8 | 11,169 | 63.7 | 11,906 | 63.9 | 0.2 |
| Warner Ave. between Red Hill Ave. and Armstrong Ave. | 13,197 | 64.6 | 16,687 | 65.7 | 18,035 | 66.0 | 0.3 | 22,892 | 67.0 | 24,240 | 67.3 | 0.3 |
| Warner Ave. between Armstrong Ave. and Legacy Rd. | 10,960 | 63.8 | 15,231 | 65.3 | 16,713 | 65.7 | 0.4 | 23,209 | 67.1 | 24,691 | 67.4 | 0.3 |
| Warner Ave. between Legacy Rd. and Tustin Ranch Rd. | 7,888 | 62.4 | 8,459 | 62.7 | 8,647 | 62.8 | 0.1 | 9,684 | 63.3 | 9,872 | 63.4 | 0.1 |
| Warner Ave. between Tustin Ranch Rd. and Park Ave. | 16,754 | 65.7 | 18,644 | 66.1 | 19,506 | 66.3 | 0.2 | 22,694 | 67.0 | 23,556 | 67.2 | 0.2 |
| Warner Ave. between Park Ave. and Jamboree Rd. | 20,527 | 66.6 | 21,588 | 66.8 | 22,057 | 66.9 | 0.1 | 23,863 | 67.2 | 24,331 | 67.3 | 0.1 |
| Warner Ave. between Jamboree Rd. and Harvard Ave. | 17,318 | 65.8 | 17,749 | 65.9 | 18,159 | 66.0 | 0.1 | 18,673 | 66.2 | 19,082 | 66.2 | 0.0 |



Table P: Traffic Noise Levels Without and With Proposed Project

| Roadway Segment | Existing | | Opening Year – No Project | | Opening Year – With Project | | | Future Year – No Project | | Future Year – With Project | | |
|--|----------|---|---------------------------|---|-----------------------------|---|--|--------------------------|---|----------------------------|---|--|
| | ADT | CNEL (dBA) 50 ft from Centerline of Nearest Lane | ADT | CNEL (dBA) 50 ft from Centerline of Nearest Lane | ADT | CNEL (dBA) 50 ft from Centerline of Nearest Lane | Increase from Baseline Conditions (dBA) | ADT | CNEL (dBA) 50 ft from Centerline of Nearest Lane | ADT | CNEL (dBA) 50 ft from Centerline of Nearest Lane | Increase from Baseline Conditions (dBA) |
| Park Ave. between Tustin Ranch Rd. and The District | 12,147 | 64.0 | 13,361 | 64.4 | 13,844 | 64.6 | 0.2 | 14,790 | 64.9 | 15,272 | 65.0 | 0.1 |
| Barranca Pkwy. between Red Hill Ave. and Aston St. | 30,169 | 66.9 | 32,224 | 67.2 | 32,375 | 67.2 | 0.0 | 35,847 | 67.7 | 35,998 | 67.7 | 0.0 |
| Barranca Pkwy. between Aston St. and Armstrong Ave. | 29,137 | 66.8 | 30,226 | 66.9 | 30,401 | 66.9 | 0.0 | 31,779 | 67.1 | 31,954 | 67.2 | 0.1 |
| Barranca Pkwy. between Armstrong Ave. and Von Karman Ave. | 30,950 | 67.0 | 31,785 | 67.1 | 31,926 | 67.1 | 0.0 | 32,795 | 67.3 | 32,936 | 67.3 | 0.0 |
| Barranca Pkwy. between Von Karman Ave. and The District | 28,240 | 66.6 | 30,063 | 66.9 | 30,124 | 66.9 | 0.0 | 33,189 | 67.3 | 33,250 | 67.3 | 0.0 |
| Barranca Pkwy. between The District and Jamboree Rd. | 34,011 | 67.4 | 36,360 | 67.7 | 36,799 | 67.8 | 0.1 | 41,395 | 68.3 | 41,834 | 68.3 | 0.0 |
| Barranca Pkwy. between Jamboree Rd. and Harvard Ave. | 23,247 | 65.8 | 24,050 | 65.9 | 24,126 | 65.9 | 0.0 | 25,772 | 66.2 | 25,847 | 66.2 | 0.0 |
| Alton Pkwy. between Red Hill Ave. and Von Karman Ave. | 13,451 | 64.2 | 14,783 | 64.6 | 14,861 | 64.7 | 0.1 | 17,538 | 65.4 | 17,617 | 65.4 | 0.0 |
| Alton Pkwy. between Von Karman Ave. and Jamboree Rd. | 14,902 | 64.7 | 15,355 | 64.8 | 15,360 | 64.8 | 0.0 | 16,327 | 65.1 | 16,332 | 65.1 | 0.0 |
| Alton Pkwy. between Jamboree Rd. and Harvard Ave. | 15,998 | 65.0 | 16,666 | 65.2 | 16,838 | 65.2 | 0.0 | 17,999 | 65.5 | 18,171 | 65.5 | 0.0 |
| Red Hill Ave. between Edinger Ave. and Valencia Rd. | 21,703 | 66.3 | 22,781 | 66.5 | 22,965 | 66.5 | 0.0 | 24,358 | 66.8 | 24,542 | 66.8 | 0.0 |
| Red Hill Ave. between Valencia Rd. and Victory Rd. | 23,835 | 66.7 | 25,955 | 67.1 | 26,753 | 67.2 | 0.1 | 28,946 | 67.6 | 29,745 | 67.7 | 0.1 |
| Red Hill Ave. between Victory Rd. and Warner Ave. | 24,191 | 66.8 | 25,374 | 67.0 | 25,577 | 67.0 | 0.0 | 26,502 | 67.2 | 26,705 | 67.2 | 0.0 |
| Red Hill Ave. between Warner Ave. and Carnegie Ave. | 23,020 | 66.6 | 24,461 | 66.8 | 25,014 | 66.9 | 0.1 | 27,098 | 67.3 | 27,651 | 67.4 | 0.1 |
| Red Hill Ave. between Carnegie Ave. and Barranca Pkwy. | 24,300 | 66.8 | 25,972 | 67.1 | 26,449 | 67.2 | 0.1 | 29,455 | 67.6 | 29,933 | 67.7 | 0.1 |
| Red Hill Ave. between Barranca Pkwy. and Alton Pkwy. | 27,510 | 67.3 | 28,434 | 67.5 | 28,684 | 67.5 | 0.0 | 30,317 | 67.8 | 30,566 | 67.8 | 0.0 |
| Armstrong Ave. between Valencia Ave. and Victory Rd. | 2,951 | 58.1 | 3,836 | 59.3 | 3,915 | 59.4 | 0.1 | 5,635 | 61.0 | 5,714 | 61.0 | 0.0 |
| Armstrong Ave. between Victory Rd. and Warner Ave. | 3,210 | 58.5 | 4,748 | 60.2 | 4,840 | 60.3 | 0.1 | 7,946 | 62.4 | 8,037 | 62.5 | 0.1 |
| Armstrong Ave. between Warner Ave. and Barranca Pkwy. | 4,747 | 60.2 | 6,575 | 61.6 | 6,783 | 61.8 | 0.2 | 10,493 | 63.7 | 10,701 | 63.7 | 0.0 |
| Kensington Park Dr. between Edinger Ave. and Valencia Ave. | 7,057 | 61.7 | 8,497 | 62.5 | 8,858 | 62.7 | 0.2 | 10,263 | 63.3 | 10,623 | 63.4 | 0.1 |



Table P: Traffic Noise Levels Without and With Proposed Project

| Roadway Segment | Existing | | Opening Year – No Project | | Opening Year – With Project | | | Future Year – No Project | | Future Year – With Project | | |
|--|----------|---|---------------------------|---|-----------------------------|---|--|--------------------------|---|----------------------------|---|--|
| | ADT | CNEL (dBA) 50 ft from Centerline of Nearest Lane | ADT | CNEL (dBA) 50 ft from Centerline of Nearest Lane | ADT | CNEL (dBA) 50 ft from Centerline of Nearest Lane | Increase from Baseline Conditions (dBA) | ADT | CNEL (dBA) 50 ft from Centerline of Nearest Lane | ADT | CNEL (dBA) 50 ft from Centerline of Nearest Lane | Increase from Baseline Conditions (dBA) |
| Tustin Ranch Rd. between Walnut Ave. and Valencia Ave. | 33,978 | 68.0 | 38,619 | 68.6 | 40,145 | 68.7 | 0.1 | 46,230 | 69.4 | 47,756 | 69.5 | 0.1 |
| Legacy Rd. between Warner Ave. and Tustin Ranch Rd. | 3,278 | 58.3 | 4,733 | 59.9 | 5,569 | 60.6 | 0.7 | 6,676 | 61.4 | 7,512 | 61.9 | 0.5 |
| Tustin Ranch Rd. between Valencia Ave. and Moffett Dr. | 30,381 | 67.5 | 32,935 | 67.9 | 34,089 | 68.0 | 0.1 | 38,311 | 68.5 | 39,464 | 68.7 | 0.2 |
| Tustin Ranch Rd. between Moffett Dr. and Victory Rd. | 28,663 | 67.3 | 31,371 | 67.7 | 32,783 | 67.9 | 0.2 | 37,076 | 68.4 | 38,487 | 68.6 | 0.2 |
| Tustin Ranch Rd. between Victory Rd. and Warner Av N. | 28,485 | 67.3 | 30,770 | 67.6 | 31,755 | 67.7 | 0.1 | 35,567 | 68.2 | 36,552 | 68.3 | 0.1 |
| Tustin Ranch Rd. between Warner Ave. N. and Warner Ave. S. | 27,493 | 67.1 | 29,169 | 67.4 | 29,796 | 67.5 | 0.1 | 32,662 | 67.8 | 33,289 | 67.9 | 0.1 |
| Tustin Ranch Rd. between Warner Ave. S. and Legacy Rd. | 20,813 | 65.9 | 21,739 | 66.1 | 22,123 | 66.2 | 0.1 | 23,623 | 66.4 | 24,008 | 66.5 | 0.1 |
| Tustin Ranch Rd. between Legacy Rd. and Barranca Pkwy. | 23,676 | 66.5 | 26,744 | 67.0 | 27,581 | 67.1 | 0.1 | 33,220 | 67.9 | 34,057 | 68.0 | 0.1 |
| The District between Park Ave. and Barranca Pkwy. | 8,936 | 62.7 | 9,842 | 63.1 | 10,375 | 63.3 | 0.2 | 11,003 | 63.6 | 11,536 | 63.8 | 0.2 |
| Park Ave. between Moffett Dr. and Victory Rd. | 1,017 | 53.3 | 2,064 | 56.3 | 2,520 | 57.2 | 0.9 | 4,308 | 59.5 | 4,764 | 60.0 | 0.5 |
| Park Ave. between Victory Rd. and Jamboree Rd. | 2,996 | 57.9 | 3,819 | 59.0 | 4,183 | 59.4 | 0.4 | 5,582 | 60.6 | 5,947 | 60.9 | 0.3 |
| Park Ave. between Jamboree Rd. and Warner Ave. | 8,584 | 62.5 | 9,991 | 63.2 | 10,338 | 63.3 | 0.1 | 13,007 | 64.3 | 13,354 | 64.4 | 0.1 |
| Park Ave. between Warner Ave. and The District | 9,358 | 62.9 | 9,977 | 63.2 | 10,242 | 63.3 | 0.1 | 11,304 | 63.7 | 11,569 | 63.8 | 0.1 |
| Jamboree Rd. between Barranca Pkwy. and Alton Pkwy. | 48,449 | 69.1 | 49,440 | 69.2 | 49,964 | 69.3 | 0.1 | 51,562 | 69.4 | 52,087 | 69.5 | 0.1 |
| Jamboree Rd. between Walnut Ave. and Edinger Ave. | 75,334 | 71.1 | 76,477 | 71.1 | 76,602 | 71.1 | 0.0 | 78,343 | 71.2 | 78,469 | 71.2 | 0.0 |
| Jamboree Rd. between Edinger Ave. and Warner Ave. | 74,989 | 71.0 | 75,560 | 71.1 | 75,708 | 71.1 | 0.0 | 76,784 | 71.1 | 76,931 | 71.2 | 0.1 |
| Jamboree Rd. between Warner Ave. and Barranca Pkwy. | 59,053 | 70.0 | 59,405 | 70.0 | 59,577 | 70.0 | 0.0 | 60,160 | 70.1 | 60,331 | 70.1 | 0.0 |
| Harvard Ave. between Walnut Ave. and Edinger Ave. | 7,335 | 62.1 | 8,264 | 62.6 | 8,359 | 62.7 | 0.1 | 10,256 | 63.6 | 10,350 | 63.6 | 0.0 |
| Harvard Ave. between Edinger Ave. and Moffett Dr. | 5,656 | 61.0 | 6,515 | 61.6 | 6,619 | 61.7 | 0.1 | 7,903 | 62.4 | 8,006 | 62.5 | 0.1 |
| Harvard Ave. between Moffett Dr. and Warner Ave. | 11,063 | 63.9 | 11,896 | 64.2 | 11,970 | 64.2 | 0.0 | 13,227 | 64.7 | 13,300 | 64.7 | 0.0 |
| Harvard Ave. between Warner Ave. and Barranca Pkwy. | 13,193 | 64.6 | 13,606 | 64.8 | 13,669 | 64.8 | 0.0 | 14,063 | 64.9 | 14,126 | 64.9 | 0.0 |

Table P: Traffic Noise Levels Without and With Proposed Project

| Roadway Segment | Existing | | Opening Year – No Project | | Opening Year – With Project | | | Future Year – No Project | | Future Year – With Project | | |
|--|----------|---|---------------------------|---|-----------------------------|---|--|--------------------------|---|----------------------------|---|--|
| | ADT | CNEL (dBA) 50 ft from Centerline of Nearest Lane | ADT | CNEL (dBA) 50 ft from Centerline of Nearest Lane | ADT | CNEL (dBA) 50 ft from Centerline of Nearest Lane | Increase from Baseline Conditions (dBA) | ADT | CNEL (dBA) 50 ft from Centerline of Nearest Lane | ADT | CNEL (dBA) 50 ft from Centerline of Nearest Lane | Increase from Baseline Conditions (dBA) |
| Harvard Ave. between Barranca Pkwy. and Alton Pkwy. | 16,038 | 65.5 | 16,265 | 65.6 | 16,312 | 65.6 | 0.0 | 16,344 | 65.6 | 16,392 | 65.6 | 0.0 |
| Walnut Ave. between Jamboree Rd. NB and Harvard Ave. | 18,677 | 66.4 | 19,945 | 66.7 | 20,011 | 66.7 | 0.0 | 22,076 | 67.2 | 22,142 | 67.2 | 0.0 |
| Red Hill Ave. between Sycamore Ave. and Edinger Ave. | 28,247 | 67.4 | 28,695 | 67.5 | 28,935 | 67.6 | 0.1 | 29,510 | 67.6 | 29,750 | 67.7 | 0.1 |
| Edinger Ave. between Auto Mall Dr. and Newport Ave. | 36,326 | 68.1 | 42,128 | 68.7 | 42,702 | 68.8 | 0.1 | 48,296 | 69.3 | 48,869 | 69.4 | 0.1 |
| SR-55 between Edinger Ave. and Barranca Pkwy. | 268,324 | 83.4 | 277,669 | 83.6 | 277,763 | 83.6 | 0.0 | 294,346 | 83.8 | 294,440 | 83.8 | 0.0 |
| Newport Ave. between Edinger Ave. and SR-55 NB Ramp | 13,871 | 64.6 | 18,081 | 65.8 | 18,411 | 65.8 | 0.0 | 21,821 | 66.6 | 22,152 | 66.6 | 0.0 |
| Newport Ave. between SR-55 NB Ramp and Valencia Ave. | 10,183 | 63.3 | 12,976 | 64.3 | 13,805 | 64.6 | 0.3 | 15,145 | 65.0 | 15,974 | 65.2 | 0.2 |
| Del Amo Ave. between Newport Ave. and Edinger Ave. | 5,374 | 60.5 | 5,753 | 60.8 | 5,812 | 60.8 | 0.0 | 6,412 | 61.3 | 6,470 | 61.3 | 0.0 |
| Valencia Ave. between Newport Ave. and Red Hill Ave. | 7,706 | 62.0 | 9,283 | 62.9 | 10,141 | 63.2 | 0.3 | 12,663 | 64.2 | 13,521 | 64.5 | 0.3 |
| Warner Ave. between Grand Ave. and Red Hill Ave. | 19,580 | 66.1 | 22,860 | 66.8 | 23,505 | 66.9 | 0.1 | 27,660 | 67.6 | 28,305 | 67.7 | 0.1 |
| Dyer Rd. between Red Hill Ave. and Pullman St. | 30,625 | 68.0 | 32,663 | 68.3 | 33,040 | 68.4 | 0.1 | 36,251 | 68.8 | 36,627 | 68.8 | 0.0 |
| Moffett Dr. between Harvard Ave. and Park Ave. | 3,163 | 57.3 | 5,965 | 60.1 | 7,251 | 60.9 | 0.8 | 11,971 | 63.1 | 13,256 | 63.5 | 0.4 |
| Jamboree Rd SB Ramp between Park Ave. and Jamboree Rd. SB. | 7,276 | 60.4 | 7,746 | 60.6 | 8,006 | 60.8 | 0.2 | 8,752 | 61.2 | 9,012 | 61.3 | 0.1 |
| Jamboree Rd NB Ramp between Warner Ave. and Jamboree Rd. NB. | 10,198 | 61.8 | 10,397 | 61.9 | 10,585 | 62.0 | 0.1 | 10,824 | 62.1 | 11,012 | 62.2 | 0.1 |

Source: Compiled by LSA (2024).
ADT = average daily traffic
CNEL= Community Noise Equivalent Level
dBA = A-weighted decibels
ft = foot/feet
NB = northbound
SB = southbound
SR-55 = State Route 55

LAND USE COMPATIBILITY

The dominant source of noise in the project vicinity is traffic noise from roadways in the vicinity of the project.

EXTERIOR NOISE ASSESSMENT

Based on the monitoring results shown in Table I, the existing measured noise levels at the project site closest to the Metrolink train track is up to 73.2 dBA CNEL. Exterior living areas of residential units, which are either shared spaces, access points to the units, or balconies that are less than 6 ft deep, are not considered as exterior living areas. However, once site plans are available, a Final Acoustical Report, as required by Mitigation Measure N-3 (MM N-3) from the 2017 Subsequent EIR for the Tustin Legacy Specific Plan, described further below, would be required to confirm any proposed exterior noise sensitive areas would experience noise levels less than 65 dBA CNEL and to identify any noise reduction features to the exterior living areas, if necessary.

2017 SEIR MM N-3: For new development within the reuse area, the City of Tustin and City of Irvine, as applicable shall ensure that interior and exterior noise levels do not exceed those prescribed by state requirements and local city ordinances and general plans. Plans demonstrating noise regulation conformity shall be submitted for review and approval prior to building permits being issued to accommodate reuse.

INTERIOR NOISE ASSESSMENT

As discussed above, the California Code of Regulations and the City's Noise Element state that an interior noise level standard of 45 dBA CNEL or less is required for all noise-sensitive rooms. Based on the expected future exterior noise levels closest to the Metro link train tracks approaching 73 dBA CNEL, a minimum noise reduction of 28 dBA would be required.

Based on reference information from transmission loss test reports for various Milgard windows (Milgard 2008), the necessary reduction can be achieved with standard building construction and with standard windows, typically in the Sound Transmission Class (STC) 25–28 range, and interior noise levels of 45 dBA CNEL or less would be achieved.

Once final plans are available to detail the exterior wall construction and a window manufacturer has been chosen, as part of the Final Acoustical Report discussed above, an analysis would be required to confirm the reduction capability of the exterior façades and to identify any specific upgrades necessary to achieve an interior noise level of 45 dBA CNEL or below.

BEST CONSTRUCTION PRACTICES AND DESIGN REQUIREMENTS

In addition to compliance with the City's Municipal Code allowed hours of construction of 7:00 a.m. to 8:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturdays and City-observed federal holidays, the following best construction practices would further minimize construction noise impacts:

- The project construction contractor shall equip all construction equipment, fixed or mobile, with properly operating and maintained noise mufflers consistent with manufacturer's standards.
- The project construction contractor shall locate staging areas away from off-site sensitive uses during the later phases of project development.
- The project construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site whenever feasible.

REFERENCES

City of Irvine. 2015. Municipal Code.

City of Tustin. 2012. *General Plan Noise Element*.

———. 2023. *Municipal Code*. Website: https://library.municode.com/ca/tustin/codes/code_of_ordinances (accessed April 2024). November 27.

County of Orange. 2022. Community Noise Equivalent Level. Website: <https://www.ocair.com/about/administration/access-noise/reports-resources/> (accessed April 2024).

EPD Solutions, Inc. 2024. *Tustin Legacy Specific Plan Traffic Impact Analysis*.

Federal Highway Administration (FHWA). 2006. *Roadway Construction Noise Model User's Guide*. January. Washington, D.C. Website: https://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/rcnm.pdf (accessed April 2024).

Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment Manual*. Office of Planning and Environment. Report No. 0123. September.

Milgard. 2008. Various Transmission Loss Reports.

APPENDIX A

NOISE MONITORING SHEETS

Noise Measurement Survey – 24 HR

Project Number: ESL2201.74

Test Personnel: Kevin Nguyendo

Project Name: Tustin Legacy SP

Equipment: Spark 706RC (SN:206)

Site Number: LT-1 Date: 2/8/24

Time: From 12:00 p.m. To 12:00 p.m.

Site Location: Tustin Legacy Park. Along the western corner of the project site near the Barranca Parkway and Red Hill Avenue intersection on a light pole.

Primary Noise Sources: Traffic on Barranca Parkway and Red Hill Avenue.

Comments: _____

Photo:



Long-Term (24-Hour) Noise Level Measurement Results at LT-1

| Start Time | Date | Noise Level (dBA) | | |
|------------|--------|-------------------|-----------|-----------|
| | | L_{eq} | L_{max} | L_{min} |
| 12:00 PM | 2/8/24 | 66.6 | 79.5 | 55.0 |
| 1:00 PM | 2/8/24 | 68.0 | 85.4 | 57.0 |
| 2:00 PM | 2/8/24 | 68.5 | 84.3 | 56.9 |
| 3:00 PM | 2/8/24 | 69.9 | 83.6 | 56.3 |
| 4:00 PM | 2/8/24 | 70.6 | 86.0 | 57.1 |
| 5:00 PM | 2/8/24 | 71.1 | 92.4 | 55.0 |
| 6:00 PM | 2/8/24 | 68.6 | 91.2 | 54.9 |
| 7:00 PM | 2/8/24 | 65.7 | 87.6 | 52.8 |
| 8:00 PM | 2/8/24 | 65.1 | 87.3 | 52.6 |
| 9:00 PM | 2/8/24 | 65.1 | 79.3 | 53.4 |
| 10:00 PM | 2/8/24 | 63.7 | 83.3 | 51.6 |
| 11:00 PM | 2/8/24 | 61.4 | 74.2 | 49.7 |
| 12:00 AM | 2/9/24 | 58.3 | 75.2 | 48.9 |
| 1:00 AM | 2/9/24 | 57.1 | 79.2 | 49.6 |
| 2:00 AM | 2/9/24 | 56.5 | 70.1 | 50.2 |
| 3:00 AM | 2/9/24 | 57.1 | 73.4 | 50.3 |
| 4:00 AM | 2/9/24 | 63.4 | 87.1 | 51.7 |
| 5:00 AM | 2/9/24 | 63.7 | 80.1 | 53.9 |
| 6:00 AM | 2/9/24 | 64.7 | 75.1 | 56.3 |
| 7:00 AM | 2/9/24 | 68.4 | 89.3 | 58.2 |
| 8:00 AM | 2/9/24 | 67.4 | 82.1 | 55.6 |
| 9:00 AM | 2/9/24 | 66.9 | 86.2 | 53.7 |
| 10:00 AM | 2/9/24 | 66.1 | 85.8 | 53.6 |
| 11:00 AM | 2/9/24 | 66.7 | 81.0 | 55.6 |

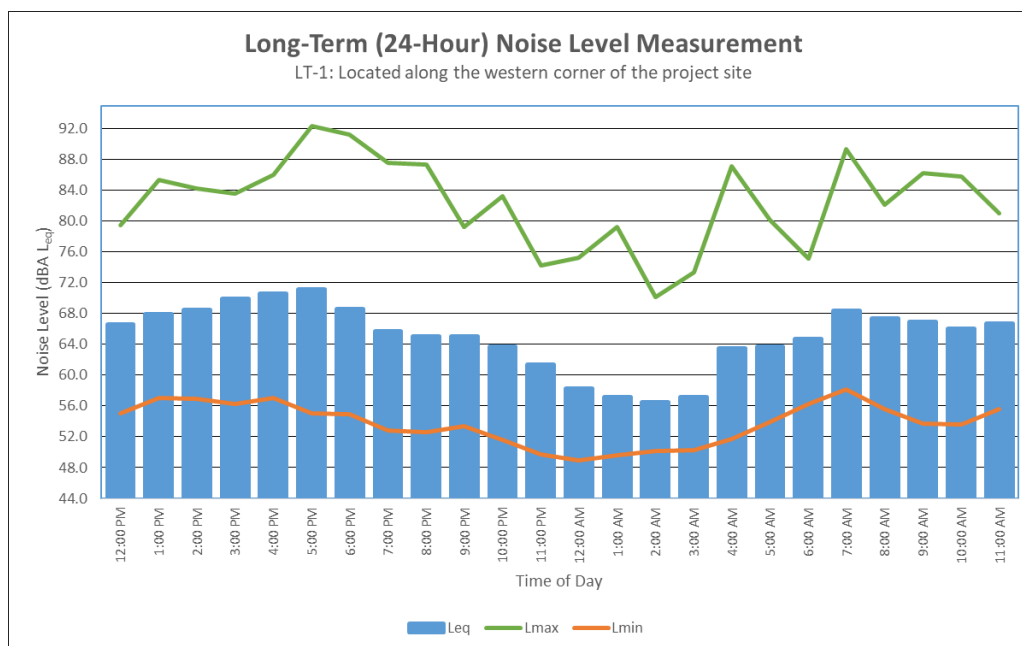
Source: Compiled by LSA Associates, Inc. (2024).

dBA = A-weighted decibel

L_{eq} = equivalent continuous sound level

L_{max} = maximum instantaneous noise level

L_{min} = minimum measured sound level



Noise Measurement Survey – 24 HR

Project Number: ESL2201.74
Project Name: Tustin Legacy SP

Test Personnel: Kevin Nguyendo
Equipment: Spark 706RC (SN:814)

Site Number: LT-2 Date: 2/8/24

Time: From 12:00 p.m. To 12:00 p.m.

Site Location: 2810 Warner Ave, Irvine, CA 92606. Located near the western façade of
An apartment complex on a tree.

Primary Noise Sources: Traffic on Park Avenue.

Comments: _____

Photo:



Long-Term (24-Hour) Noise Level Measurement Results at LT-2

| Start Time | Date | Noise Level (dBA) | | |
|------------|--------|-------------------|-----------|-----------|
| | | L_{eq} | L_{max} | L_{min} |
| 12:00 PM | 2/8/24 | 69.2 | 87.4 | 56.5 |
| 1:00 PM | 2/8/24 | 69.4 | 85.4 | 57.5 |
| 2:00 PM | 2/8/24 | 66.0 | 79.2 | 57.6 |
| 3:00 PM | 2/8/24 | 66.3 | 75.2 | 57.3 |
| 4:00 PM | 2/8/24 | 67.2 | 80.5 | 58.5 |
| 5:00 PM | 2/8/24 | 67.3 | 84.3 | 56.5 |
| 6:00 PM | 2/8/24 | 65.7 | 78.3 | 58.1 |
| 7:00 PM | 2/8/24 | 63.9 | 73.5 | 53.3 |
| 8:00 PM | 2/8/24 | 63.2 | 78.9 | 52.5 |
| 9:00 PM | 2/8/24 | 61.7 | 75.3 | 49.1 |
| 10:00 PM | 2/8/24 | 60.3 | 74.5 | 47.7 |
| 11:00 PM | 2/8/24 | 59.5 | 86.5 | 46.3 |
| 12:00 AM | 2/9/24 | 55.5 | 71.9 | 44.7 |
| 1:00 AM | 2/9/24 | 54.3 | 69.2 | 45.6 |
| 2:00 AM | 2/9/24 | 54.7 | 73.6 | 44.1 |
| 3:00 AM | 2/9/24 | 55.6 | 69.1 | 44.6 |
| 4:00 AM | 2/9/24 | 59.9 | 72.7 | 47.4 |
| 5:00 AM | 2/9/24 | 63.8 | 74.2 | 51.0 |
| 6:00 AM | 2/9/24 | 66.5 | 76.1 | 57.6 |
| 7:00 AM | 2/9/24 | 69.0 | 77.8 | 56.3 |
| 8:00 AM | 2/9/24 | 69.2 | 73.5 | 60.8 |
| 9:00 AM | 2/9/24 | 67.2 | 74.9 | 60.0 |
| 10:00 AM | 2/9/24 | 66.7 | 77.1 | 56.3 |
| 11:00 AM | 2/9/24 | 66.7 | 78.3 | 58.2 |

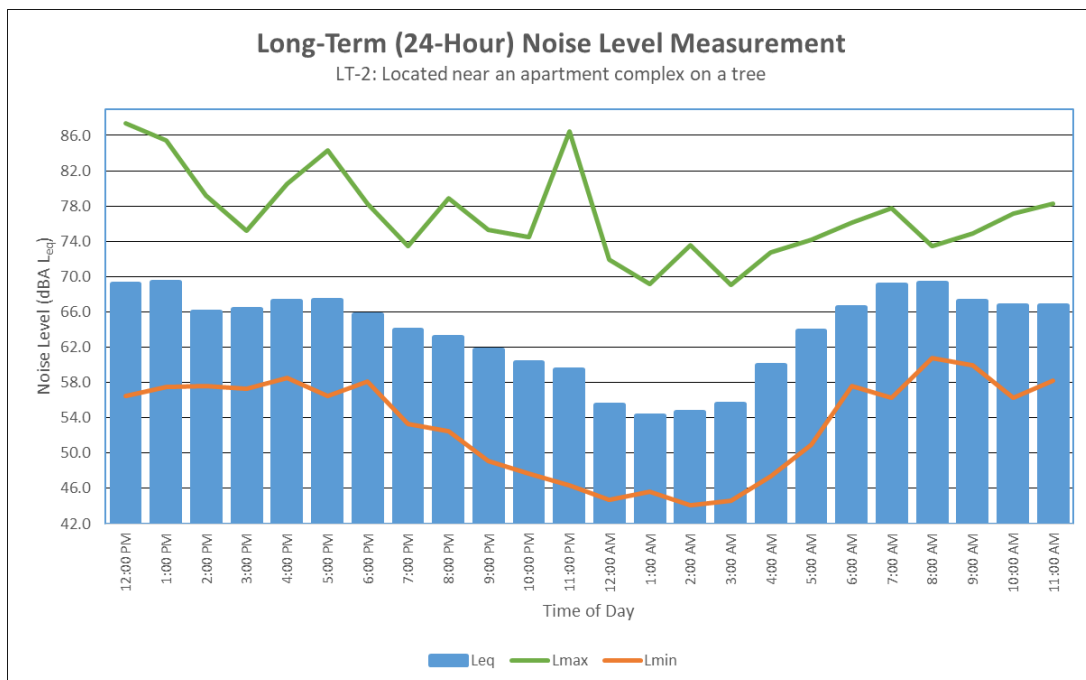
Source: Compiled by LSA Associates, Inc. (2024).

dBA = A-weighted decibel

L_{eq} = equivalent continuous sound level

L_{max} = maximum instantaneous noise level

L_{min} = minimum measured sound level



Noise Measurement Survey – 24 HR

Project Number: ESL2201.74
Project Name: Tustin Legacy SP

Test Personnel: Kevin Nguyendo
Equipment: Spark 706RC (SN:119)

Site Number: LT-3 Date: 2/8/24

Time: From 12:00 p.m. To 12:00 p.m.

Site Location: 117 Liberty St, Tustin, CA 92782. Near the northern façade of a townhome
On a tree.

Primary Noise Sources: Intermittent train noise.

Comments: _____

Photo:



Long-Term (24-Hour) Noise Level Measurement Results at LT-3

| Start Time | Date | Noise Level (dBA) | | |
|------------|--------|-------------------|------------------|------------------|
| | | L _{eq} | L _{max} | L _{min} |
| 12:00 PM | 2/8/24 | 66.9 | 88.7 | 62.2 |
| 1:00 PM | 2/8/24 | 68.7 | 90.4 | 62.4 |
| 2:00 PM | 2/8/24 | 66.9 | 87.8 | 63.1 |
| 3:00 PM | 2/8/24 | 65.2 | 65.6 | 63.4 |
| 4:00 PM | 2/8/24 | 68.1 | 93.2 | 63.6 |
| 5:00 PM | 2/8/24 | 71.5 | 95.8 | 63.5 |
| 6:00 PM | 2/8/24 | 67.4 | 92.4 | 63.6 |
| 7:00 PM | 2/8/24 | 65.8 | 66.1 | 63.9 |
| 8:00 PM | 2/8/24 | 71.3 | 96.2 | 63.8 |
| 9:00 PM | 2/8/24 | 66.2 | 66.3 | 64.0 |
| 10:00 PM | 2/8/24 | 66.3 | 66.3 | 65.2 |
| 11:00 PM | 2/8/24 | 66.3 | 66.4 | 64.5 |
| 12:00 AM | 2/9/24 | 66.0 | 66.4 | 64.3 |
| 1:00 AM | 2/9/24 | 65.7 | 66.3 | 64.4 |
| 2:00 AM | 2/9/24 | 67.3 | 91.8 | 64.4 |
| 3:00 AM | 2/9/24 | 66.9 | 89.3 | 63.6 |
| 4:00 AM | 2/9/24 | 65.5 | 87.0 | 62.0 |
| 5:00 AM | 2/9/24 | 64.9 | 87.2 | 61.1 |
| 6:00 AM | 2/9/24 | 66.2 | 94.4 | 60.6 |
| 7:00 AM | 2/9/24 | 64.7 | 87.7 | 60.8 |
| 8:00 AM | 2/9/24 | 65.1 | 91.4 | 61.2 |
| 9:00 AM | 2/9/24 | 65.8 | 90.8 | 61.1 |
| 10:00 AM | 2/9/24 | 65.9 | 92.2 | 61.1 |
| 11:00 AM | 2/9/24 | 66.5 | 92.0 | 61.3 |

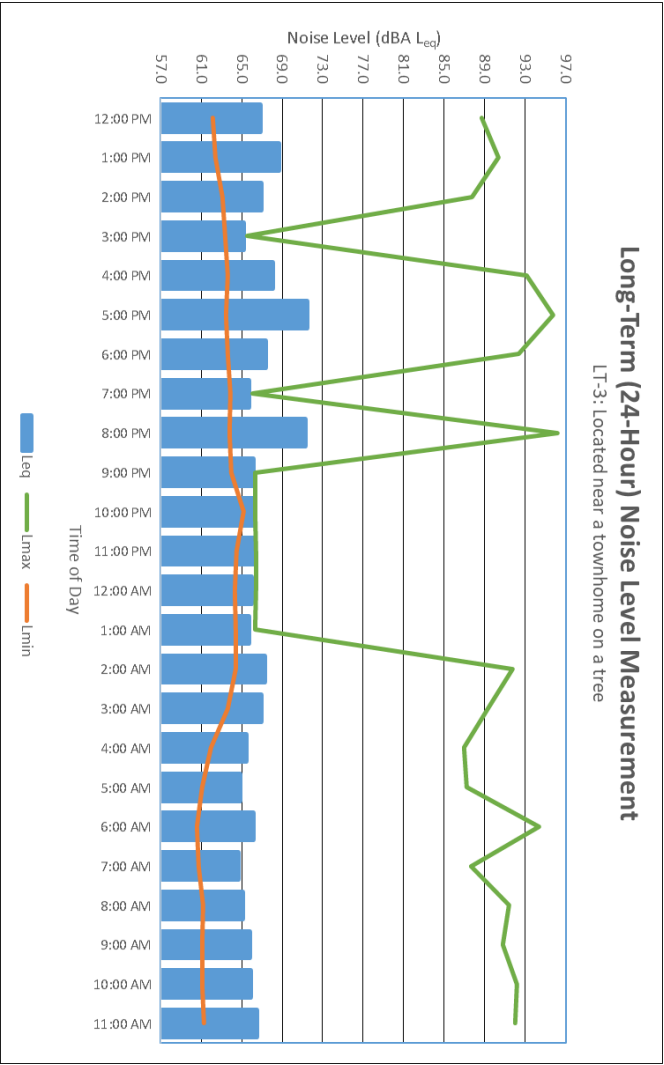
Source: Compiled by LSA Associates, Inc. (2024).

dBA = A-weighted decibel

L_{eq} = equivalent continuous sound level

L_{max} = maximum instantaneous noise level

L_{min} = minimum measured sound level



APPENDIX B

CONSTRUCTION NOISE LEVEL CALCULATIONS

Construction Calculations

Phase: Site Preparation

| Equipment | Quantity | Reference (dBA) 50 ft Lmax | Usage Factor ¹ | Distance to Receptor (ft) | Ground Effects | Noise Level (dBA) | |
|-------------------------------|----------|-------------------------------|------------------------------|------------------------------|-------------------|-------------------|-----|
| | | | | | | Lmax | Leq |
| Dozer | 3 | 82 | 40 | 50 | 0.5 | 82 | 83 |
| Tractor | 4 | 84 | 40 | 50 | 0.5 | 84 | 86 |
| Combined at 50 feet | | | | | | 86 | 88 |
| Combined at Receptor 280 feet | | | | | | 71 | 73 |
| Combined at Receptor 370 feet | | | | | | 69 | 70 |

Phase: Grading

| Equipment | Quantity | Reference (dBA) 50 ft Lmax | Usage Factor ¹ | Distance to Receptor (ft) | Ground Effects | Noise Level (dBA) | |
|-------------------------------|----------|-------------------------------|------------------------------|------------------------------|-------------------|-------------------|-----|
| | | | | | | Lmax | Leq |
| Excavator | 2 | 81 | 40 | 50 | 0.5 | 81 | 80 |
| Grader | 1 | 85 | 40 | 50 | 0.5 | 85 | 81 |
| Dozer | 1 | 82 | 40 | 50 | 0.5 | 82 | 78 |
| Scraper | 2 | 84 | 40 | 50 | 0.5 | 84 | 83 |
| Tractor | 2 | 84 | 40 | 50 | 0.5 | 84 | 83 |
| Combined at 50 feet | | | | | | 90 | 88 |
| Combined at Receptor 280 feet | | | | | | 75 | 73 |
| Combined at Receptor 370 feet | | | | | | 73 | 71 |

Phase: Building Construction

| Equipment | Quantity | Reference (dBA) 50 ft Lmax | Usage Factor ¹ | Distance to Receptor (ft) | Ground Effects | Noise Level (dBA) | |
|-------------------------------|----------|-------------------------------|------------------------------|------------------------------|-------------------|-------------------|-----|
| | | | | | | Lmax | Leq |
| Crane | 1 | 81 | 16 | 50 | 0.5 | 81 | 73 |
| Man Lift | 3 | 75 | 20 | 50 | 0.5 | 75 | 73 |
| Generator | 1 | 81 | 50 | 50 | 0.5 | 81 | 78 |
| Tractor | 3 | 84 | 40 | 50 | 0.5 | 84 | 85 |
| Welder / Torch | 1 | 74 | 40 | 50 | 0.5 | 74 | 70 |
| Combined at 50 feet | | | | | | 86 | 81 |
| Combined at Receptor 280 feet | | | | | | 71 | 66 |
| Combined at Receptor 370 feet | | | | | | 69 | 63 |

Phase: Paving

| Equipment | Quantity | Reference (dBA) 50 ft Lmax | Usage Factor ¹ | Distance to Receptor (ft) | Ground Effects | Noise Level (dBA) | |
|-------------------------------|----------|-------------------------------|------------------------------|------------------------------|-------------------|-------------------|-----|
| | | | | | | Lmax | Leq |
| Paver | 2 | 77 | 50 | 50 | 0.5 | 77 | 77 |
| All Other Equipment > 5 HP | 2 | 85 | 50 | 50 | 0.5 | 85 | 85 |
| Roller | 2 | 80 | 20 | 50 | 0.5 | 80 | 76 |
| Combined at 50 feet | | | | | | 87 | 86 |
| Combined at Receptor 280 feet | | | | | | 72 | 71 |
| Combined at Receptor 370 feet | | | | | | 69 | 69 |

Phase: Architectural Coating

| Equipment | Quantity | Reference (dBA) 50 ft Lmax | Usage Factor ¹ | Distance to Receptor (ft) | Ground Effects | Noise Level (dBA) | |
|-------------------------------|----------|-------------------------------|------------------------------|------------------------------|-------------------|-------------------|-----|
| | | | | | | Lmax | Leq |
| Compressor (air) | 1 | 78 | 40 | 50 | 0.5 | 78 | 74 |
| Combined at 50 feet | | | | | | 78 | 74 |
| Combined at Receptor 280 feet | | | | | | 63 | 59 |
| Combined at Receptor 370 feet | | | | | | 61 | 57 |

Sources: RCNM

¹ - Percentage of time that a piece of equipment is operating at full power.

dBA – A-weighted Decibels

Lmax- Maximum Level

Leq- Equivalent Level

APPENDIX C

FHWA TRAFFIC NOISE MODEL PRINTOUTS

TABLE Existing -01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Walnut Av. between Tustin Ranch Rd. and Jamboree Rd.
SB.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23157 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.38

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 110.9 | 232.0 | 496.4 |

TABLE Existing -02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Walnut Av. between Jamboree Rd. SB. and Jamboree Rd.
NB.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16868 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.00

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 91.5 | 188.6 | 402.2 |

TABLE Existing -03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Newport Av. and Del Amo Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24765 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.43

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 75.5 | 124.3 | 246.2 | 519.9 |

TABLE Existing -04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Del Amo Av. and Red Hill Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26835 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.78

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 77.5 | 129.8 | 259.1 | 548.2 |

TABLE Existing -05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Red Hill Av. and Kensington Park Dr.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23443 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.20

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 120.7 | 237.9 | 501.6 |

TABLE Existing -06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Kensington Park Dr. and Jamboree Rd. SB.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22449 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.01

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 118.0 | 231.5 | 487.4 |

TABLE Existing -07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Von Karman Av. between Barranca Pkwy. and Alton Pkwy.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26488 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.41

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 67.3 | 123.3 | 254.5 | 542.8 |

TABLE Existing -08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Jamboree Rd. NB and Harvard Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25738 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.60

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 76.4 | 126.9 | 252.3 | 533.3 |

TABLE Existing -09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Valencia Av. between Red Hill Av. and Armstrong Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10156 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.51

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 70.9 | 137.3 | 288.0 |

TABLE Existing -10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Valencia Av. between Armstrong Av. and Kensington Park Dr.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11761 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.15

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 76.4 | 150.5 | 317.2 |

TABLE Existing -11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Valencia Av. between Kensington Park Dr. and Tustin Ranch Rd.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15695 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.40

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 89.5 | 180.8 | 383.7 |

TABLE Existing -12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Moffett Dr. between Tustin Ranch Rd. and Park Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3238 SPEED (MPH): 35 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 57.73

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 0.0 | 110.3 |

TABLE Existing -13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Victory Rd. between Tustin Ranch Rd. and Park Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1904 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 55.98

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 0.0 | 101.8 |

TABLE Existing -14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Victory Rd. between Red Hill Av. and Armstrong Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 691 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 51.58

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 0.0 | 0.0 |

TABLE Existing -15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Red Hill Av. and Armstrong Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13197 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.65

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 81.3 | 161.9 | 342.2 |

TABLE Existing -16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Armstrong Av. and Legacy Rd.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10960 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.84

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 73.7 | 144.0 | 302.8 |

TABLE Existing -17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Legacy Rd. and Tustin Ranch Rd.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7888 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.41

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 62.7 | 117.5 | 244.1 |

TABLE Existing -18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Tustin Ranch Rd. and Park Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16754 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.68

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 92.9 | 188.6 | 400.7 |

TABLE Existing -19
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Park Av. and Jamboree Rd.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20527 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.57

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 104.5 | 215.0 | 458.3 |

TABLE Existing -20
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Jamboree Rd. and Harvard Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17318 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.83

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 94.6 | 192.6 | 409.5 |

TABLE Existing -21
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Tustin Ranch Rd. and The District

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12147 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.03

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 80.1 | 154.7 | 324.5 |

TABLE Existing -22
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Red Hill Av. and Aston St.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 30169 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.90

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 87.7 | 142.7 | 281.2 | 592.9 |

TABLE Existing -23
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Aston St. and Armstrong Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29137 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.75

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 86.8 | 140.1 | 275.1 | 579.4 |

TABLE Existing -24
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Armstrong Av. and Von Karman Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 30950 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.01

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 88.4 | 144.6 | 285.8 | 602.9 |

TABLE Existing -25
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Von Karman Av. and The District

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28240 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.62

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 86.1 | 137.8 | 269.7 | 567.6 |

TABLE Existing -26
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between The District and Jamboree Rd.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 34011 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.42

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 91.1 | 152.1 | 303.4 | 641.6 |

TABLE Existing -27
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Jamboree Rd. and Harvard Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23247 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.77

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 125.0 | 239.0 | 499.6 |

TABLE Existing -28
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Alton Pkwy. between Red Hill Av. and Von Karman Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13451 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.22

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 86.8 | 166.1 | 347.4 |

TABLE Existing -29
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Alton Pkwy. between Von Karman Av. and Jamboree Rd.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14902 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.67

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 91.3 | 177.0 | 371.6 |

TABLE Existing -30
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Alton Pkwy. between Jamboree Rd. and Harvard Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15998 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.98

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 94.7 | 185.1 | 389.3 |

TABLE Existing -31
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Edinger Av. and Valencia Rd.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21703 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.30

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 111.6 | 224.6 | 476.0 |

TABLE Existing -32
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Valencia Rd. and Victory Rd.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23835 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.71

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 67.6 | 117.6 | 238.4 | 506.4 |

TABLE Existing -33
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Victory Rd. and Warner Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24191 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.77

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 68.0 | 118.6 | 240.7 | 511.3 |

TABLE Existing -34
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Warner Av. and Carnegie Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23020 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.56

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 115.4 | 233.2 | 494.9 |

TABLE Existing -35
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Carnegie Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24300 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.79

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 68.1 | 118.9 | 241.4 | 512.9 |

TABLE Existing -36
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Barranca Pkwy. and Alton Pkwy.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27510 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.33

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 71.5 | 127.8 | 261.5 | 556.8 |

TABLE Existing -37
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Armstrong Av. between Valencia Av. and Victory Rd.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2951 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.14

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 67.9 | 130.2 |

TABLE Existing -38
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Armstrong Av. between Victory Rd. and Warner Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3210 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.51

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 70.8 | 137.2 |

TABLE Existing -39
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Armstrong Av. between Warner Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4747 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.21

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 87.3 | 175.7 |

TABLE Existing -40
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Kensington Park Dr. between Edinger Av. and Valencia Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7057 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.67

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 111.5 | 227.8 |

TABLE Existing -41
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Walnut Av. and Valencia Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 33978 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.02

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 81.1 | 146.4 | 300.6 | 640.5 |

TABLE Existing -42
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Legacy Rd. between Warner Av. and Tustin Ranch Rd.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3278 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.34

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 74.1 | 140.3 |

TABLE Existing -43
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Valencia Av. and Moffett Dr.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 30381 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.54

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 77.6 | 137.2 | 279.7 | 594.8 |

TABLE Existing -44
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Moffett Dr. and Victory Rd.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28663 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.28

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 75.8 | 132.7 | 269.4 | 572.3 |

TABLE Existing -45
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Victory Rd. and Warner Av N.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28485 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.26

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 75.7 | 132.2 | 268.3 | 570.0 |

TABLE Existing -46
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Warner Av. N. and Warner Av. S.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27493 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.10

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 74.7 | 129.5 | 262.2 | 556.7 |

TABLE Existing -47
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Warner Av. S. and Legacy Rd.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20813 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.89

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 111.2 | 219.6 | 463.4 |

TABLE Existing -48
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Legacy Rd. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23676 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.45

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 70.9 | 119.2 | 238.3 | 504.4 |

TABLE Existing -49
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: The District between Park Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8936 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.69

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 69.3 | 128.2 | 265.4 |

TABLE Existing -50
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Moffett Dr. and Victory Rd.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1017 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 53.25

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 0.0 | 73.5 |

TABLE Existing -51
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Victory Rd. and Jamboree Rd.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2996 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 57.95

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 71.1 | 132.8 |

TABLE Existing -52
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Jamboree Rd. and Warner Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8584 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.52

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 68.0 | 125.2 | 258.6 |

TABLE Existing -53
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Warner Av. and The District

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9358 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.89

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 70.7 | 131.8 | 273.5 |

TABLE Existing -54
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd. between Barranca Pkwy. and Alton Pkwy.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 48449 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.15

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 100.7 | 184.3 | 380.1 | 810.6 |

TABLE Existing -55
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd. between Walnut Av. and Edinger Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 75334 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.07

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 124.0 | 241.4 | 507.3 | 1086.6 |

TABLE Existing -56
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd. between Edinger Av. and Warner Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 74989 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.05

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 123.7 | 240.7 | 505.7 | 1083.3 |

TABLE Existing -57
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd. between Warner Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 59053 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.01

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 110.1 | 207.7 | 432.4 | 924.4 |

TABLE Existing -58
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Walnut Av. and Edinger Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7335 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.10

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 112.4 | 232.8 |

TABLE Existing -59
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Edinger Av. and Moffett Dr.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5656 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.97

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 96.4 | 196.7 |

TABLE Existing -60
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Moffett Dr. and Warner Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11063 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.88

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 74.0 | 144.8 | 304.7 |

TABLE Existing -61
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Warner Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13193 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.65

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 81.3 | 161.8 | 342.1 |

TABLE Existing -62
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Barranca Pkwy. and Alton Pkwy.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16038 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.50

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 90.6 | 183.3 | 389.2 |

TABLE Existing -63
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Walnut Av. between Jamboree Rd. NB and Harvard Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18677 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.44

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 97.3 | 201.5 | 430.3 |

TABLE Existing -64
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Sycamore Av. and Edinger Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28247 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.45

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 72.2 | 129.8 | 266.0 | 566.6 |

TABLE Existing -65
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Auto Mall Dr. and Newport Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 36326 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.10

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 86.5 | 154.0 | 314.7 | 669.7 |

TABLE Existing -66
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: SR-55 between Edinger Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 268324 SPEED (MPH): 80 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 85 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 83.42

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 826.6 | 1773.0 | 3815.7 | 8217.4 |

TABLE Existing -67
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Newport Av. between Edinger Av. and SR-55 NB Ramp

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13871 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.60

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 85.7 | 168.1 | 354.0 |

TABLE Existing -68
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Newport Av. between SR-55 NB Ramp and Valencia Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10183 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.26

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 73.5 | 138.8 | 289.0 |

TABLE Existing -69
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Del Amo Av. between Newport Av. and Edinger Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5374 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.48

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 95.6 | 191.2 |

TABLE Existing -70
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Valencia Av. between Newport Av. and Red Hill Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7706 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.05

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 65.0 | 117.4 | 241.1 |

TABLE Existing -71
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Grand Av. and Red Hill Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19580 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.10

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 103.4 | 209.4 | 444.5 |

TABLE Existing -72
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Dyer Rd. between Red Hill Av. and Pullman St.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 30625 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.04

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 71.8 | 134.6 | 279.7 | 597.7 |

TABLE Existing -73
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Moffett Dr. between Harvard Av. and Park Av.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3163 SPEED (MPH): 35 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 57.31

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 0.0 | 109.9 |

TABLE Existing -74
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd SB Ramp between Park Av. and Jamboree Rd.
SB.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7276 SPEED (MPH): 30 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.37

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 68.5 | 144.8 |

TABLE Existing -75
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd NB Ramp between Warner Av. and Jamboree Rd.
NB.

NOTES: Tustin Legacy Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10198 SPEED (MPH): 30 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.83

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 85.1 | 181.1 |

TABLE Opening Year - No Project -01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Walnut Av. between Tustin Ranch Rd. and Jamboree Rd.
SB.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23634 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.47

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 58.5 | 112.3 | 235.0 | 503.0 |

TABLE Opening Year - No Project -02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Walnut Av. between Jamboree Rd. SB. and Jamboree Rd.
NB.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17464 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.15

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 93.4 | 192.9 | 411.6 |

TABLE Opening Year - No Project -03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Newport Av. and Del Amo Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28825 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.09

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 79.4 | 135.0 | 271.2 | 574.7 |

TABLE Opening Year - No Project -04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Del Amo Av. and Red Hill Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 31409 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.47

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 81.8 | 141.7 | 286.5 | 608.2 |

TABLE Opening Year - No Project -05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Red Hill Av. and Kensington Park Dr.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26573 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.74

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 77.2 | 129.1 | 257.5 | 544.6 |

TABLE Opening Year - No Project -06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Kensington Park Dr. and Jamboree Rd. SB.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23968 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.29

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 74.7 | 122.1 | 241.2 | 508.8 |

TABLE Opening Year - No Project -07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Von Karman Av. between Barranca Pkwy. and Alton Pkwy.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29000 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.80

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 70.1 | 130.2 | 269.9 | 576.4 |

TABLE Opening Year - No Project -08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Jamboree Rd. NB and Harvard Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26959 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.80

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 77.6 | 130.1 | 259.9 | 549.8 |

TABLE Opening Year - No Project -09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Valencia Av. between Red Hill Av. and Armstrong Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11327 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.98

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 74.9 | 147.0 | 309.4 |

TABLE Opening Year - No Project -10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Valencia Av. between Armstrong Av. and Kensington Park Dr.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13252 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.67

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 81.5 | 162.3 | 343.2 |

TABLE Opening Year - No Project -11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Valencia Av. between Kensington Park Dr. and Tustin Ranch Rd.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19245 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.29

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 100.6 | 206.2 | 439.2 |

TABLE Opening Year - No Project -12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Moffett Dr. between Tustin Ranch Rd. and Park Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6892 SPEED (MPH): 35 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.01

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 86.2 | 179.5 |

TABLE Opening Year - No Project -13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Victory Rd. between Tustin Ranch Rd. and Park Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2078 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 56.36

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 0.0 | 107.0 |

TABLE Opening Year - No Project -14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Victory Rd. between Red Hill Av. and Armstrong Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4025 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.23

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 82.0 | 159.3 |

TABLE Opening Year - No Project -15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Red Hill Av. and Armstrong Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16687 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.67

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 92.7 | 188.1 | 399.6 |

TABLE Opening Year - No Project -16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Armstrong Av. and Legacy Rd.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15231 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.27

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 88.0 | 177.4 | 376.2 |

TABLE Opening Year - No Project -17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Legacy Rd. and Tustin Ranch Rd.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8459 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.72

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 64.8 | 122.6 | 255.5 |

TABLE Opening Year - No Project -18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Tustin Ranch Rd. and Park Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18644 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.15

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 98.8 | 202.0 | 430.0 |

TABLE Opening Year - No Project -19
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Park Av. and Jamboree Rd.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21588 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.79

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 107.7 | 222.2 | 473.9 |

TABLE Opening Year - No Project -20
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Jamboree Rd. and Harvard Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17749 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.94

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 96.0 | 195.7 | 416.2 |

TABLE Opening Year - No Project -21
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Tustin Ranch Rd. and The District

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13361 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.44

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 84.1 | 164.2 | 345.4 |

TABLE Opening Year - No Project -22
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Red Hill Av. and Aston St.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 32224 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.19

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 89.5 | 147.8 | 293.2 | 619.2 |

TABLE Opening Year - No Project -23
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Aston St. and Armstrong Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 30226 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.91

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 87.8 | 142.8 | 281.5 | 593.6 |

TABLE Opening Year - No Project -24
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Armstrong Av. and Von Karman Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 31785 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.13

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 89.2 | 146.7 | 290.6 | 613.6 |

TABLE Opening Year - No Project -25
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Von Karman Av. and The District

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 30063 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.89

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 87.7 | 142.4 | 280.6 | 591.5 |

TABLE Opening Year - No Project -26
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between The District and Jamboree Rd.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 36360 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.71

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 93.2 | 157.8 | 316.6 | 670.5 |

TABLE Opening Year - No Project -27
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Jamboree Rd. and Harvard Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24050 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.92

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 82.4 | 127.1 | 244.0 | 510.8 |

TABLE Opening Year - No Project -28
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Alton Pkwy. between Red Hill Av. and Von Karman Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14783 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.63

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 91.0 | 176.2 | 369.6 |

TABLE Opening Year - No Project -29
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Alton Pkwy. between Von Karman Av. and Jamboree Rd.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15355 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.80

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 92.7 | 180.4 | 379.0 |

TABLE Opening Year - No Project -30
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Alton Pkwy. between Jamboree Rd. and Harvard Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16666 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.15

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 96.7 | 189.9 | 399.9 |

TABLE Opening Year - No Project -31
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Edinger Av. and Valencia Rd.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22781 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.51

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 114.7 | 231.6 | 491.5 |

TABLE Opening Year - No Project -32
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Valencia Rd. and Victory Rd.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25955 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.08

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 69.8 | 123.5 | 251.9 | 535.7 |

TABLE Opening Year - No Project -33
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Victory Rd. and Warner Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25374 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.98

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 69.2 | 121.9 | 248.2 | 527.8 |

TABLE Opening Year - No Project -34
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Warner Av. and Carnegie Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24461 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.82

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 68.3 | 119.4 | 242.4 | 515.1 |

TABLE Opening Year - No Project -35
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Carnegie Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25972 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.08

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 69.9 | 123.6 | 252.0 | 536.0 |

TABLE Opening Year - No Project -36
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Barranca Pkwy. and Alton Pkwy.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28434 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.47

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 72.4 | 130.3 | 267.2 | 569.1 |

TABLE Opening Year - No Project -37
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Armstrong Av. between Valencia Av. and Victory Rd.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3836 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.28

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 77.7 | 153.5 |

TABLE Opening Year - No Project -38
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Armstrong Av. between Victory Rd. and Warner Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4748 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.21

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 87.3 | 175.8 |

TABLE Opening Year - No Project -39
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Armstrong Av. between Warner Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6575 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.62

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 105.3 | 216.8 |

TABLE Opening Year - No Project -40
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Kensington Park Dr. between Edinger Av. and Valencia Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8497 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.47

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 67.7 | 124.4 | 256.9 |

TABLE Opening Year - No Project -41
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Walnut Av. and Valencia Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 38619 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.58

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 85.7 | 158.0 | 326.7 | 697.3 |

TABLE Opening Year - No Project -42
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Legacy Rd. between Warner Av. and Tustin Ranch Rd.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4733 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.93

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 89.2 | 176.4 |

TABLE Opening Year - No Project -43
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Valencia Av. and Moffett Dr.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 32935 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.89

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 80.1 | 143.8 | 294.6 | 627.4 |

TABLE Opening Year - No Project -44
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Moffett Dr. and Victory Rd.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 31371 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.67

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 78.5 | 139.7 | 285.5 | 607.5 |

TABLE Opening Year - No Project -45
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Victory Rd. and Warner Av N.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 30770 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.59

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 77.9 | 138.2 | 282.0 | 599.8 |

TABLE Opening Year - No Project -46
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Warner Av. N. and Warner Av. S.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29169 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.36

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 76.4 | 134.0 | 272.4 | 579.0 |

TABLE Opening Year - No Project -47
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Warner Av. S. and Legacy Rd.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21739 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.08

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 113.8 | 225.8 | 476.9 |

TABLE Opening Year - No Project -48
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Legacy Rd. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26744 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.98

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 73.9 | 127.5 | 257.6 | 546.7 |

TABLE Opening Year - No Project -49
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: The District between Park Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9842 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.11

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 72.4 | 135.9 | 282.7 |

TABLE Opening Year - No Project -50
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Moffett Dr. and Victory Rd.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2064 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 56.33

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 0.0 | 106.6 |

TABLE Opening Year - No Project -51
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Victory Rd. and Jamboree Rd.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3819 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.00

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 79.9 | 154.2 |

TABLE Opening Year - No Project -52
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Jamboree Rd. and Warner Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9991 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.18

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 72.9 | 137.2 | 285.5 |

TABLE Opening Year - No Project -53
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Warner Av. and The District

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9977 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.17

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 72.8 | 137.1 | 285.2 |

TABLE Opening Year - No Project -54
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd. between Barranca Pkwy. and Alton Pkwy.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 49440 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.24

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 101.6 | 186.5 | 385.1 | 821.6 |

TABLE Opening Year - No Project -55
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd. between Walnut Av. and Edinger Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 76477 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.13

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 125.0 | 243.7 | 512.3 | 1097.6 |

TABLE Opening Year - No Project -56
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd. between Edinger Av. and Warner Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 75560 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.08

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 124.2 | 241.9 | 508.3 | 1088.8 |

TABLE Opening Year - No Project -57
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd. between Warner Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 59405 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.03

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 110.4 | 208.4 | 434.1 | 928.0 |

TABLE Opening Year - No Project -58
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Walnut Av. and Edinger Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8264 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.62

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 64.1 | 120.9 | 251.6 |

TABLE Opening Year - No Project -59
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Edinger Av. and Moffett Dr.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6515 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.58

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 104.8 | 215.5 |

TABLE Opening Year - No Project -60
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Moffett Dr. and Warner Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11896 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.20

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 76.9 | 151.6 | 319.6 |

TABLE Opening Year - No Project -61
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Warner Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13606 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.78

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 82.7 | 165.0 | 349.2 |

TABLE Opening Year - No Project -62
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Barranca Pkwy. and Alton Pkwy.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16265 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.56

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 91.3 | 185.0 | 392.9 |

TABLE Opening Year - No Project -63
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Walnut Av. between Jamboree Rd. NB and Harvard Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19945 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.73

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 101.2 | 210.4 | 449.5 |

TABLE Opening Year - No Project -64
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Sycamore Av. and Edinger Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28695 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.51

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 72.7 | 131.0 | 268.8 | 572.5 |

TABLE Opening Year - No Project -65
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Auto Mall Dr. and Newport Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 42128 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.74

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 92.0 | 168.0 | 346.4 | 738.8 |

TABLE Opening Year - No Project -66
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: SR-55 between Edinger Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 277669 SPEED (MPH): 80 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 85 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 83.56

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 845.5 | 1813.9 | 3903.7 | 8407.0 |

TABLE Opening Year - No Project -67
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Newport Av. between Edinger Av. and SR-55 NB Ramp

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18081 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.75

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 98.9 | 198.9 | 421.7 |

TABLE Opening Year - No Project -68
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Newport Av. between SR-55 NB Ramp and Valencia Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12976 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.31

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 82.8 | 161.2 | 338.8 |

TABLE Opening Year - No Project -69
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Del Amo Av. between Newport Av. and Edinger Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5753 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.78

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 99.3 | 199.7 |

TABLE Opening Year - No Project -70
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Valencia Av. between Newport Av. and Red Hill Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9283 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.86

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 70.5 | 131.2 | 272.1 |

TABLE Opening Year - No Project -71
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Grand Av. and Red Hill Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22860 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.77

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 113.1 | 231.3 | 492.4 |

TABLE Opening Year - No Project -72
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Dyer Rd. between Red Hill Av. and Pullman St.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 32663 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.32

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 74.0 | 140.0 | 291.7 | 623.8 |

TABLE Opening Year - No Project -73
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Moffett Dr. between Harvard Av. and Park Av.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5965 SPEED (MPH): 35 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.07

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 80.7 | 164.1 |

TABLE Opening Year - No Project -74
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd SB Ramp between Park Av. and Jamboree Rd.
SB.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7746 SPEED (MPH): 30 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.64

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 71.3 | 151.0 |

TABLE Opening Year - No Project -75
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd NB Ramp between Warner Av. and Jamboree Rd.
NB.

NOTES: Tustin Legacy Project - Opening Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10397 SPEED (MPH): 30 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.92

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 86.2 | 183.4 |

TABLE Opening Year - With Project -01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Walnut Av. between Tustin Ranch Rd. and Jamboree Rd.
SB.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23788 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.49

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 58.7 | 112.8 | 236.0 | 505.2 |

TABLE Opening Year - With Project -02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Walnut Av. between Jamboree Rd. SB. and Jamboree Rd.
NB.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17504 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.16

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 93.5 | 193.2 | 412.2 |

TABLE Opening Year - With Project -03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Newport Av. and Del Amo Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29432 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.18

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 80.0 | 136.6 | 274.8 | 582.7 |

TABLE Opening Year - With Project -04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Del Amo Av. and Red Hill Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 32074 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.56

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 82.5 | 143.4 | 290.4 | 616.7 |

TABLE Opening Year - With Project -05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Red Hill Av. and Kensington Park Dr.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27341 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.86

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 78.0 | 131.1 | 262.2 | 555.0 |

TABLE Opening Year - With Project -06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Kensington Park Dr. and Jamboree Rd. SB.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24508 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.39

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 75.2 | 123.6 | 244.6 | 516.3 |

TABLE Opening Year - With Project -07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Von Karman Av. between Barranca Pkwy. and Alton Pkwy.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29643 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.90

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 70.8 | 132.0 | 273.8 | 584.9 |

TABLE Opening Year - With Project -08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Jamboree Rd. NB and Harvard Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27125 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.83

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 77.7 | 130.5 | 260.9 | 552.1 |

TABLE Opening Year - With Project -09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Valencia Av. between Red Hill Av. and Armstrong Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11703 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.13

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 76.2 | 150.0 | 316.2 |

TABLE Opening Year - With Project -10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Valencia Av. between Armstrong Av. and Kensington Park Dr.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13632 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.79

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 82.7 | 165.2 | 349.6 |

TABLE Opening Year - With Project -11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Valencia Av. between Kensington Park Dr. and Tustin Ranch Rd.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19905 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.43

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 102.6 | 210.8 | 449.1 |

TABLE Opening Year - With Project -12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Moffett Dr. between Tustin Ranch Rd. and Park Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8459 SPEED (MPH): 35 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.90

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 97.8 | 205.3 |

TABLE Opening Year - With Project -13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Victory Rd. between Tustin Ranch Rd. and Park Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2332 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 56.86

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 0.0 | 114.4 |

TABLE Opening Year - With Project -14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Victory Rd. between Red Hill Av. and Armstrong Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4762 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.96

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 89.5 | 177.1 |

TABLE Opening Year - With Project -15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Red Hill Av. and Armstrong Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18035 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.00

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 96.9 | 197.7 | 420.7 |

TABLE Opening Year - With Project -16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Armstrong Av. and Legacy Rd.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16713 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.67

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 92.7 | 188.3 | 400.0 |

TABLE Opening Year - With Project -17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Legacy Rd. and Tustin Ranch Rd.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8647 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.81

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 65.5 | 124.3 | 259.2 |

TABLE Opening Year - With Project -18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Tustin Ranch Rd. and Park Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19506 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.35

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 101.4 | 208.0 | 443.1 |

TABLE Opening Year - With Project -19
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Park Av. and Jamboree Rd.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22057 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.88

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 109.1 | 225.3 | 480.7 |

TABLE Opening Year - With Project -20
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Jamboree Rd. and Harvard Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18159 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.03

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 97.3 | 198.6 | 422.6 |

TABLE Opening Year - With Project -21
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Tustin Ranch Rd. and The District

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13844 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.59

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 85.6 | 167.9 | 353.6 |

TABLE Opening Year - With Project -22
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Red Hill Av. and Aston St.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 32375 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.21

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 89.7 | 148.1 | 294.0 | 621.1 |

TABLE Opening Year - With Project -23
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Aston St. and Armstrong Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 30401 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.94

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 88.0 | 143.2 | 282.6 | 595.9 |

TABLE Opening Year - With Project -24
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Armstrong Av. and Von Karman Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 31926 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.15

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 89.3 | 147.0 | 291.4 | 615.4 |

TABLE Opening Year - With Project -25
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Von Karman Av. and The District

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 30124 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.90

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 87.7 | 142.6 | 280.9 | 592.3 |

TABLE Opening Year - With Project -26
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between The District and Jamboree Rd.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 36799 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.77

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 93.6 | 158.9 | 319.0 | 675.9 |

TABLE Opening Year - With Project -27
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Jamboree Rd. and Harvard Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24126 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.93

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 82.5 | 127.3 | 244.5 | 511.8 |

TABLE Opening Year - With Project -28
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Alton Pkwy. between Red Hill Av. and Von Karman Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14861 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.66

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 91.2 | 176.7 | 370.9 |

TABLE Opening Year - With Project -29
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Alton Pkwy. between Von Karman Av. and Jamboree Rd.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15360 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.80

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 92.8 | 180.4 | 379.0 |

TABLE Opening Year - With Project -30
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Alton Pkwy. between Jamboree Rd. and Harvard Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16838 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.20

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 97.3 | 191.1 | 402.7 |

TABLE Opening Year - With Project -31
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Edinger Av. and Valencia Rd.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22965 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.55

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 115.2 | 232.8 | 494.2 |

TABLE Opening Year - With Project -32
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Valencia Rd. and Victory Rd.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26753 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.21

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 70.7 | 125.7 | 256.9 | 546.6 |

TABLE Opening Year - With Project -33
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Victory Rd. and Warner Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25577 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.01

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 69.4 | 122.5 | 249.5 | 530.5 |

TABLE Opening Year - With Project -34
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Warner Av. and Carnegie Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25014 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.92

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 68.8 | 120.9 | 246.0 | 522.8 |

TABLE Opening Year - With Project -35
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Carnegie Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26449 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.16

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 70.4 | 124.9 | 255.0 | 542.4 |

TABLE Opening Year - With Project -36
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Barranca Pkwy. and Alton Pkwy.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28684 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.51

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 72.7 | 131.0 | 268.7 | 572.4 |

TABLE Opening Year - With Project -37
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Armstrong Av. between Valencia Av. and Victory Rd.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3915 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.37

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 78.5 | 155.4 |

TABLE Opening Year - With Project -38
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Armstrong Av. between Victory Rd. and Warner Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4840 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.29

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 88.2 | 177.9 |

TABLE Opening Year - With Project -39
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Armstrong Av. between Warner Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6783 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.76

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 107.3 | 221.3 |

TABLE Opening Year - With Project -40
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Kensington Park Dr. between Edinger Av. and Valencia Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8858 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.65

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 69.0 | 127.5 | 263.9 |

TABLE Opening Year - With Project -41
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Walnut Av. and Valencia Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 40145 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.75

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 87.2 | 161.7 | 335.1 | 715.4 |

TABLE Opening Year - With Project -42
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Legacy Rd. between Warner Av. and Tustin Ranch Rd.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5569 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.64

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 97.5 | 195.6 |

TABLE Opening Year - With Project -43
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Valencia Av. and Moffett Dr.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 34089 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.04

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 81.2 | 146.7 | 301.3 | 641.9 |

TABLE Opening Year - With Project -44
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Moffett Dr. and Victory Rd.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 32783 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.87

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 79.9 | 143.4 | 293.8 | 625.5 |

TABLE Opening Year - With Project -45
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Victory Rd. and Warner Av N.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 31755 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.73

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 78.9 | 140.7 | 287.8 | 612.5 |

TABLE Opening Year - With Project -46
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Warner Av. N. and Warner Av. S.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29796 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.45

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 77.0 | 135.6 | 276.2 | 587.2 |

TABLE Opening Year - With Project -47
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Warner Av. S. and Legacy Rd.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22123 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.16

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 114.9 | 228.3 | 482.4 |

TABLE Opening Year - With Project -48
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Legacy Rd. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27581 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.12

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 74.8 | 129.8 | 262.8 | 557.9 |

TABLE Opening Year - With Project -49
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: The District between Park Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10375 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.34

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 74.2 | 140.4 | 292.6 |

TABLE Opening Year - With Project -50
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Moffett Dr. and Victory Rd.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2520 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 57.19

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 65.9 | 119.7 |

TABLE Opening Year - With Project -51
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Victory Rd. and Jamboree Rd.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4183 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.40

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 83.6 | 163.2 |

TABLE Opening Year - With Project -52
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Jamboree Rd. and Warner Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10338 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.32

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 74.1 | 140.1 | 291.9 |

TABLE Opening Year - With Project -53
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Warner Av. and The District

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10242 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.28

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 73.7 | 139.3 | 290.1 |

TABLE Opening Year - With Project -54
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd. between Barranca Pkwy. and Alton Pkwy.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 49964 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.28

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 102.1 | 187.7 | 387.7 | 827.3 |

TABLE Opening Year - With Project -55
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd. between Walnut Av. and Edinger Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 76602 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.14

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 125.1 | 244.0 | 512.9 | 1098.8 |

TABLE Opening Year - With Project -56
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd. between Edinger Av. and Warner Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 75708 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.09

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 124.3 | 242.2 | 508.9 | 1090.2 |

TABLE Opening Year - With Project -57
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd. between Warner Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 59577 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.05

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 110.5 | 208.8 | 434.9 | 929.8 |

TABLE Opening Year - With Project -58
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Walnut Av. and Edinger Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8359 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.67

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 64.4 | 121.7 | 253.5 |

TABLE Opening Year - With Project -59
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Edinger Av. and Moffett Dr.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6619 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.65

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 105.7 | 217.8 |

TABLE Opening Year - With Project -60
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Moffett Dr. and Warner Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11970 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.22

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 77.1 | 152.2 | 320.9 |

TABLE Opening Year - With Project -61
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Warner Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13669 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.80

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 82.9 | 165.5 | 350.2 |

TABLE Opening Year - With Project -62
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Barranca Pkwy. and Alton Pkwy.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16312 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.57

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 91.5 | 185.4 | 393.6 |

TABLE Opening Year - With Project -63
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Walnut Av. between Jamboree Rd. NB and Harvard Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20011 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.74

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 101.4 | 210.8 | 450.5 |

TABLE Opening Year - With Project -64
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Sycamore Av. and Edinger Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28935 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.55

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 73.0 | 131.6 | 270.2 | 575.7 |

TABLE Opening Year - With Project -65
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Auto Mall Dr. and Newport Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 42702 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.80

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 92.5 | 169.4 | 349.5 | 745.4 |

TABLE Opening Year - With Project -66
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: SR-55 between Edinger Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 277763 SPEED (MPH): 80 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 85 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 83.57

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 845.6 | 1814.3 | 3904.6 | 8408.9 |

TABLE Opening Year - With Project -67
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Newport Av. between Edinger Av. and SR-55 NB Ramp

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18411 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.83

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 99.9 | 201.3 | 426.7 |

TABLE Opening Year - With Project -68
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Newport Av. between SR-55 NB Ramp and Valencia Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13805 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.58

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 85.5 | 167.6 | 352.9 |

TABLE Opening Year - With Project -69
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Del Amo Av. between Newport Av. and Edinger Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5812 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.82

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 99.8 | 201.0 |

TABLE Opening Year - With Project -70
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Valencia Av. between Newport Av. and Red Hill Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10141 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.24

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 73.4 | 138.4 | 288.3 |

TABLE Opening Year - With Project -71
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Grand Av. and Red Hill Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23505 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.89

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 64.0 | 114.9 | 235.5 | 501.5 |

TABLE Opening Year - With Project -72
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Dyer Rd. between Red Hill Av. and Pullman St.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 33040 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.37

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 74.4 | 141.0 | 293.9 | 628.5 |

TABLE Opening Year - With Project -73
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Moffett Dr. between Harvard Av. and Park Av.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7251 SPEED (MPH): 35 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.91

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 90.4 | 186.2 |

TABLE Opening Year - With Project -74
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd SB Ramp between Park Av. and Jamboree Rd.
SB.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8006 SPEED (MPH): 30 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.78

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 72.8 | 154.3 |

TABLE Opening Year - With Project -75
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd NB Ramp between Warner Av. and Jamboree Rd.
NB.

NOTES: Tustin Legacy Project - Opening Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10585 SPEED (MPH): 30 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.99

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 87.2 | 185.6 |

TABLE Future Year - No Project -01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Walnut Av. between Tustin Ranch Rd. and Jamboree Rd.
SB.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23873 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.51

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 58.8 | 113.0 | 236.6 | 506.4 |

TABLE Future Year - No Project -02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Walnut Av. between Jamboree Rd. SB. and Jamboree Rd.
NB.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18104 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.31

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 95.5 | 197.5 | 421.5 |

TABLE Future Year - No Project -03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Newport Av. and Del Amo Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 36539 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.12

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 86.7 | 154.5 | 315.9 | 672.3 |

TABLE Future Year - No Project -04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Del Amo Av. and Red Hill Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 40377 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.56

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 90.3 | 163.9 | 337.0 | 718.3 |

TABLE Future Year - No Project -05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Red Hill Av. and Kensington Park Dr.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 31862 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.53

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 82.3 | 142.8 | 289.2 | 614.0 |

TABLE Future Year - No Project -06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Kensington Park Dr. and Jamboree Rd. SB.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27123 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.83

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 77.7 | 130.5 | 260.9 | 552.1 |

TABLE Future Year - No Project -07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Von Karman Av. between Barranca Pkwy. and Alton Pkwy.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 34285 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.53

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 75.7 | 144.2 | 301.1 | 644.2 |

TABLE Future Year - No Project -08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Jamboree Rd. NB and Harvard Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29092 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.13

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 79.6 | 135.7 | 272.8 | 578.2 |

TABLE Future Year - No Project -09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Valencia Av. between Red Hill Av. and Armstrong Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13015 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.59

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 80.7 | 160.4 | 339.1 |

TABLE Future Year - No Project -10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Valencia Av. between Armstrong Av. and Kensington Park Dr.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15528 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.35

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 88.9 | 179.6 | 381.0 |

TABLE Future Year - No Project -11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Valencia Av. between Kensington Park Dr. and Tustin Ranch Rd.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24614 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.36

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 62.3 | 116.5 | 242.0 | 516.9 |

TABLE Future Year - No Project -12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Moffett Dr. between Tustin Ranch Rd. and Park Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14721 SPEED (MPH): 35 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.30

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 68.3 | 139.1 | 295.8 |

TABLE Future Year - No Project -13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Victory Rd. between Tustin Ranch Rd. and Park Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2452 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 57.08

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 65.2 | 117.8 |

TABLE Future Year - No Project -14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Victory Rd. between Red Hill Av. and Armstrong Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11169 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.66

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 76.8 | 146.9 | 307.1 |

TABLE Future Year - No Project -15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Red Hill Av. and Armstrong Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22892 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.04

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 111.6 | 230.8 | 492.7 |

TABLE Future Year - No Project -16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Armstrong Av. and Legacy Rd.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23209 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.10

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 112.5 | 232.9 | 497.2 |

TABLE Future Year - No Project -17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Legacy Rd. and Tustin Ranch Rd.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9684 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.30

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 69.2 | 133.3 | 279.2 |

TABLE Future Year - No Project -18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Tustin Ranch Rd. and Park Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22694 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.00

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 111.0 | 229.5 | 489.9 |

TABLE Future Year - No Project -19
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Park Av. and Jamboree Rd.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23863 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.22

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 61.5 | 114.4 | 237.1 | 506.4 |

TABLE Future Year - No Project -20
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Jamboree Rd. and Harvard Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18673 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.16

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 98.9 | 202.2 | 430.5 |

TABLE Future Year - No Project -21
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Tustin Ranch Rd. and The District

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14790 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.88

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 88.7 | 175.1 | 369.3 |

TABLE Future Year - No Project -22
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Red Hill Av. and Aston St.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 35847 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.65

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 92.7 | 156.6 | 313.7 | 664.3 |

TABLE Future Year - No Project -23
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Aston St. and Armstrong Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 31779 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.13

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 89.2 | 146.7 | 290.6 | 613.5 |

TABLE Future Year - No Project -24
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Armstrong Av. and Von Karman Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 32795 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.27

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 90.0 | 149.2 | 296.4 | 626.4 |

TABLE Future Year - No Project -25
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Von Karman Av. and The District

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 33189 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.32

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 90.4 | 150.1 | 298.7 | 631.3 |

TABLE Future Year - No Project -26
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between The District and Jamboree Rd.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 41395 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.28

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 97.6 | 169.8 | 344.0 | 730.5 |

TABLE Future Year - No Project -27
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Jamboree Rd. and Harvard Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25772 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.22

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 83.9 | 131.5 | 254.7 | 534.5 |

TABLE Future Year - No Project -28
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Alton Pkwy. between Red Hill Av. and Von Karman Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17538 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.38

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 99.4 | 196.1 | 413.6 |

TABLE Future Year - No Project -29
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Alton Pkwy. between Von Karman Av. and Jamboree Rd.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16327 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.07

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 95.7 | 187.5 | 394.6 |

TABLE Future Year - No Project -30
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Alton Pkwy. between Jamboree Rd. and Harvard Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17999 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.49

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 100.8 | 199.4 | 420.7 |

TABLE Future Year - No Project -31
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Edinger Av. and Valencia Rd.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24358 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.80

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 68.2 | 119.1 | 241.8 | 513.7 |

TABLE Future Year - No Project -32
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Valencia Rd. and Victory Rd.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28946 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.55

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 73.0 | 131.7 | 270.3 | 575.8 |

TABLE Future Year - No Project -33
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Victory Rd. and Warner Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26502 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.17

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 70.4 | 125.0 | 255.3 | 543.2 |

TABLE Future Year - No Project -34
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Warner Av. and Carnegie Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27098 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.27

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 71.0 | 126.7 | 259.0 | 551.2 |

TABLE Future Year - No Project -35
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Carnegie Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29455 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.63

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 73.5 | 133.0 | 273.4 | 582.5 |

TABLE Future Year - No Project -36
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Barranca Pkwy. and Alton Pkwy.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 30317 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.75

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 74.4 | 135.3 | 278.5 | 593.8 |

TABLE Future Year - No Project -37
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Armstrong Av. between Valencia Av. and Victory Rd.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5635 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.95

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 96.2 | 196.2 |

TABLE Future Year - No Project -38
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Armstrong Av. between Victory Rd. and Warner Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7946 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.45

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 62.9 | 118.0 | 245.2 |

TABLE Future Year - No Project -39
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Armstrong Av. between Warner Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10493 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.65

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 72.0 | 140.1 | 294.3 |

TABLE Future Year - No Project -40
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Kensington Park Dr. between Edinger Av. and Valencia Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10263 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.29

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 73.8 | 139.5 | 290.5 |

TABLE Future Year - No Project -41
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Walnut Av. and Valencia Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 46230 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.36

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 93.0 | 176.2 | 367.4 | 785.7 |

TABLE Future Year - No Project -42
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Legacy Rd. between Warner Av. and Tustin Ranch Rd.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6676 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.43

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 108.0 | 219.8 |

TABLE Future Year - No Project -43
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Valencia Av. and Moffett Dr.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 38311 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.54

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 85.4 | 157.3 | 325.0 | 693.6 |

TABLE Future Year - No Project -44
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Moffett Dr. and Victory Rd.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 37076 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.40

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 84.2 | 154.2 | 318.2 | 678.7 |

TABLE Future Year - No Project -45
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Victory Rd. and Warner Av N.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 35567 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.22

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 82.7 | 150.4 | 309.7 | 660.2 |

TABLE Future Year - No Project -46
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Warner Av. N. and Warner Av. S.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 32662 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.85

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 79.8 | 143.1 | 293.1 | 624.0 |

TABLE Future Year - No Project -47
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Warner Av. S. and Legacy Rd.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23623 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.44

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 70.8 | 119.0 | 238.0 | 503.6 |

TABLE Future Year - No Project -48
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Legacy Rd. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 33220 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.92

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 80.4 | 144.5 | 296.3 | 631.0 |

TABLE Future Year - No Project -49
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: The District between Park Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11003 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.60

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 76.3 | 145.5 | 304.1 |

TABLE Future Year - No Project -50
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Moffett Dr. and Victory Rd.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4308 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.52

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 84.9 | 166.2 |

TABLE Future Year - No Project -51
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Victory Rd. and Jamboree Rd.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5582 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.65

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 97.6 | 195.9 |

TABLE Future Year - No Project -52
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Jamboree Rd. and Warner Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13007 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.32

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 82.9 | 161.5 | 339.4 |

TABLE Future Year - No Project -53
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Warner Av. and The District

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11304 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.71

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 77.3 | 148.0 | 309.5 |

TABLE Future Year - No Project -54
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd. between Barranca Pkwy. and Alton Pkwy.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 51562 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.42

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 103.5 | 191.3 | 395.8 | 844.8 |

TABLE Future Year - No Project -55
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd. between Walnut Av. and Edinger Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 78343 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.24

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 126.6 | 247.4 | 520.5 | 1115.3 |

TABLE Future Year - No Project -56
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd. between Edinger Av. and Warner Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 76784 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.15

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 125.3 | 244.3 | 513.7 | 1100.5 |

TABLE Future Year - No Project -57
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd. between Warner Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 60160 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.09

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 111.0 | 210.0 | 437.7 | 935.8 |

TABLE Future Year - No Project -58
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Walnut Av. and Edinger Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10256 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.55

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 71.2 | 138.1 | 289.9 |

TABLE Future Year - No Project -59
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Edinger Av. and Moffett Dr.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7903 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.42

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 62.8 | 117.6 | 244.4 |

TABLE Future Year - No Project -60
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Moffett Dr. and Warner Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13227 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.66

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 81.4 | 162.1 | 342.7 |

TABLE Future Year - No Project -61
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Warner Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14063 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.92

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 84.2 | 168.6 | 356.9 |

TABLE Future Year - No Project -62
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Barranca Pkwy. and Alton Pkwy.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16344 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.58

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 91.6 | 185.6 | 394.1 |

TABLE Future Year - No Project -63
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Walnut Av. between Jamboree Rd. NB and Harvard Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22076 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.17

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 107.7 | 224.8 | 480.9 |

TABLE Future Year - No Project -64
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Sycamore Av. and Edinger Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29510 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.64

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 73.6 | 133.2 | 273.7 | 583.3 |

TABLE Future Year - No Project -65
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Auto Mall Dr. and Newport Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 48296 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.34

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 97.7 | 182.4 | 378.7 | 808.8 |

TABLE Future Year - No Project -66
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: SR-55 between Edinger Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 294346 SPEED (MPH): 80 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 85 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 83.82

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 878.6 | 1885.6 | 4058.4 | 8740.3 |

TABLE Future Year - No Project -67
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Newport Av. between Edinger Av. and SR-55 NB Ramp

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21821 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.57

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 110.1 | 224.5 | 477.5 |

TABLE Future Year - No Project -68
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Newport Av. between SR-55 NB Ramp and Valencia Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15145 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.98

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 89.8 | 177.7 | 375.1 |

TABLE Future Year - No Project -69
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Del Amo Av. between Newport Av. and Edinger Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6412 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.25

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 105.5 | 214.1 |

TABLE Future Year - No Project -70
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Valencia Av. between Newport Av. and Red Hill Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12663 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.21

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 81.8 | 158.8 | 333.4 |

TABLE Future Year - No Project -71
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Grand Av. and Red Hill Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27660 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.60

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 68.6 | 126.6 | 261.7 | 558.6 |

TABLE Future Year - No Project -72
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Dyer Rd. between Red Hill Av. and Pullman St.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 36251 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.77

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 77.8 | 149.3 | 312.4 | 668.5 |

TABLE Future Year - No Project -73
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Moffett Dr. between Harvard Av. and Park Av.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11971 SPEED (MPH): 35 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.09

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 62.9 | 122.9 | 258.4 |

TABLE Future Year - No Project -74
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd SB Ramp between Park Av. and Jamboree Rd.
SB.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8752 SPEED (MPH): 30 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.17

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 77.1 | 163.6 |

TABLE Future Year - No Project -75
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd NB Ramp between Warner Av. and Jamboree Rd.
NB.

NOTES: Tustin Legacy Project - Future Year - No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10824 SPEED (MPH): 30 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.09

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 88.4 | 188.3 |

TABLE Future Year - With Project -01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Walnut Av. between Tustin Ranch Rd. and Jamboree Rd.
SB.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24028 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.54

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 59.0 | 113.5 | 237.6 | 508.6 |

TABLE Future Year - With Project -02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Walnut Av. between Jamboree Rd. SB. and Jamboree Rd.
NB.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18144 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.32

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 95.6 | 197.8 | 422.2 |

TABLE Future Year - With Project -03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Newport Av. and Del Amo Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 37146 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.20

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 87.3 | 156.0 | 319.3 | 679.7 |

TABLE Future Year - With Project -04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Del Amo Av. and Red Hill Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 41043 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.63

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 90.9 | 165.5 | 340.6 | 726.1 |

TABLE Future Year - With Project -05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Red Hill Av. and Kensington Park Dr.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 32630 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.63

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 83.0 | 144.8 | 293.7 | 623.8 |

TABLE Future Year - With Project -06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Kensington Park Dr. and Jamboree Rd. SB.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27663 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.92

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 78.3 | 132.0 | 264.2 | 559.3 |

TABLE Future Year - With Project -07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Von Karman Av. between Barranca Pkwy. and Alton Pkwy.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 34927 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.61

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 76.4 | 145.9 | 304.8 | 652.2 |

TABLE Future Year - With Project -08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Jamboree Rd. NB and Harvard Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29258 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.16

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 79.8 | 136.1 | 273.8 | 580.4 |

TABLE Future Year - With Project -09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Valencia Av. between Red Hill Av. and Armstrong Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13391 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.71

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 81.9 | 163.4 | 345.5 |

TABLE Future Year - With Project -10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Valencia Av. between Armstrong Av. and Kensington Park Dr.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15908 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.46

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 90.2 | 182.4 | 387.2 |

TABLE Future Year - With Project -11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Valencia Av. between Kensington Park Dr. and Tustin Ranch Rd.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25275 SPEED (MPH): 40 GRADE: .5

| TRAFFIC DISTRIBUTION PERCENTAGES | | | |
|----------------------------------|-------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.47

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 63.1 | 118.4 | 246.2 | 526.1 |

TABLE Future Year - With Project -12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Moffett Dr. between Tustin Ranch Rd. and Park Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16288 SPEED (MPH): 35 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.74

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 72.4 | 148.5 | 316.2 |

TABLE Future Year - With Project -13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Victory Rd. between Tustin Ranch Rd. and Park Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2705 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 57.50

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 67.9 | 124.9 |

TABLE Future Year - With Project -14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Victory Rd. between Red Hill Av. and Armstrong Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11906 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.94

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 79.3 | 152.8 | 320.2 |

TABLE Future Year - With Project -15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Red Hill Av. and Armstrong Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24240 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.29

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 61.9 | 115.5 | 239.6 | 511.7 |

TABLE Future Year - With Project -16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Armstrong Av. and Legacy Rd.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24691 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.37

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 62.4 | 116.7 | 242.5 | 518.0 |

TABLE Future Year - With Project -17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Legacy Rd. and Tustin Ranch Rd.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9872 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.39

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 69.9 | 134.9 | 282.7 |

TABLE Future Year - With Project -18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Tustin Ranch Rd. and Park Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23556 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.16

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 61.1 | 113.5 | 235.1 | 502.0 |

TABLE Future Year - With Project -19
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Park Av. and Jamboree Rd.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24331 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.31

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 62.0 | 115.7 | 240.1 | 512.9 |

TABLE Future Year - With Project -20
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Jamboree Rd. and Harvard Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19082 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.25

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 100.1 | 205.1 | 436.7 |

TABLE Future Year - With Project -21
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Tustin Ranch Rd. and The District

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15272 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.02

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 90.2 | 178.7 | 377.2 |

TABLE Future Year - With Project -22
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Red Hill Av. and Aston St.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 35998 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.67

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 92.9 | 157.0 | 314.6 | 666.1 |

TABLE Future Year - With Project -23
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Aston St. and Armstrong Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 31954 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.15

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 89.3 | 147.1 | 291.6 | 615.7 |

TABLE Future Year - With Project -24
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Armstrong Av. and Von Karman Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 32936 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.28

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 90.2 | 149.5 | 297.2 | 628.2 |

TABLE Future Year - With Project -25
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Von Karman Av. and The District

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 33250 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.33

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 90.4 | 150.3 | 299.0 | 632.1 |

TABLE Future Year - With Project -26
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between The District and Jamboree Rd.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 41834 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.32

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 98.0 | 170.8 | 346.3 | 735.6 |

TABLE Future Year - With Project -27
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Barranca Pkwy. between Jamboree Rd. and Harvard Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25847 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 65 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.23

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 84.0 | 131.7 | 255.2 | 535.5 |

TABLE Future Year - With Project -28
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Alton Pkwy. between Red Hill Av. and Von Karman Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17617 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.40

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 99.6 | 196.7 | 414.8 |

TABLE Future Year - With Project -29
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Alton Pkwy. between Von Karman Av. and Jamboree Rd.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16332 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.07

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 95.7 | 187.5 | 394.7 |

TABLE Future Year - With Project -30
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Alton Pkwy. between Jamboree Rd. and Harvard Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18171 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.53

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 101.3 | 200.6 | 423.4 |

TABLE Future Year - With Project -31
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Edinger Av. and Valencia Rd.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24542 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.84

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 68.4 | 119.6 | 243.0 | 516.2 |

TABLE Future Year - With Project -32
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Valencia Rd. and Victory Rd.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29745 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.67

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 73.8 | 133.8 | 275.1 | 586.3 |

TABLE Future Year - With Project -33
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Victory Rd. and Warner Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26705 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.20

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 70.6 | 125.6 | 256.6 | 545.9 |

TABLE Future Year - With Project -34
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Warner Av. and Carnegie Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27651 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.35

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 71.6 | 128.2 | 262.4 | 558.7 |

TABLE Future Year - With Project -35
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Carnegie Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29933 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.70

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 74.0 | 134.3 | 276.2 | 588.8 |

TABLE Future Year - With Project -36
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Barranca Pkwy. and Alton Pkwy.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 30566 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.79

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 74.6 | 136.0 | 280.0 | 597.0 |

TABLE Future Year - With Project -37
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Armstrong Av. between Valencia Av. and Victory Rd.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5714 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.01

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 97.0 | 198.0 |

TABLE Future Year - With Project -38
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Armstrong Av. between Victory Rd. and Warner Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8037 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.49

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 63.3 | 118.8 | 247.1 |

TABLE Future Year - With Project -39
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Armstrong Av. between Warner Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10701 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.74

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 72.8 | 141.8 | 298.1 |

TABLE Future Year - With Project -40
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Kensington Park Dr. between Edinger Av. and Valencia Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10623 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.44

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 75.0 | 142.4 | 297.2 |

TABLE Future Year - With Project -41
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Walnut Av. and Valencia Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 47756 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.50

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 94.5 | 179.8 | 375.3 | 802.8 |

TABLE Future Year - With Project -42
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Legacy Rd. between Warner Av. and Tustin Ranch Rd.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7512 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.94

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 64.3 | 115.6 | 237.1 |

TABLE Future Year - With Project -43
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Valencia Av. and Moffett Dr.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 39464 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.67

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 86.5 | 160.1 | 331.4 | 707.4 |

TABLE Future Year - With Project -44
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Moffett Dr. and Victory Rd.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 38487 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.56

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 85.6 | 157.7 | 326.0 | 695.7 |

TABLE Future Year - With Project -45
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Victory Rd. and Warner Av N.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 36552 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.34

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 83.7 | 152.9 | 315.2 | 672.3 |

TABLE Future Year - With Project -46
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Warner Av. N. and Warner Av. S.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 33289 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.93

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 80.4 | 144.7 | 296.7 | 631.9 |

TABLE Future Year - With Project -47
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Warner Av. S. and Legacy Rd.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24008 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.51

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 71.2 | 120.1 | 240.4 | 509.1 |

TABLE Future Year - With Project -48
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Tustin Ranch Rd. between Legacy Rd. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 34057 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 50 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.03

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 81.2 | 146.6 | 301.1 | 641.5 |

TABLE Future Year - With Project -49
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: The District between Park Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11536 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.80

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 78.1 | 149.9 | 313.7 |

TABLE Future Year - With Project -50
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Moffett Dr. and Victory Rd.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4764 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.96

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 89.5 | 177.1 |

TABLE Future Year - With Project -51
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Victory Rd. and Jamboree Rd.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5947 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.92

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 101.1 | 204.0 |

TABLE Future Year - With Project -52
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Jamboree Rd. and Warner Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13354 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.44

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 84.0 | 164.2 | 345.3 |

TABLE Future Year - With Project -53
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Park Av. between Warner Av. and The District

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11569 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.81

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 78.2 | 150.1 | 314.2 |

TABLE Future Year - With Project -54
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd. between Barranca Pkwy. and Alton Pkwy.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 52087 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.46

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 103.9 | 192.4 | 398.4 | 850.5 |

TABLE Future Year - With Project -55
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd. between Walnut Av. and Edinger Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 78469 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.24

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 126.7 | 247.7 | 521.0 | 1116.5 |

TABLE Future Year - With Project -56
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd. between Edinger Av. and Warner Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 76931 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.16

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 125.4 | 244.6 | 514.3 | 1101.9 |

TABLE Future Year - With Project -57
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd. between Warner Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 60331 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.10

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 111.2 | 210.4 | 438.5 | 937.6 |

TABLE Future Year - With Project -58
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Walnut Av. and Edinger Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10350 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.59

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 71.5 | 138.9 | 291.6 |

TABLE Future Year - With Project -59
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Edinger Av. and Moffett Dr.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8006 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.48

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 63.2 | 118.5 | 246.5 |

TABLE Future Year - With Project -60
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Moffett Dr. and Warner Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13300 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.68

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 81.6 | 162.7 | 344.0 |

TABLE Future Year - With Project -61
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Warner Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14126 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.94

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 84.4 | 169.0 | 357.9 |

TABLE Future Year - With Project -62
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Harvard Av. between Barranca Pkwy. and Alton Pkwy.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16392 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.59

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 91.7 | 185.9 | 394.9 |

TABLE Future Year - With Project -63
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Walnut Av. between Jamboree Rd. NB and Harvard Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22142 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.18

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 107.9 | 225.3 | 481.8 |

TABLE Future Year - With Project -64
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Red Hill Av. between Sycamore Av. and Edinger Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29750 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 45 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.67

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 73.8 | 133.8 | 275.1 | 586.4 |

TABLE Future Year - With Project -65
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Edinger Av. between Auto Mall Dr. and Newport Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 48869 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 55 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.39

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 98.2 | 183.7 | 381.6 | 815.2 |

TABLE Future Year - With Project -66
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: SR-55 between Edinger Av. and Barranca Pkwy.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 294440 SPEED (MPH): 80 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 85 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 83.82

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 878.8 | 1886.0 | 4059.3 | 8742.2 |

TABLE Future Year - With Project -67
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Newport Av. between Edinger Av. and SR-55 NB Ramp

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22152 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.63

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 111.0 | 226.7 | 482.3 |

TABLE Future Year - With Project -68
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Newport Av. between SR-55 NB Ramp and Valencia Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15974 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.21

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 92.4 | 183.8 | 388.5 |

TABLE Future Year - With Project -69
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Del Amo Av. between Newport Av. and Edinger Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6470 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.29

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 106.1 | 215.4 |

TABLE Future Year - With Project -70
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Valencia Av. between Newport Av. and Red Hill Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13521 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.49

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 84.6 | 165.5 | 348.1 |

TABLE Future Year - With Project -71
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Warner Av. between Grand Av. and Red Hill Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28305 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.70

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 69.3 | 128.3 | 265.7 | 567.2 |

TABLE Future Year - With Project -72
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Dyer Rd. between Red Hill Av. and Pullman St.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 36627 SPEED (MPH): 40 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 40 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.82

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 78.2 | 150.2 | 314.5 | 673.1 |

TABLE Future Year - With Project -73
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Moffett Dr. between Harvard Av. and Park Av.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13256 SPEED (MPH): 35 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.53

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 66.4 | 131.0 | 276.3 |

TABLE Future Year - With Project -74
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd SB Ramp between Park Av. and Jamboree Rd.
SB.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9012 SPEED (MPH): 30 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | | | |
| | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | | | |
| | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | | | |
| | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.30

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 78.6 | 166.8 |

TABLE Future Year - With Project -75
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/09/2024

ROADWAY SEGMENT: Jamboree Rd NB Ramp between Warner Av. and Jamboree Rd.
NB.

NOTES: Tustin Legacy Project - Future Year - With Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11012 SPEED (MPH): 30 GRADE: .5

| | TRAFFIC DISTRIBUTION PERCENTAGES | | |
|----------|----------------------------------|---------|-------|
| | DAY | EVENING | NIGHT |
| | --- | ----- | ----- |
| AUTOS | 75.51 | 12.57 | 9.34 |
| M-TRUCKS | 1.56 | 0.09 | 0.19 |
| H-TRUCKS | 0.64 | 0.02 | 0.08 |

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.17

| DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL | | | |
|---|---------|---------|---------|
| 70 CNEL | 65 CNEL | 60 CNEL | 55 CNEL |
| ----- | ----- | ----- | ----- |
| 0.0 | 0.0 | 89.4 | 190.5 |