## Technical Appendix C

Noise Impact Analysis Urban Crossroads, Inc. May 29, 2012



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# NORTH NEWPORT CENTER PLANNED COMMUNITY NOISE IMPACT ANALYSIS CITY OF NEWPORT BEACH, CALIFORNIA

June 6, 2012

JN:08211-04 Noise Report

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# NORTH NEWPORT CENTER PLANNED COMMUNITY NOISE IMPACT ANALYSIS CITY OF NEWPORT BEACH, CALIFORNIA

#### 1.0 EXECUTIVE SUMMARY

This noise study has been completed to determine the noise impacts associated with the development of the proposed North Newport Center Planned Community (NNCPC) (referred to as "Project"). The purpose of this noise assessment is to evaluate the off-site project traffic noise impacts and to recommend noise mitigation measures, if necessary, to minimize the potential project impacts.

#### 1.1 <u>Project Overview</u>

The Project involves increasing the residential development allocation within the NNCPC from 430 dwelling units to a total of 524 dwelling units (increase of 94 units). The NNCPC was originally adopted in 2007, for which an addendum to the City of Newport Beach General Plan 2006 Update Final Program EIR was prepared.

#### 1.2 Off-Site Transportation Noise Analysis

Traffic generated by the proposed Project will influence the traffic noise levels in surrounding off-site areas. To quantify the off-site traffic noise impacts on the surrounding off-site areas, the changes in traffic noise levels on 73 roadway segments surrounding the Project site were estimated based on the change in the average daily traffic volumes. The traffic noise levels provided in this analysis are based on the traffic forecasts from the *North Newport Center San Joaquin Plaza TPO Traffic Analysis* prepared by Stantec in May 2012.

To assess the off-site noise level impacts associated with the proposed project, noise contour boundaries were developed for Existing and Year 2016 traffic conditions. In order for an off-site transportation related noise impact to be considered a significant impact, the project traffic must create a significant noise level increase as defined by the City of Newport Beach General Plan Noise Policy N 1.8. This analysis shows that the project will not generate a substantial permanent off-site traffic noise level increase for existing sensitive uses or expose persons to noise levels in excess of the standards established by the City of Newport Beach General Plan Noise Policy N 1.8.



#### 2.0 Introduction

This noise study has been completed to determine the noise impacts associated with the construction and operation of the proposed North Newport Center Planned Community.

#### 2.1 Purpose of Report

The purpose of this report is to satisfy CEQA Guidelines section 15168(c), which requires the City to analyze whether subsequent activities regarding the North Newport Center zoning require an additional environmental document beyond the Final Environmental Impact Report ("EIR") for the City of Newport Beach General Plan 2006 Update (State Clearinghouse No. 200601119) ("General Plan EIR"), and the first North Newport Center Addendum to the Environmental Impact Report for the City of Newport Beach General Plan 2006 Update, approved by Resolution No. 2007-79 on December 11, 2007. The General Plan EIR was certified by the Newport Beach City Council on July 25, 2006, as adequately addressing the potential environmental impacts associated with the buildout of the City of Newport Beach, inclusive of North Newport Center. Pursuant to CEQA Guidelines section 15168(c), this report analyzes whether the Project would have effects that were not examined in the General Plan EIR and confirms that the Project will not result in new effects and will not require new mitigation measures so that the City can determine whether it is appropriate to approve the Project as within the scope of the General Plan EIR. As required by CEQA Guidelines section 15168(e), this report also analyzes whether: (i) the Project is within the scope of the General Plan 2006 Update; and (ii) the General Plan EIR adequately describes the subsequent activity for the purposes of CEQA.

CEQA Guidelines section 15164(a) states: "The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR have occurred." Pursuant to CEQA Guidelines section 15162, no subsequent EIR may be required for the project unless the City determines, on the basis of substantial evidence, that one or more of the following conditions are met:



- (a) When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:
  - (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
  - (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
  - (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR, was certified as complete or the Negative Declaration was adopted, shows any of the following:
    - (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
    - (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR:
    - (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
    - (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

In order to provide the analysis necessary for the City to make its determination under CEQA Guidelines section 15168(c), this noise study briefly describes the proposed Project, provides information regarding noise fundamentals, describes the local noise guidelines, provides the study methods and procedures for traffic noise analysis, and evaluates the future off-site exterior noise environment. Additional information beyond that required for the City's determination is included for public information. This study also satisfies the City of Newport Beach noise standards requirements.

#### 2.2 <u>Project Description</u>

The NNCPC Development Plan currently allows for 430 multi-family residential units to be developed in areas of the NNCPC designated MU-H3 by the General Plan. In comparison, the General Plan allows a maximum of 450 units in the MU-H3 category throughout the Newport



Center Statistical Area. In other words, of the 450 MU-H3 residential units allowed by the General Plan in the Newport Center Statistical Area, 430 are specifically allocated to be developed within the areas of the NNCPC designated by the NNCPC Development Plan as Block 500, Block 600 and San Joaquin Plaza. The remaining 20 units are allowed to be developed in any MU-H3 designated area in the Newport Center Statistical Area. Five (5) MU-H3 units have been assigned to the Golf Realty Fund Tennis Club development and the other 15 MU-H3 units are not assigned to any particular property.

In addition, certain areas of the City are identified on the General Plan Land Use Map as "Anomaly Locations," where a maximum development intensity is allowed pursuant to General Plan Tables LU1 and LU2. Anomaly Location 43 in the Newport Center Statistical Area (Statistical Area L1) is developed with a 532 room resort hotel presently operated by Marriott Hotels and Resorts. General Plan Table LU2 allows a maximum of 611 hotel rooms in Anomaly Location 43; therefore, 79 hotel rooms allowed by the General Plan are un-built. The proposed Project would convert the 79 un-built hotel rooms to 79 multi-family residential units and then transfer them to the San Joaquin Plaza portion of the NNCPC.

Under existing conditions, Block 500, Block 600, and San Joaquin Plaza are developed with commercial/office land uses and the Island Hotel. No multi-family residential units are constructed in these areas, although the NNCPC Development Plan allows for up to 430 residential units. Thus, the City's General Plan and NNCPC Development Plan currently allow for the existing land uses in Block 500, Block 600 and San Joaquin Plaza to be supplemented by or partially replaced with multi-family residential housing.

The Project Applicant proposes an amendment to the NNCPC Development Plan to increase the allowable residential development intensity by 94 units (comprising the 15 un-assigned and un-built multi-family units and the 79 hotel units that would be converted to multi-family units), and to assign those 94 units, along with 430 units already allocated to the NNCCP, to the portion of the NNCCP designated as San Joaquin Plaza.



No specific development project is proposed at this time. A proposal to develop a specific residential project in the San Joaquin Plaza would be subject to the procedures for development specified in the NNCPC Development Plan. There would be no change to the boundaries of the NNCPC Development Plan area or any constituent blocks or sub-districts, and there would be no change in the permitted types of land uses, development regulations, or design guidelines resulting from approval of the proposed NNCPC Development Plan Amendment.

Since no specific development is proposed at this time, and the exact location of the units is unknown, a specific calculation of construction noise levels impacts that may be associated with future construction activities is not possible and is not provided. However, construction activities would be consistent with the assumptions made in the General Plan EIR and would not result in any new impacts or increase the severity of any impacts previously identified in the General Plan EIR.

#### 2.3 General Plan Analysis of Transportation-Related Noise Impacts

Operational noise impacts associated with implementation of the General Plan were previously evaluated as part of the General Plan EIR, which identified significant and unavoidable impacts due to the exposure of existing development to future traffic related noise that would exceed the General Plan noise standards and/or would represent a substantial permanent increase in ambient noise levels. The General Plan EIR notes that compliance with General Plan Goal N-2 (Transportation Noise) would reduce this impact, but not to a level below significant.

Although the proposed Project would involve the allocation of 94 additional units to the San Joaquin Plaza, implementation of the proposed Project would result in the reduction of traffic with buildout of the General Plan. Specifically, the TPO Traffic Analysis shows that the proposed Project, which would convert 79 hotel units to multi-family units, would result in a net reduction in average daily traffic (ADT) of 315 trips, including 17 fewer a.m. peak hour trips and 17 fewer p.m. peak hour trips. Due to the reduction in traffic volumes generated by the Project compared to the assumptions made in the General Plan EIR, the proposed Project would not result in a substantial increase in the significant and unavoidable transportation noise-related impacts identified in the General Plan EIR.



To substantiate this conclusion, future noise conditions for study area roadway segments were calculated based on the TPO Traffic Analysis to determine whether traffic generated by the Project would cause or contribute to transportation-related noise levels that could exceed the General Plan standards and/or result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project. The results are presented in Section 4.0 of this report.



#### 3.0 Noise Fundamentals

Noise has been simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health.

#### 3.1 Range of Noise

Since the range of sound that the human ear can detect is so large, the scale used to measure sound intensity is a scale based on multiples of 10, the logarithmic scale. The unit of measure in which a sound intensity is described is the decibel (dB). Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. However, due to the internal mechanism of the human ear and how it receives and processes noise, when two sound sources of equal intensity or power are measured together, their combined effect (intensity level) is 3 dBA higher than the level of either separately. Thus, two 72 dBA cars together measure 75 dBA under ideal conditions.

The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA at approximately 100 feet, which can cause serious discomfort. Exhibit 3-A presents a summary of the typical noise levels and their subjective loudness and effects that are described in more detail below.

#### 3.2 Effects of Noise

Harmful effects of noise can include speech interference; sleep disruption and loss of hearing. High background noise levels can affect performance and learning processes through distraction, reduced accuracy, increased fatigue, annoyance and irritability, the inability to concentrate, and sleep prevention.

Several factors determine whether a particular noise will interfere with sleep. These factors include the noise level and characteristics, the stage of sleep, the individual's age and motivation to waken.



# TYPICAL NOISE LEVELS AND THEIR SUBJECTIVE LOUDNESS AND EFFECTS

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140		
NEAR JET ENGINE		130	INTOLERABLE OR	
		120	DEAFENING	HEARING LOSS
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100		
GAS LAWN MOWER AT 1m (3 ft)		90	VERY NOISY	
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	SPEECH INTERFERENCE
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		DISTURBANCE
QUIET SUBURBAN NIGHTTIME	LIBRARY	30		
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20	FAINT	
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	NO EFFECT
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0	VERT FAINT	

SOURCE: NOISE TECHNICAL SUPPLEMENT BY CALTRANS



#### 3.3 <u>Noise Descriptors</u>

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most commonly used figure is the equivalent level (Leq). Leq represents a steady sound level containing the same total energy as a time-varying level over a given measurement interval. Leq's may represent any desired length of time; however, one hour is the most commonly used in environmental work. Consequently, Leq's can vary depending upon the time of day. In traffic noise measurements, the noisiest hour of the day is considered the benchmark of a road's noise emissions; therefore, the peak hour Leq is the noise metric used by Caltrans for all traffic noise impact analyses.

Peak hour noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour levels may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite twenty-four hour noise level, is utilized.

The Community Noise Equivalent Level (CNEL) is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of five decibels to sound levels in the evening from 7 p.m. to 10 p.m., and the addition of ten decibels to sound levels at night between 10 p.m. and 7 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when sound appears louder and it is weighted accordingly. CNEL does not represent the actual sound level heard at any particular time, but rather represents the total sound exposure.

#### 3.4 Traffic Noise Prediction

According to the *Highway Traffic Noise Analysis and Abatement Policy and Guidance*, provided by the Federal Highway Administration, the level of traffic noise depends on three primary factors: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the vehicle mix within the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and a greater number of trucks. A doubling of the traffic volume, assuming that the speed and vehicle mix do not change, results in a noise level increase of 3 dBA. The



vehicle mix on a given roadway may also have an effect on community noise levels. As the number of medium and heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise level impacts will increase. Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires on the roadway.

#### 3.5 Ground Absorption

To account for the ground-effect attenuation (absorption), two types of site conditions are commonly used in traffic noise models, soft site and hard site conditions. Soft site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. A drop-off rate of 4.5 dBA per doubling of distance is typically observed over soft ground with landscaping, as compared with a 3.0 dBA drop-off rate over hard ground such as asphalt, concrete, stone and very hard packed earth. Caltrans research has shown that the use of soft site conditions is more appropriate for the application of the FHWA traffic noise prediction model used in this analysis.

#### 3.6 Noise Control

Noise control is the process of obtaining an acceptable noise environment for a particular observation point or receptor by controlling the noise source, transmission path, receptor, or all three. This concept is known as the source-path-receptor concept. In general, noise control measures can be applied to any and all of these three elements.

#### 3.7 <u>Noise Barrier Attenuation</u>

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receptor. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the view of the noise source.

#### 3.8 Community Response to Noise

Approximately ten (10) percent of the population has a very low tolerance for noise and will object to any noise not of their own making. Consequently, even in the quietest environment,



some complaints will occur. Another 25 percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment.

Despite this variability in behavior on an individual level, the population as a whole can be expected to exhibit the following responses to changes in noise levels. An increase or decrease of 1.0 dBA cannot be perceived except in carefully controlled laboratory experiments, a change of 3.0 dBA are considered "barely perceptible," and changes of 5 dBA are considered "readily perceptible."

#### 3.9 Land Use Compatibility With Noise

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches and residences are considered to be more sensitive to noise intrusion than are commercial or industrial activities. Ambient noise levels can also affect the perceived desirability or livability of a development. For these reasons, land use compatibility with the noise environment is an important consideration in the planning and design process.



#### 4.0 Noise Standards

Local noise guidelines are often based on the broader guidelines established by state and federal agencies. This section describes the regulatory setting for the proposed North Newport Center Planned Community project.

#### 4.1 Transportation Noise Standards

The City of Newport Beach General Plan Noise Element specifies the maximum noise levels allowable for new developments impacted by transportation noise sources such as arterial roads, freeways, airports and railroads. For the purposes of this project, the noise impacts associated with traffic are controlled by the General Plan Noise Element.

The General Plan standards are derived from standards contained in the *General Plan Guidelines*, a publication of the California Office of Planning and Research. These standards are used by many California cities and counties. The Noise Element includes standards for land use compatibility for community noise exposure. For noise sensitive uses such as schools and single-family homes, exterior noise levels ranging from 60 to 65 dBA CNEL are considered normally compatible. According the Noise Element, the 60 dBA CNEL contour defines the Noise Referral Zone. This is the noise level for which noise considerations should be included when making land use policy decisions that effect existing and proposed noise-sensitive developments. The 65 dBA CNEL contour describes the area for which new noise sensitive developments will be permitted only if appropriate mitigation measures are included.

#### 4.2 Significant Noise Impact Criteria

Noise Policy N 1.8 requires the employment of noise mitigation measures for existing sensitive uses when a significant noise impact is identified. A significant noise impact occurs when there is a substantial increase in the ambient CNEL produced by new development impacting existing sensitive uses. For purposes of analysis in this report (and as required by General Plan Policy N 1.8), off-site transportation-related noise increases would be considered "substantial" if Project-related traffic results in any of the following: a noise level increase of 3 dBA CNEL where the existing without project ambient noise levels range from 55 to 60 dBA CNEL; a noise



level increase of 2 dBA CNEL where the existing without project ambient noise levels range from 60 to 65 dBA CNEL; a noise level increase of 1 dBA CNEL where the existing without project ambient noise levels range from 65 to 75 dBA CNEL; and/or any off-site transportation project related noise level increase where the existing without project ambient noise levels are over 75 dBA CNEL is considered a significant impact. If the Project's transportation-related noise increases are substantial and impact sensitive receptors that were previously identified by the General Plan EIR as being impacted by noise, then the Project's contribution would be considered to comprise a substantial increase in the severity of a significant effect (CEQA Guidelines §15162(3)(b)). If the Project's transportation-related noise increases are substantial and impact sensitive receptors that were not previously identified by the General Plan EIR as being impacted by traffic-related noise, then the Project's noise contribution would be considered a significant effect not discussed in the General Plan EIR (CEQA Guidelines §15162(3)(a)).



#### 5.0 METHODS AND PROCEDURES

The following section outlines the methods and procedures used to model and analyze the future traffic noise environment.

#### 5.1 FHWA Traffic Noise Prediction Model

The projected roadway noise impacts from vehicular traffic were projected using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108 (the "FHWA Model"). The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period.

#### 5.2 <u>Traffic Noise Prediction Model Inputs</u>

Table 5-1 presents the FHWA Traffic Noise Prediction Model roadway parameters used in this analysis. Soft site conditions were used to develop the noise contours to analyze the traffic noise impacts to the study area. Soft site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation.

The Existing and Year 2016 average daily traffic volumes used for this study and presented in Table 5-2 were provided by the *North Newport Center San Joaquin Plaza TPO Traffic Analysis* prepared by Stantec in May 2012.<sup>1</sup>

Table 5-3 presents the hourly traffic flow distributions (vehicle mix) used for this analysis. The vehicle mix provides the hourly distribution percentages of automobile, medium trucks, and heavy trucks for input into the FHWA Model.



#### Table 5-1 (1 of 2)

#### **Off-Site Roadway Parameters**

Roadway	Segment	Roadway Classification <sup>1</sup>	Lanes	Vehicle Speed (MPH)
Macarthur	South of Bonita Canyon	Major Arterial	6	45
Macarthur	North of San Joaquin Hills	Major Arterial	6	45
Macarthur	South of San Joaquin Hills	Major Arterial	6	45
Macarthur	North of San Miguel	Major Arterial	6	45
Macarthur	South of San Miguel	Major Arterial	6	45
Macarthur	North of Coast Highway	Major Arterial	6	45
San Joaquin Hills	West of Jamboree	Major Arterial	6	45
San Joaquin Hills	East of Jamboree	Major Arterial	6	45
San Joaquin Hills	West of Santa Cruz	Major Arterial	6	45
San Joaquin Hills	East of Santa Cruz	Major Arterial	6	45
San Joaquin Hills	West of Santa Rosa	Major Arterial	6	45
San Joaquin Hills	East of Santa Rosa	Major Arterial	6	45
San Joaquin Hills	West of Macarthur	Major Arterial	6	45
San Joaquin Hills	East of Macarthur	Major Arterial	6	45
Coast Highway	West of Jamboree	Major Arterial	6	45
Coast Highway	East of Jamboree	Major Arterial	6	45
Coast Highway	West of Newport CTR	Major Arterial	6	45
Coast Highway	East of Newport CTR	Major Arterial	6	45
Coast Highway	West of Avacado	Major Arterial	6	45
Coast Highway	East of Avacado	Major Arterial	6	45
Coast Highway	West of Macarthur	Major Arterial	6	45
Coast Highway	East of Macarthur	Major Arterial	6	45
Jamboree	North of Eastbluff	Major Arterial	6	45
Jamboree	Eastbluff to San Joaquin Hills	Major Arterial	6	45
Jamboree	South of San Joaquin Hills	Major Arterial	6	45
Jamboree	North of Santa Barbara	Major Arterial	6	45
Jamboree	South of Santa Barbara	Major Arterial	6	45
Jamboree	North of Coast Highway	Major Arterial	6	45
Jamboree	South of Coast Highway	Major Arterial	6	45
Newport CTR	West of Newport CTR	Major Arterial	6	45
Newport CTR	South of Santa Barbara	Major Arterial	6	45
Newport CTR	North of Santa Barbara	Major Arterial	6	45
Newport CTR	South of Santa Cruz	Major Arterial	6	45
Newport CTR	North of Santa Cruz	Major Arterial	6	45
Newport CTR	North of Santa Rosa	Major Arterial	6	45
Newport CTR	South of Santa Rosa	Major Arterial	6	45
Newport CTR	North of San Miguel	Major Arterial	6	45
Newport CTR	South of San Miguel	Major Arterial	6	45
Newport CTR	East of Newport CTR	Major Arterial	6	45



#### Table 5-1 (2 of 2)

#### **Off-Site Roadway Parameters**

Roadway	Segment	Roadway Classification <sup>1</sup>	Lanes	Vehicle Speed (MPH)
Newport CTR	South of Newport CTR (Circle	Major Arterial	6	45
Newport CTR	North of Coast Highway	Major Arterial	6	45
Macarthur	North of Bonita Canyon	Major Arterial	6	45
Eastbluff/Ford/Bonita Cyn	West of Jamboree	Primary Arterial	4	45
Eastbluff/Ford/Bonita Cyn	East of Jamboree	Primary Arterial	4	45
Eastbluff/Ford/Bonita Cyn	West of Bonita Canyon	Primary Arterial	4	45
Eastbluff/Ford/Bonita Cyn	East of Bonita Canyon	Primary Arterial	4	45
San Miguel	West of Newport CTR	Primary Arterial	4	45
San Miguel	East of Newport CTR	Primary Arterial	4	45
San Miguel	West of Avacado	Primary Arterial	4	45
San Miguel	East of Avacado	Primary Arterial	4	45
San Miguel	West of Macarthur	Primary Arterial	4	45
San Miguel	East of Macarthur	Primary Arterial	4	45
Santa Cruz	North of San Joaquin Hills	Primary Arterial	4	45
Santa Cruz	Souh of San Joaquin Hills	Primary Arterial	4	45
Santa Cruz	North of San Clemente	Primary Arterial	4	45
Santa Cruz	South of San Clemente	Primary Arterial	4	45
Santa Cruz	North of Newport CTR	Primary Arterial	4	45
Santa Cruz	South of Newport CTR	Primary Arterial	4	45
Santa Rosa	North of San Joaquin Hills	Primary Arterial	4	45
Santa Rosa	South of San Joaquin Hills	Primary Arterial	4	45
Santa Rosa	North of Newport CTR	Primary Arterial	4	45
Santa Rosa	South of Newport CTR	Primary Arterial	4	45
San Clemente	East of Santa Barbara	Secondary	4	40
San Clemente	West of Santa Cruz	Secondary	4	40
Santa Barbara	West of Jamboree	Secondary	4	40
Santa Barbara	East of Jamboree	Secondary	4	40
Santa Barbara	North of San Clemente	Secondary	4	40
Santa Barbara	South of San Clemente	Secondary	4	40
Santa Barbara	West of Newport CTR	Secondary	4	40
Santa Barbara	East of Newport CTR	Secondary	4	40
Avocado	North of San Miguel	Secondary	4	40
Avocado	South of San Miguel	Secondary	4	40
Avocado	North of Coast Highway	Secondary	4	40

<sup>&</sup>lt;sup>1</sup> According to the City of Newport Beach General Plan Circulation Element.



#### Table 5-2 (1 of 3)

#### **Average Daily Traffic Volumes (1000's)**

		Average Daily Traffic (1,000's)			
		Exi	sting	Year	2016
Roadway	Segment	No Project	With Project	No Project	With Project
Macarthur	South of Bonita Canyon	61.4	61.5	69.1	69.2
Macarthur	North of San Joaquin Hills	61.4	61.5	68.1	68.1
Macarthur	South of San Joaquin Hills	38.8	38.8	43.4	43.4
Macarthur	North of San Miguel	34.8	34.8	38.8	38.8
Macarthur	South of San Miguel	28.6	28.6	32.4	32.4
Macarthur	North of Coast Highway	28.7	28.7	32.5	32.5
San Joaquin Hills	West of Jamboree	4.8	4.8	5.0	5.0
San Joaquin Hills	East of Jamboree	17.7	17.9	20.3	20.4
San Joaquin Hills	West of Santa Cruz	21.9	22.0	23.7	23.7
San Joaquin Hills	East of Santa Cruz	13.7	13.8	14.9	15.0
San Joaquin Hills	West of Santa Rosa	15.7	15.8	17.2	17.3
San Joaquin Hills	East of Santa Rosa	21.6	21.7	22.8	22.9
San Joaquin Hills	West of Macarthur	21.2	21.3	23.5	23.6
San Joaquin Hills	East of Macarthur	20.6	20.6	21.3	21.3
Coast Highway	West of Jamboree	60.0	60.0	71.5	71.6
Coast Highway	East of Jamboree	47.0	47.0	58.3	58.3
Coast Highway	West of Newport CTR	43.6	43.6	54.1	54.1
Coast Highway	East of Newport CTR	35.7	35.8	45.2	45.3
Coast Highway	West of Avacado	34.4	34.5	43.8	43.8
Coast Highway	East of Avacado	36.3	36.4	45.0	45.1
Coast Highway	West of Macarthur	36.4	36.5	41.8	45.3
Coast Highway	East of Macarthur	5.7	50.3	61.7	61.8
Jamboree	North of Eastbluff	25.5	43.6	52.2	52.4
Jamboree	Eastbluff to San Joaquin Hills	53.6	53.7	63.0	63.2
Jamboree	South of San Joaquin Hills	36.0	36.0	43.0	43.1
Jamboree	North of Santa Barbara	38.5	38.6	45.1	45.2
Jamboree	South of Santa Barbara	34.5	34.6	41.0	41.1
Jamboree	North of Coast Highway	32.0	32.1	38.6	38.7
Jamboree	South of Coast Highway	12.2	12.2	12.9	12.9
Newport CTR	West of Newport CTR	7.0	7.0	7.3	7.3
Newport CTR	South of Santa Barbara	7.7	7.7	7.9	7.9
Newport CTR	North of Santa Barbara	6.5	6.5	6.9	6.9
Newport CTR	South of Santa Cruz	6.0	6.0	6.3	6.3
Newport CTR	North of Santa Cruz	5.6	5.6	5.8	5.8
Newport CTR	North of Santa Rosa	6.5	6.5	7.3	7.3



#### Table 5-2 (2 of 3)

#### **Average Daily Traffic Volumes (1000's)**

		Average Daily Traffic (1,000's)					
		Exis	Existing Year 2016				
Roadway	Segment	No Project	With Project	No Project	With Project		
Newport CTR	South of Santa Rosa	9.1	9.2	10.0	10.0		
Newport CTR	North of San Miguel	7.2	9.2	7.6	7.6		
Newport CTR	South of San Miguel	10.6	10.6	10.9	10.9		
Newport CTR	East of Newport CTR	8.8	8.8	9.1	9.1		
Newport CTR	South of Newport CTR (Circle	12.9	12.9	14.2	14.2		
Newport CTR	North of Coast Highway	14.9	14.9	16.4	16.4		
Macarthur	North of Bonita Canyon	72.9	72.9	80.4	80.5		
Eastbluff/Ford/Bonita Cyn	West of Jamboree	14.4	14.4	15.3	15.3		
Eastbluff/Ford/Bonita Cyn	East of Jamboree	11.5	11.5	12.2	12.3		
Eastbluff/Ford/Bonita Cyn	West of Bonita Canyon	9.9	10.0	10.6	10.6		
Eastbluff/Ford/Bonita Cyn	East of Bonita Canyon	37.6	37.7	39.3	39.4		
San Miguel	West of Newport CTR	7.8	7.8	9.1	9.1		
San Miguel	East of Newport CTR	12.7	12.7	14.4	14.4		
San Miguel	West of Avacado	16.4	16.4	18.1	18.1		
San Miguel	East of Avacado	24.3	24.3	26.8	26.8		
San Miguel	West of Macarthur	22.1	22.1	25.0	25.0		
San Miguel	East of Macarthur	11.8	11.8	12.5	12.5		
Santa Cruz	North of San Joaquin Hills	1.7	1.7	1.7	1.7		
Santa Cruz	Souh of San Joaquin Hills	12.0	13.2	12.5	12.7		
Santa Cruz	North of San Clemente	11.7	11.8	12.3	12.4		
Santa Cruz	South of San Clemente	9.3	9.4	9.9	10.0		
Santa Cruz	North of Newport CTR	8.9	9.0	9.5	9.5		
Santa Cruz	South of Newport CTR	4.3	4.3	4.6	4.6		
Santa Rosa	North of San Joaquin Hills	3.8	3.8	3.8	3.8		
Santa Rosa	South of San Joaquin Hills	14.5	14.5	16.8	16.8		
Santa Rosa	North of Newport CTR	12.2	12.2	14.3	14.3		
Santa Rosa	South of Newport CTR	6.8	6.8	7.9	7.9		
San Clemente	East of Santa Barbara	5.6	5.7	5.6	5.7		
San Clemente	West of Santa Cruz	5.8	5.9	5.8	5.9		
Santa Barbara	West of Jamboree	2.1	2.1	2.3	2.3		
Santa Barbara	East of Jamboree	12.1	12.2	12.8	12.9		
Santa Barbara	North of San Clemente	12.0	12.1	12.6	12.6		
Santa Barbara	South of San Clemente	7.3	7.3	7.9	7.9		



#### Table 5-2 (3 of 3)

#### **Average Daily Traffic Volumes (1000's)**

			Average Daily Traffic (1,000's)				
		Exi	sting	Year	2016		
Roadway	Segment	No Project	With Project	No Project	With Project		
Santa Barbara	West of Newport CTR	6.3	6.4	6.9	6.9		
Santa Barbara	East of Newport CTR	3.3	3.3	3.7	3.7		
Avocado	North of San Miguel	4.2	4.2	5.0	5.0		
Avocado	South of San Miguel	13.1	13.1	15.5	15.5		
Avocado	North of Coast Highway	9.2	9.2	11.0	11.0		

<sup>&</sup>lt;sup>1</sup> Traffic volumes according to the North Newport Center San Joaquin Plaza TPO Traffic Analysis by Stantec, May 2012.



#### Table 5-3 (1 of 1)

#### Hourly Traffic Flow Distribution <sup>1</sup>

Motor-Vehicle Type	Daytime (7 am to 7 pm)	Evening (7 pm to 10 pm)	Night (10 pm to 7 am)	Total % Traffic Flow
Automobiles	77.5%	12.9%	9.6%	97.42%
Medium Trucks	84.8%	4.9%	10.3%	1.84%
Heavy Trucks	86.5%	2.7%	10.8%	0.74%

<sup>&</sup>lt;sup>1</sup> Typical southern California vehicle mix.

#### **6.0 OFF-SITE TRANSPORTATION NOISE IMPACTS**

To assess the off-site noise level impacts associated with development of the proposed North Newport Center Planned Community project, noise contours were developed for the following traffic scenarios:

<u>Existing With / Without Project</u>: This scenario refers to the existing present-day noise conditions, without and with construction of the proposed project.

<u>Year 2016 With / Without Project</u>: This scenario refers to the background noise conditions at future Year 2016 with and without the proposed project. This corresponds to the existing plus growth plus approved projects plus cumulative project conditions without and with the NNCPC.

#### 6.1 Traffic Noise Contours

Noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway. CNEL noise contours are determined below for the 70, 65, 60, and 55 dBA noise levels. The distance from the centerline of the roadway to the CNEL contours for roadways in the proposed project's vicinity are presented in Tables 6-1 through 6-4. The noise contours do not take into account the noise reducing effect of any existing noise barriers or topography that may affect ambient noise levels. The off-site FHWA model printouts are included in Appendix 6.1.

#### 6.2 Existing Roadway Noise Levels

Table 6-1 shows that the unmitigated exterior noise levels are expected to range from 54.0 to 71.1 dBA CNEL at 100 feet from each roadway's centerline. Table 6-2 presents the existing with project conditions unmitigated noise contours that are expected to remain the same and range from 54.0 to 71.1 dBA CNEL at 100 feet from the roadway centerline. Most of the off-site study area is currently developed or planned for development.

#### 6.3 Year 2016 Roadway Noise Levels

Table 6-3 shows that for Year 2016 without project conditions the off-site traffic noise levels are estimated to range from 54.4 to 71.5 dBA CNEL. With the addition of the Project, Table 6-4



Table 6-1 (1 of 3)

#### **Existing Without Project Conditions Noise Contours**

		CNEL at	Distance to Contour (Feet)				
Road	Segment	100 Feet (dBA)	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL	
Jamboree	North of Eastbluff	68.8	84	180	389	837	
Jamboree	Eastbluff to San Joaquin Hills	69.8	96	207	447	962	
Jamboree	South of San Joaquin Hills	68.0	74	159	343	738	
Jamboree	North of Santa Barbara	68.3	77	166	358	772	
Jamboree	South of Santa Barbara	67.8	72	155	333	718	
Jamboree	North of Coast Highway	67.5	68	147	317	682	
Jamboree	South of Coast Highway	63.3	RW	77	167	359	
Santa Cruz	North of San Joaquin Hills	54.5	RW	RW	RW	92	
Santa Cruz	Souh of San Joaquin Hills	63.0	RW	73	158	340	
Santa Cruz	North of San Clemente	62.9	RW	72	155	334	
Santa Cruz	South of San Clemente	61.9	RW	RW	133	287	
Santa Cruz	North of Newport CTR	61.7	RW	RW	129	279	
Santa Cruz	South of Newport CTR	58.5	RW	RW	80	172	
Newport CTR	West of Newport CTR	60.9	RW	RW	115	248	
Newport CTR	South of Santa Barbara	61.3	RW	RW	123	264	
Newport CTR	North of Santa Barbara	60.6	RW	RW	109	236	
Newport CTR	South of Santa Cruz	60.2	RW	RW	104	224	
Newport CTR	North of Santa Cruz	59.9	RW	RW	99	214	
Newport CTR	North of Santa Rosa	60.6	RW	RW	109	236	
Newport CTR	South of Santa Rosa	62.0	RW	64	137	295	
Newport CTR	North of San Miguel	61.0	RW	RW	117	252	
Newport CTR	South of San Miguel	62.7	RW	70	152	327	
Newport CTR	East of Newport CTR	61.9	RW	RW	134	289	
Newport CTR	South of Newport CTR (Circle	63.6	RW	80	173	372	
Newport CTR	North of Coast Highway	64.2	RW	88	190	410	
Santa Rosa	North of San Joaquin Hills	58.0	RW	RW	73	158	
Santa Rosa	South of San Joaquin Hills	63.8	RW	83	179	386	
Santa Rosa	North of Newport CTR	63.0	RW	74	160	344	
Santa Rosa	South of Newport CTR	60.5	RW	RW	108	233	
Avocado	North of San Miguel	57.0	RW	RW	RW	136	
Avocado	South of San Miguel	62.0	RW	RW	135	291	
Avocado	North of Coast Highway	60.4	RW	RW	107	230	
Macarthur	North of Bonita Canyon	71.1	118	255	548	1,181	
Macarthur	South of Bonita Canyon	70.3	105	227	489	1,054	
Macarthur	North of San Joaquin Hills	70.3	105	227	489	1,054	



Table 6-1 (2 of 3)

#### **Existing Without Project Conditions Noise Contours**

		CNEL at	Distance to Contour (Feet)				
Road	Segment	100 Feet (dBA)	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL	
Macarthur	South of San Joaquin Hills	68.3	78	167	360	776	
Macarthur	North of San Miguel	67.9	72	155	335	722	
Macarthur	South of San Miguel	67.0	RW	136	294	633	
Macarthur	North of Coast Highway	67.0	RW	137	295	635	
Eastbluff/Ford/Bonita Cyn	West of Jamboree	63.8	RW	83	178	384	
Eastbluff/Ford/Bonita Cyn	East of Jamboree	62.8	RW	71	153	330	
Eastbluff/Ford/Bonita Cyn	West of Bonita Canyon	62.1	RW	64	139	299	
Eastbluff/Ford/Bonita Cyn	East of Bonita Canyon	67.9	73	157	338	728	
San Joaquin Hills	West of Jamboree	59.3	RW	RW	89	193	
San Joaquin Hills	East of Jamboree	64.9	RW	99	213	460	
San Joaquin Hills	West of Santa Cruz	65.9	RW	114	246	530	
San Joaquin Hills	East of Santa Cruz	63.8	RW	84	180	388	
San Joaquin Hills	West of Santa Rosa	64.4	RW	91	197	425	
San Joaquin Hills	East of Santa Rosa	65.8	RW	113	244	525	
San Joaquin Hills	West of Macarthur	65.7	RW	112	241	519	
San Joaquin Hills	East of Macarthur	65.6	RW	110	236	509	
San Clemente	East of Santa Barbara	58.3	RW	RW	77	165	
San Clemente	West of Santa Cruz	58.4	RW	RW	78	169	
Santa Barbara	West of Jamboree	54.0	RW	RW	RW	86	
Santa Barbara	East of Jamboree	61.6	RW	RW	128	276	
Santa Barbara	North of San Clemente	61.6	RW	RW	127	275	
Santa Barbara	South of San Clemente	59.4	RW	RW	91	197	
Santa Barbara	West of Newport CTR	58.8	RW	RW	83	179	
Santa Barbara	East of Newport CTR	56.0	RW	RW	RW	116	
San Miguel	West of Newport CTR	61.1	RW	RW	118	255	
San Miguel	East of Newport CTR	63.2	RW	76	164	353	
San Miguel	West of Avacado	64.3	RW	90	194	419	
San Miguel	East of Avacado	66.0	RW	117	253	544	
San Miguel	West of Macarthur	65.6	RW	110	237	511	
San Miguel	East of Macarthur	62.9	RW	72	156	336	
Coast Highway	West of Jamboree	70.2	104	224	482	1,038	
Coast Highway	East of Jamboree	69.2	88	190	409	882	
Coast Highway	West of Newport CTR	68.9	84	181	389	839	



#### Table 6-1 (3 of 3)

#### **Existing Without Project Conditions Noise Contours**

		CNEL at	Distance to Contour (Feet)			
Road Segment	100 Feet (dBA)	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL	
Coast Highway	East of Newport CTR	68.0	73	158	341	734
Coast Highway	West of Avacado	67.8	72	154	332	716
Coast Highway	East of Avacado	68.1	74	160	345	742
Coast Highway	West of Macarthur	68.1	74	160	345	744
Coast Highway	East of Macarthur	69.5	92	198	428	921

<sup>&</sup>lt;sup>1</sup> "RW" = Location of the respective noise contour falls within the right-of-way of the road



Table 6-2 (1 of 3)

#### **Existing With Project Conditions Noise Contours**

		CNEL at	Distance to Contour (Feet)			
Road	Segment	100 Feet (dBA)	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Jamboree	North of Eastbluff	68.9	84	181	389	839
Jamboree	Eastbluff to San Joaquin Hills	69.8	96	208	447	964
Jamboree	South of San Joaquin Hills	68.0	74	159	343	738
Jamboree	North of Santa Barbara	68.3	77	167	359	773
Jamboree	South of Santa Barbara	67.8	72	155	334	719
Jamboree	North of Coast Highway	67.5	68	147	317	684
Jamboree	South of Coast Highway	63.3	RW	77	167	359
Santa Cruz	North of San Joaquin Hills	54.5	RW	RW	RW	92
Santa Cruz	Souh of San Joaquin Hills	63.4	RW	78	168	362
Santa Cruz	North of San Clemente	62.9	RW	72	156	336
Santa Cruz	South of San Clemente	61.9	RW	RW	134	289
Santa Cruz	North of Newport CTR	61.7	RW	RW	130	281
Santa Cruz	South of Newport CTR	58.5	RW	RW	80	172
Newport CTR	West of Newport CTR	60.9	RW	RW	115	248
Newport CTR	South of Santa Barbara	61.3	RW	RW	123	264
Newport CTR	North of Santa Barbara	60.6	RW	RW	109	236
Newport CTR	South of Santa Cruz	60.2	RW	RW	104	224
Newport CTR	North of Santa Cruz	59.9	RW	RW	99	214
Newport CTR	North of Santa Rosa	60.6	RW	RW	109	236
Newport CTR	South of Santa Rosa	62.1	RW	64	138	297
Newport CTR	North of San Miguel	62.1	RW	64	138	297
Newport CTR	South of San Miguel	62.7	RW	70	152	327
Newport CTR	East of Newport CTR	61.9	RW	RW	134	289
Newport CTR	South of Newport CTR (Circle	63.6	RW	80	173	372
Newport CTR	North of Coast Highway	64.2	RW	88	190	410
Santa Rosa	North of San Joaquin Hills	58.0	RW	RW	73	158
Santa Rosa	South of San Joaquin Hills	63.8	RW	83	179	386
Santa Rosa	North of Newport CTR	63.0	RW	74	160	344
Santa Rosa	South of Newport CTR	60.5	RW	RW	108	233
Avocado	North of San Miguel	57.0	RW	RW	RW	136
Avocado	South of San Miguel	62.0	RW	RW	135	291
Avocado	North of Coast Highway	60.4	RW	RW	107	230
Macarthur	North of Bonita Canyon	71.1	118	255	548	1,181
Macarthur	South of Bonita Canyon	70.3	105	227	490	1,055
Macarthur	North of San Joaquin Hills	70.3	105	227	490	1,055



Table 6-2 (2 of 3)

#### **Existing With Project Conditions Noise Contours**

		CNEL at Distance		Distance to C	ontour (Feet)	
Road	Segment	100 Feet (dBA)	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Macarthur	South of San Joaquin Hills	68.3	78	167	360	776
Macarthur	North of San Miguel	67.9	72	155	335	722
Macarthur	South of San Miguel	67.0	RW	136	294	633
Macarthur	North of Coast Highway	67.0	RW	137	295	635
Eastbluff/Ford/Bonita Cyn	West of Jamboree	63.8	RW	83	178	384
Eastbluff/Ford/Bonita Cyn	East of Jamboree	62.8	RW	71	153	330
Eastbluff/Ford/Bonita Cyn	West of Bonita Canyon	62.2	RW	65	140	301
Eastbluff/Ford/Bonita Cyn	East of Bonita Canyon	67.9	73	157	338	729
San Joaquin Hills	West of Jamboree	59.3	RW	RW	89	193
San Joaquin Hills	East of Jamboree	65.0	RW	100	215	463
San Joaquin Hills	West of Santa Cruz	65.9	RW	115	247	532
San Joaquin Hills	East of Santa Cruz	63.9	RW	84	181	390
San Joaquin Hills	West of Santa Rosa	64.4	RW	92	198	426
San Joaquin Hills	East of Santa Rosa	65.8	RW	113	244	527
San Joaquin Hills	West of Macarthur	65.7	RW	112	241	520
San Joaquin Hills	East of Macarthur	65.6	RW	110	236	509
San Clemente	East of Santa Barbara	58.3	RW	RW	78	167
San Clemente	West of Santa Cruz	58.5	RW	RW	79	171
Santa Barbara	West of Jamboree	54.0	RW	RW	RW	86
Santa Barbara	East of Jamboree	61.7	RW	RW	129	278
Santa Barbara	North of San Clemente	61.6	RW	RW	128	276
Santa Barbara	South of San Clemente	59.4	RW	RW	91	197
Santa Barbara	West of Newport CTR	58.8	RW	RW	84	181
Santa Barbara	East of Newport CTR	56.0	RW	RW	RW	116
San Miguel	West of Newport CTR	61.1	RW	RW	118	255
San Miguel	East of Newport CTR	63.2	RW	76	164	353
San Miguel	West of Avacado	64.3	RW	90	194	419
San Miguel	East of Avacado	66.0	RW	117	253	544
San Miguel	West of Macarthur	65.6	RW	110	237	511
San Miguel	East of Macarthur	62.9	RW	72	156	336
Coast Highway	West of Jamboree	70.2	104	224	482	1,038
Coast Highway	East of Jamboree	69.2	88	190	409	882
Coast Highway	West of Newport CTR	68.9	84	181	389	839



#### Table 6-2 (3 of 3)

#### **Existing With Project Conditions Noise Contours**

		CNEL at		Distance to C	Contour (Feet)	1)			
Road	Segment	100 Feet (dBA)	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL			
Coast Highway	East of Newport CTR	68.0	74	158	341	735			
Coast Highway	West of Avacado	67.8	72	155	333	718			
Coast Highway	East of Avacado	68.1	74	160	345	744			
Coast Highway	West of Macarthur	68.1	74	161	346	745			
Coast Highway	East of Macarthur	69.5	92	199	428	923			

<sup>&</sup>lt;sup>1</sup> "RW" = Location of the respective noise contour falls within the right-of-way of the road



Table 6-3 (1 of 3)

#### **2016 Without Project Conditions Noise Contours**

		CNEL of	Distance to Contour (Feet)			
Road	Segment	CNEL at 100 Feet (dBA)	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Jamboree	North of Eastbluff	69.6	95	204	439	946
Jamboree	Eastbluff to San Joaquin Hills	70.5	107	231	498	1,072
Jamboree	South of San Joaquin Hills	68.8	83	179	386	831
Jamboree	North of Santa Barbara	69.0	86	185	398	858
Jamboree	South of Santa Barbara	68.6	81	173	374	805
Jamboree	North of Coast Highway	68.3	77	167	359	773
Jamboree	South of Coast Highway	63.6	RW	80	173	372
Santa Cruz	North of San Joaquin Hills	54.5	RW	RW	RW	92
Santa Cruz	Souh of San Joaquin Hills	63.1	RW	75	162	349
Santa Cruz	North of San Clemente	63.1	RW	74	160	346
Santa Cruz	South of San Clemente	62.1	RW	64	139	299
Santa Cruz	North of Newport CTR	62.0	RW	RW	135	291
Santa Cruz	South of Newport CTR	58.8	RW	RW	83	179
Newport CTR	West of Newport CTR	61.1	RW	RW	118	255
Newport CTR	South of Santa Barbara	61.4	RW	RW	125	269
Newport CTR	North of Santa Barbara	60.8	RW	RW	114	245
Newport CTR	South of Santa Cruz	60.5	RW	RW	107	231
Newport CTR	North of Santa Cruz	60.1	RW	RW	101	219
Newport CTR	North of Santa Rosa	61.1	RW	RW	118	255
Newport CTR	South of Santa Rosa	62.5	RW	68	146	314
Newport CTR	North of San Miguel	61.3	RW	RW	121	262
Newport CTR	South of San Miguel	62.8	RW	72	154	333
Newport CTR	East of Newport CTR	62.0	RW	64	137	295
Newport CTR	South of Newport CTR (Circle	64.0	RW	86	184	397
Newport CTR	North of Coast Highway	64.6	RW	94	203	437
Santa Rosa	North of San Joaquin Hills	58.0	RW	RW	73	158
Santa Rosa	South of San Joaquin Hills	64.4	RW	92	197	425
Santa Rosa	North of Newport CTR	63.7	RW	82	177	382
Santa Rosa	South of Newport CTR	61.2	RW	RW	119	257
Avocado	North of San Miguel	57.8	RW	RW	71	153
Avocado	South of San Miguel	62.7	RW	70	151	326
Avocado	North of Coast Highway	61.2	RW	RW	120	259
Macarthur	North of Bonita Canyon	71.5	126	272	585	1,261
Macarthur	South of Bonita Canyon	70.9	114	246	529	1,140
Macarthur	North of San Joaquin Hills	70.8	113	243	524	1,129



Table 6-3 (2 of 3)

#### **2016 Without Project Conditions Noise Contours**

		CNEL of	Distance to Contour (Feet)				
Road	Segment	100 Feet (dBA)	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL	
Macarthur	South of San Joaquin Hills	68.8	84	180	388	836	
Macarthur	North of San Miguel	68.3	78	167	360	776	
Macarthur	South of San Miguel	67.6	69	148	319	688	
Macarthur	North of Coast Highway	67.6	69	149	320	690	
Eastbluff/Ford/Bonita Cyn	West of Jamboree	64.0	RW	86	186	400	
Eastbluff/Ford/Bonita Cyn	East of Jamboree	63.0	RW	74	160	344	
Eastbluff/Ford/Bonita Cyn	West of Bonita Canyon	62.4	RW	67	145	313	
Eastbluff/Ford/Bonita Cyn	East of Bonita Canyon	68.1	75	162	348	750	
San Joaquin Hills	West of Jamboree	59.4	RW	RW	92	198	
San Joaquin Hills	East of Jamboree	65.5	RW	109	234	504	
San Joaquin Hills	West of Santa Cruz	66.2	RW	120	259	559	
San Joaquin Hills	East of Santa Cruz	64.2	RW	88	190	410	
San Joaquin Hills	West of Santa Rosa	64.8	RW	97	209	451	
San Joaquin Hills	East of Santa Rosa	66.0	RW	117	253	544	
San Joaquin Hills	West of Macarthur	66.2	RW	120	258	555	
San Joaquin Hills	East of Macarthur	65.7	RW	112	241	520	
San Clemente	East of Santa Barbara	58.3	RW	RW	77	165	
San Clemente	West of Santa Cruz	58.4	RW	RW	78	169	
Santa Barbara	West of Jamboree	54.4	RW	RW	RW	91	
Santa Barbara	East of Jamboree	61.9	RW	RW	133	287	
Santa Barbara	North of San Clemente	61.8	RW	RW	132	284	
Santa Barbara	South of San Clemente	59.8	RW	RW	96	208	
Santa Barbara	West of Newport CTR	59.2	RW	RW	88	190	
Santa Barbara	East of Newport CTR	56.5	RW	RW	RW	125	
San Miguel	West of Newport CTR	61.8	RW	RW	131	283	
San Miguel	East of Newport CTR	63.8	RW	83	178	384	
San Miguel	West of Avacado	64.8	RW	96	208	447	
San Miguel	East of Avacado	66.5	RW	125	270	581	
San Miguel	West of Macarthur	66.2	RW	119	257	555	
San Miguel	East of Macarthur	63.1	RW	75	162	349	
Coast Highway	West of Jamboree	71.0	117	251	541	1,166	
Coast Highway	East of Jamboree	70.1	102	219	472	1,018	
Coast Highway	West of Newport CTR	69.8	97	209	450	968	



#### Table 6-3 (3 of 3)

#### **2016 Without Project Conditions Noise Contours**

	CNEL at			CNEL			Distance to C	Contour (Feet)	
Road	Segment	100 Feet (dBA)	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL			
Coast Highway	East of Newport CTR	69.0	86	185	399	859			
Coast Highway	West of Avacado	68.9	84	181	390	841			
Coast Highway	East of Avacado	69.0	86	185	398	857			
Coast Highway	West of Macarthur	68.7	82	176	378	815			
Coast Highway	East of Macarthur	70.4	106	228	491	1,057			

<sup>&</sup>lt;sup>1</sup> "RW" = Location of the respective noise contour falls within the right-of-way of the road



#### Table 6-4 (1 of 3)

#### **2016 With Project Conditions Noise Contours**

		CNEL at	Distance to Contour (Feet)			
Road	Segment	100 Feet (dBA)	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Jamboree	North of Eastbluff	69.7	95	204	440	948
Jamboree	Eastbluff to San Joaquin Hills	70.5	107	231	499	1,074
Jamboree	South of San Joaquin Hills	68.8	83	179	386	832
Jamboree	North of Santa Barbara	69.0	86	185	399	859
Jamboree	South of Santa Barbara	68.6	81	174	374	806
Jamboree	North of Coast Highway	68.3	77	167	360	775
Jamboree	South of Coast Highway	63.6	RW	80	173	372
Santa Cruz	North of San Joaquin Hills	54.5	RW	RW	RW	92
Santa Cruz	Souh of San Joaquin Hills	63.2	RW	76	164	353
Santa Cruz	North of San Clemente	63.1	RW	75	161	347
Santa Cruz	South of San Clemente	62.2	RW	65	140	301
Santa Cruz	North of Newport CTR	62.0	RW	RW	135	291
Santa Cruz	South of Newport CTR	58.8	RW	RW	83	179
Newport CTR	West of Newport CTR	61.1	RW	RW	118	255
Newport CTR	South of Santa Barbara	61.4	RW	RW	125	269
Newport CTR	North of Santa Barbara	60.8	RW	RW	114	245
Newport CTR	South of Santa Cruz	60.5	RW	RW	107	231
Newport CTR	North of Santa Cruz	60.1	RW	RW	101	219
Newport CTR	North of Santa Rosa	61.1	RW	RW	118	255
Newport CTR	South of Santa Rosa	62.5	RW	68	146	314
Newport CTR	North of San Miguel	61.3	RW	RW	121	262
Newport CTR	South of San Miguel	62.8	RW	72	154	333
Newport CTR	East of Newport CTR	62.0	RW	64	137	295
Newport CTR	South of Newport CTR (Circle	64.0	RW	86	184	397
Newport CTR	North of Coast Highway	64.6	RW	94	203	437
Santa Rosa	North of San Joaquin Hills	58.0	RW	RW	73	158
Santa Rosa	South of San Joaquin Hills	64.4	RW	92	197	425
Santa Rosa	North of Newport CTR	63.7	RW	82	177	382
Santa Rosa	South of Newport CTR	61.2	RW	RW	119	257
Avocado	North of San Miguel	57.8	RW	RW	71	153
Avocado	South of San Miguel	62.7	RW	70	151	326
Avocado	North of Coast Highway	61.2	RW	RW	120	259
Macarthur	North of Bonita Canyon	71.5	126	272	586	1,262
Macarthur	South of Bonita Canyon	70.9	114	246	530	1,141
Macarthur	North of San Joaquin Hills	70.8	113	243	524	1,129



#### Table 6-4 (2 of 3)

#### **2016 With Project Conditions Noise Contours**

		CNEL et		Distance to C	ontour (Feet)	
Road	Segment	CNEL at 100 Feet (dBA)	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Macarthur	South of San Joaquin Hills	68.8	84	180	388	836
Macarthur	North of San Miguel	68.3	78	167	360	776
Macarthur	South of San Miguel	67.6	69	148	319	688
Macarthur	North of Coast Highway	67.6	69	149	320	690
Eastbluff/Ford/Bonita Cyn	West of Jamboree	64.0	RW	86	186	400
Eastbluff/Ford/Bonita Cyn	East of Jamboree	63.1	RW	74	160	346
Eastbluff/Ford/Bonita Cyn	West of Bonita Canyon	62.4	RW	67	145	313
Eastbluff/Ford/Bonita Cyn	East of Bonita Canyon	68.1	75	162	349	751
San Joaquin Hills	West of Jamboree	59.4	RW	RW	92	198
San Joaquin Hills	East of Jamboree	65.6	RW	109	235	505
San Joaquin Hills	West of Santa Cruz	66.2	RW	120	259	559
San Joaquin Hills	East of Santa Cruz	64.2	RW	89	191	412
San Joaquin Hills	West of Santa Rosa	64.8	RW	98	210	453
San Joaquin Hills	East of Santa Rosa	66.1	RW	118	253	546
San Joaquin Hills	West of Macarthur	66.2	RW	120	259	557
San Joaquin Hills	East of Macarthur	65.7	RW	112	241	520
San Clemente	East of Santa Barbara	58.3	RW	RW	78	167
San Clemente	West of Santa Cruz	58.5	RW	RW	79	171
Santa Barbara	West of Jamboree	54.4	RW	RW	RW	91
Santa Barbara	East of Jamboree	61.9	RW	RW	134	288
Santa Barbara	North of San Clemente	61.8	RW	RW	132	284
Santa Barbara	South of San Clemente	59.8	RW	RW	96	208
Santa Barbara	West of Newport CTR	59.2	RW	RW	88	190
Santa Barbara	East of Newport CTR	56.5	RW	RW	RW	125
San Miguel	West of Newport CTR	61.8	RW	RW	131	283
San Miguel	East of Newport CTR	63.8	RW	83	178	384
San Miguel	West of Avacado	64.8	RW	96	208	447
San Miguel	East of Avacado	66.5	RW	125	270	581
San Miguel	West of Macarthur	66.2	RW	119	257	555
San Miguel	East of Macarthur	63.1	RW	75	162	349
Coast Highway	West of Jamboree	71.0	117	252	542	1,167
Coast Highway	East of Jamboree	70.1	102	219	472	1,018
Coast Highway	West of Newport CTR	69.8	97	209	450	968



### Table 6-4 (3 of 3)

#### **2016 With Project Conditions Noise Contours**

		CNEL at		Distance to C	Contour (Feet)	
Road	Segment	100 Feet (dBA)	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Coast Highway	East of Newport CTR	69.0	86	185	399	860
Coast Highway	West of Avacado	68.9	84	181	390	841
Coast Highway	East of Avacado	69.0	86	185	398	858
Coast Highway	West of Macarthur	69.0	86	185	399	860
Coast Highway	East of Macarthur	70.4	106	228	491	1,058

<sup>&</sup>lt;sup>1</sup> "RW" = Location of the respective noise contour falls within the right-of-way of the road



indicates that the unmitigated off-site traffic noise levels will remain the same and range from 54.4 to 71.5. Project contributions are discussed in the following sections.

#### 6.4 Existing With Project Traffic Noise Level Contributions

Table 6-5 presents a comparison of the existing conditions noise levels for with and without the addition of project traffic associated with adding 94 residential dwelling units to San Joaquin Plaza. The roadway noise increases will range from 0.0 dBA CNEL to 1.1 dBA CNEL with the development of the proposed project.

#### 6.5 Year 2016 With Project Traffic Noise Level Contributions

Table 6-6 presents a comparison of the Year 2016 noise levels for with and without the addition of project traffic associated with adding 94 residential dwelling units to San Joaquin Plaza. The roadway noise increases will range from 0.0 dBA CNEL and 0.3 dBA CNEL, with the development of the proposed project.

#### 6.6 Off-Site Transportation Related Project Noise Impacts

Based on the significance criteria provided in Section 4.2, a new or substantial increase to the transportation-related noise impacts identified in the General Plan EIR occurs when there is a substantial increase in the ambient CNEL produced by new development impacting existing sensitive uses. According to the significance thresholds shown on Tables 6-5 and 6-6 (which are based on General Plan Policy N 1.8), 72 of the 73 study roadway segments within the project study area are not expected to create a potentially significant off-site transportation related noise impact.

Based on the Existing conditions off-site transportation noise impact analysis, the Newport Center segment north of San Miguel is the only roadway identified with a potentially significant impact. However, the land uses neighboring this roadway segment consist primarily of commercial retail and office uses and not considered existing sensitive uses that would require additional off-site noise mitigation. As such, a significant impact for this roadway segment does not exist in for future Year 2016 condition.

For all of the 73 study area roadway segments, project related noise level increases are expected to be less than 1.0 to 3.0 dBA CNEL in Year 2016, which is considered "barely perceptible." All



Table 6-5 (1 of 3)

### **Existing Off-Site Project Related Traffic Noise Impacts**

		CNEI	at 100 Feet	(dBA)	Signifcance	Potential
		No	With	Project	Threshold	Significant
Roadway	Segment	Project	Project	Addition	(dBA) <sup>1</sup>	Impact? <sup>2</sup>
Jamboree	North of Eastbluff	68.8	68.9	0.0	1.0	No
Jamboree	Eastbluff to San Joaquin Hills	69.8	69.8	0.0	1.0	No
Jamboree	South of San Joaquin Hills	68.0	68.0	0.0	1.0	No
Jamboree	North of Santa Barbara	68.3	68.3	0.0	1.0	No
Jamboree	South of Santa Barbara	67.8	67.8	0.0	1.0	No
Jamboree	North of Coast Highway	67.5	67.5	0.0	1.0	No
Jamboree	South of Coast Highway	63.3	63.3	0.0	1.0	No
Santa Cruz	North of San Joaquin Hills	54.5	54.5	0.0	3.0	No
Santa Cruz	Souh of San Joaquin Hills	63.0	63.4	0.4	1.0	No
Santa Cruz	North of San Clemente	62.9	62.9	0.0	1.0	No
Santa Cruz	South of San Clemente	61.9	61.9	0.0	1.0	No
Santa Cruz	North of Newport CTR	61.7	61.7	0.0	1.0	No
Santa Cruz	South of Newport CTR	58.5	58.5	0.0	2.0	No
Newport CTR	West of Newport CTR	60.9	60.9	0.0	1.0	No
Newport CTR	South of Santa Barbara	61.3	61.3	0.0	1.0	No
Newport CTR	North of Santa Barbara	60.6	60.6	0.0	1.0	No
Newport CTR	South of Santa Cruz	60.2	60.2	0.0	1.0	No
Newport CTR	North of Santa Cruz	59.9	59.9	0.0	2.0	No
Newport CTR	North of Santa Rosa	60.6	60.6	0.0	1.0	No
Newport CTR	South of Santa Rosa	62.0	62.1	0.0	1.0	No
Newport CTR	North of San Miguel	61.0	62.1	1.1	1.0	Yes
Newport CTR	South of San Miguel	62.7	62.7	0.0	1.0	No
Newport CTR	East of Newport CTR	61.9	61.9	0.0	1.0	No
Newport CTR	South of Newport CTR (Circle	63.6	63.6	0.0	1.0	No
Newport CTR	North of Coast Highway	64.2	64.2	0.0	1.0	No
Santa Rosa	North of San Joaquin Hills	58.0	58.0	0.0	2.0	No
Santa Rosa	South of San Joaquin Hills	63.8	63.8	0.0	1.0	No
Santa Rosa	North of Newport CTR	63.0	63.0	0.0	1.0	No
Santa Rosa	South of Newport CTR	60.5	60.5	0.0	1.0	No
Avocado	North of San Miguel	57.0	57.0	0.0	2.0	No
Avocado	South of San Miguel	62.0	62.0	0.0	1.0	No
Avocado	North of Coast Highway	60.4	60.4	0.0	1.0	No
Macarthur	North of Bonita Canyon	71.1	71.1	0.0	1.0	No
Macarthur	South of Bonita Canyon	70.3	70.3	0.0	1.0	No
Macarthur	North of San Joaquin Hills	70.3	70.3	0.0	1.0	No



Table 6-5 (2 of 3)

### **Existing Off-Site Project Related Traffic Noise Impacts**

		CNEI	L at 100 Feet	(dBA)	Signifcance	Potential
		No	With	Project	Threshold	Significant
Roadway	Segment	Project	Project	Addition	(dBA) <sup>1</sup>	Impact?2
Macarthur	South of San Joaquin Hills	68.3	68.3	0.0	1.0	No
Macarthur	North of San Miguel	67.9	67.9	0.0	1.0	No
Macarthur	South of San Miguel	67.0	67.0	0.0	1.0	No
Macarthur	North of Coast Highway	67.0	67.0	0.0	1.0	No
Eastbluff/Ford/Bonita Cyn	West of Jamboree	63.8	63.8	0.0	1.0	No
Eastbluff/Ford/Bonita Cyn	East of Jamboree	62.8	62.8	0.0	1.0	No
Eastbluff/Ford/Bonita Cyn	West of Bonita Canyon	62.1	62.2	0.0	1.0	No
Eastbluff/Ford/Bonita Cyn	East of Bonita Canyon	67.9	67.9	0.0	1.0	No
San Joaquin Hills	West of Jamboree	59.3	59.3	0.0	2.0	No
San Joaquin Hills	East of Jamboree	64.9	65.0	0.0	1.0	No
San Joaquin Hills	West of Santa Cruz	65.9	65.9	0.0	1.0	No
San Joaquin Hills	East of Santa Cruz	63.8	63.9	0.0	1.0	No
San Joaquin Hills	West of Santa Rosa	64.4	64.4	0.0	1.0	No
San Joaquin Hills	East of Santa Rosa	65.8	65.8	0.0	1.0	No
San Joaquin Hills	West of Macarthur	65.7	65.7	0.0	1.0	No
San Joaquin Hills	East of Macarthur	65.6	65.6	0.0	1.0	No
San Clemente	East of Santa Barbara	58.3	58.3	0.1	2.0	No
San Clemente	West of Santa Cruz	58.4	58.5	0.1	2.0	No
Santa Barbara	West of Jamboree	54.0	54.0	0.0	3.0	No
Santa Barbara	East of Jamboree	61.6	61.7	0.0	1.0	No
Santa Barbara	North of San Clemente	61.6	61.6	0.0	1.0	No
Santa Barbara	South of San Clemente	59.4	59.4	0.0	2.0	No
Santa Barbara	West of Newport CTR	58.8	58.8	0.1	2.0	No
Santa Barbara	East of Newport CTR	56.0	56.0	0.0	2.0	No
San Miguel	West of Newport CTR	61.1	61.1	0.0	1.0	No
San Miguel	East of Newport CTR	63.2	63.2	0.0	1.0	No
San Miguel	West of Avacado	64.3	64.3	0.0	1.0	No
San Miguel	East of Avacado	66.0	66.0	0.0	1.0	No
San Miguel	West of Macarthur	65.6	65.6	0.0	1.0	No
San Miguel	East of Macarthur	62.9	62.9	0.0	1.0	No
Coast Highway	West of Jamboree	70.2	70.2	0.0	1.0	No
Coast Highway	East of Jamboree	69.2	69.2	0.0	1.0	No
Coast Highway	West of Newport CTR	68.9	68.9	0.0	1.0	No



Table 6-5 (3 of 3)

### **Existing Off-Site Project Related Traffic Noise Impacts**

		CNEI	at 100 Feet	(dBA)	Signifcance	Potential
Roadway	Segment	No Project	With Project	Project Addition	Threshold (dBA) <sup>1</sup>	Significant Impact? <sup>2</sup>
Coast Highway	East of Newport CTR	68.0	68.0	0.0	1.0	No
Coast Highway	West of Avacado	67.8	67.8	0.0	1.0	No
Coast Highway	East of Avacado	68.1	68.1	0.0	1.0	No
Coast Highway	West of Macarthur	68.1	68.1	0.0	1.0	No
Coast Highway	East of Macarthur	69.5	69.5	0.0	1.0	No

<sup>&</sup>lt;sup>1</sup> Significant noise impact threshold defined by the City of Newport Beach Policy N 1.8.



<sup>&</sup>lt;sup>2</sup> Potential noise impact for existing noise sensitive uses.

Table 6-6 (1 of 3)

# Year 2016 Off-Site Project Related Traffic Noise Impacts

		CNEI	at 100 Feet	(dBA)	Signifcance	Potential
		No	With	Project	Threshold	Significant
Roadway	Segment	Project	Project	Addition	(dBA) <sup>1</sup>	Impact?2
Jamboree	North of Eastbluff	69.6	69.7	0.0	1.0	No
Jamboree	Eastbluff to San Joaquin Hills	70.5	70.5	0.0	1.0	No
Jamboree	South of San Joaquin Hills	68.8	68.8	0.0	1.0	No
Jamboree	North of Santa Barbara	69.0	69.0	0.0	1.0	No
Jamboree	South of Santa Barbara	68.6	68.6	0.0	1.0	No
Jamboree	North of Coast Highway	68.3	68.3	0.0	1.0	No
Jamboree	South of Coast Highway	63.6	63.6	0.0	1.0	No
Santa Cruz	North of San Joaquin Hills	54.5	54.5	0.0	3.0	No
Santa Cruz	Souh of San Joaquin Hills	63.1	63.2	0.1	1.0	No
Santa Cruz	North of San Clemente	63.1	63.1	0.0	1.0	No
Santa Cruz	South of San Clemente	62.1	62.2	0.0	1.0	No
Santa Cruz	North of Newport CTR	62.0	62.0	0.0	1.0	No
Santa Cruz	South of Newport CTR	58.8	58.8	0.0	2.0	No
Newport CTR	West of Newport CTR	61.1	61.1	0.0	1.0	No
Newport CTR	South of Santa Barbara	61.4	61.4	0.0	1.0	No
Newport CTR	North of Santa Barbara	60.8	60.8	0.0	1.0	No
Newport CTR	South of Santa Cruz	60.5	60.5	0.0	1.0	No
Newport CTR	North of Santa Cruz	60.1	60.1	0.0	1.0	No
Newport CTR	North of Santa Rosa	61.1	61.1	0.0	1.0	No
Newport CTR	South of Santa Rosa	62.5	62.5	0.0	1.0	No
Newport CTR	North of San Miguel	61.3	61.3	0.0	1.0	No
Newport CTR	South of San Miguel	62.8	62.8	0.0	1.0	No
Newport CTR	East of Newport CTR	62.0	62.0	0.0	1.0	No
Newport CTR	South of Newport CTR (Circle	64.0	64.0	0.0	1.0	No
Newport CTR	North of Coast Highway	64.6	64.6	0.0	1.0	No
Santa Rosa	North of San Joaquin Hills	58.0	58.0	0.0	2.0	No
Santa Rosa	South of San Joaquin Hills	64.4	64.4	0.0	1.0	No
Santa Rosa	North of Newport CTR	63.7	63.7	0.0	1.0	No
Santa Rosa	South of Newport CTR	61.2	61.2	0.0	1.0	No
Avocado	North of San Miguel	57.8	57.8	0.0	2.0	No
Avocado	South of San Miguel	62.7	62.7	0.0	1.0	No
Avocado	North of Coast Highway	61.2	61.2	0.0	1.0	No
Macarthur	North of Bonita Canyon	71.5	71.5	0.0	1.0	No
Macarthur	South of Bonita Canyon	70.9	70.9	0.0	1.0	No
Macarthur	North of San Joaquin Hills	70.8	70.8	0.0	1.0	No



Table 6-6 (2 of 3)

# Year 2016 Off-Site Project Related Traffic Noise Impacts

		CNE	L at 100 Feet	(dBA)	Signifcance	Potential
Roadway		No	With	Project	Threshold	Significant
,	Segment	Project	Project	Addition	(dBA) <sup>1</sup>	Impact? <sup>2</sup>
Macarthur	South of San Joaquin Hills	68.8	68.8	0.0	1.0	No
Macarthur	North of San Miguel	68.3	68.3	0.0	1.0	No
Macarthur	South of San Miguel	67.6	67.6	0.0	1.0	No
Macarthur	North of Coast Highway	67.6	67.6	0.0	1.0	No
Eastbluff/Ford/Bonita Cyn	West of Jamboree	64.0	64.0	0.0	1.0	No
Eastbluff/Ford/Bonita Cyn	East of Jamboree	63.0	63.1	0.0	1.0	No
Eastbluff/Ford/Bonita Cyn	West of Bonita Canyon	62.4	62.4	0.0	1.0	No
Eastbluff/Ford/Bonita Cyn	East of Bonita Canyon	68.1	68.1	0.0	1.0	No
San Joaquin Hills	West of Jamboree	59.4	59.4	0.0	2.0	No
San Joaquin Hills	East of Jamboree	65.5	65.6	0.0	1.0	No
San Joaquin Hills	West of Santa Cruz	66.2	66.2	0.0	1.0	No
San Joaquin Hills	East of Santa Cruz	64.2	64.2	0.0	1.0	No
San Joaquin Hills	West of Santa Rosa	64.8	64.8	0.0	1.0	No
San Joaquin Hills	East of Santa Rosa	66.0	66.1	0.0	1.0	No
San Joaquin Hills	West of Macarthur	66.2	66.2	0.0	1.0	No
San Joaquin Hills	East of Macarthur	65.7	65.7	0.0	1.0	No
San Clemente	East of Santa Barbara	58.3	58.3	0.1	2.0	No
San Clemente	West of Santa Cruz	58.4	58.5	0.1	2.0	No
Santa Barbara	West of Jamboree	54.4	54.4	0.0	3.0	No
Santa Barbara	East of Jamboree	61.9	61.9	0.0	1.0	No
Santa Barbara	North of San Clemente	61.8	61.8	0.0	1.0	No
Santa Barbara	South of San Clemente	59.8	59.8	0.0	2.0	No
Santa Barbara	West of Newport CTR	59.2	59.2	0.0	2.0	No
Santa Barbara	East of Newport CTR	56.5	56.5	0.0	2.0	No
San Miguel	West of Newport CTR	61.8	61.8	0.0	1.0	No
San Miguel	East of Newport CTR	63.8	63.8	0.0	1.0	No
San Miguel	West of Avacado	64.8	64.8	0.0	1.0	No
San Miguel	East of Avacado	66.5	66.5	0.0	1.0	No
San Miguel	West of Macarthur	66.2	66.2	0.0	1.0	No
San Miguel	East of Macarthur	63.1	63.1	0.0	1.0	No
Coast Highway	West of Jamboree	71.0	71.0	0.0	1.0	No
Coast Highway	East of Jamboree	70.1	70.1	0.0	1.0	No
Coast Highway	West of Newport CTR	69.8	69.8	0.0	1.0	No



### Table 6-6 (3 of 3)

### Year 2016 Off-Site Project Related Traffic Noise Impacts

		CNE	L at 100 Feet	(dBA)	Signifcance	Potential
Roadway	Segment	No Project	With Project	Project Addition	Threshold (dBA) <sup>1</sup>	Significant Impact? <sup>2</sup>
Coast Highway	East of Newport CTR	69.0	69.0	0.0	1.0	No
Coast Highway	West of Avacado	68.9	68.9	0.0	1.0	No
Coast Highway	East of Avacado	69.0	69.0	0.0	1.0	No
Coast Highway	West of Macarthur	68.7	69.0	0.3	1.0	No
Coast Highway	East of Macarthur	70.4	70.4	0.0	1.0	No

<sup>&</sup>lt;sup>1</sup> Significant noise impact threshold defined by the City of Newport Beach Policy N 1.8.



 $<sup>^{\</sup>rm 2}\,$  Potential noise impact for existing noise sensitive uses.

noise level increases attributable to project-related traffic also are either below the thresholds established by General Plan Policy N 1.8, or would not impact a sensitive receptor. As such, the proposed project's contributions to off-site roadway noise increases for both existing conditions and year 2016 would not result in the exposure of persons to or result in the generation of noise levels in excess of standards established in the General Plan, City Noise Ordinance, or applicable standards of any other agencies. Additionally, Project-related traffic would not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

For General Plan buildout conditions, noise level increases attributable to project-related traffic would be less than the noise level increases presented in Table 6-6. This is because buildout of the General Plan would result in an overall increase in background traffic volumes, which would thereby result in an increase in background noise levels as compared to year 2016 conditions. As background traffic-related noise levels increase, noise increases attributable to project traffic would decrease. Therefore, since project-related noise increases would be less than the values presented in Table 6-6, Project-related traffic under General Plan buildout conditions would not result in the generation of noise levels in excess of standards established in the General Plan, City Noise Ordinance, or applicable standards of any other agencies, nor would it result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

Based on the analysis presented above, traffic associated with the proposed project would not result in any new significant effects not discussed in the General Plan EIR, nor would Project traffic result in a substantial increase in the severity of any noise impacts previously identified in the General Plan EIR.



# **APPENDIX 6.1**

Off-Site FHWA Traffic Noise Model Printouts



	FH	WA-RD-77-1	08 HIG	HWAY	NOISE P	REDICTI	ON MO	DEL			
Road Nam	io: Existing ne: Jamboree nt: North of E					.,	Name: umber:		С		
SITE	SPECIFIC II	NPUT DAT	4						L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	43,500 vehic	cles					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tru	icks (2 i	4xles):	15		
Peak H	lour Volume:	4,350 vehic	cles		He	eavy Truc	cks (3+ )	4xles):	15		
Ve	hicle Speed:	45 mph			Vehicle	Miv					
Near/Far La	ne Distance:	76 feet				icleType		Dav	Evening	Night	Daily
Site Data							Autos:	77.5%		9.6%	,
Pa	rrier Heiaht:	0.0 fee	,		M	edium Tr	ucks:	84.8%	4.9%	10.3%	6 1.84%
Barrier Type (0-W		0.0				Heavy Tr	ucks:	86.5%	2.7%	10.8%	6 0.74%
Centerline Di	. ,	100.0 feet			Noise S	ourco El	ovation	c (in f	not)		
Centerline Dist.	to Observer:	100.0 feet			NOISE 3	Auto:		000	<del>561)</del>		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Trucks		000			
Observer Height (	(Above Pad):	5.0 feet				vy Trucks		006	Grade Ad	liustmen	t· 0.0
P	ad Elevation:	0.0 feet			1100	ry Trucke	s. O.	000	Orddo 71d,	juotimon	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq				feet)		
	Road Grade:	0.0%				Autos	s: 92.	547			
	Left View:	-90.0 deg	rees		Mediu	m Trucks	s: 92.	504			
	Right View:	90.0 deg	rees		Hea	y Trucks	s: 92.	547			
FHWA Noise Mod	el Calculation	าร									
VehicleType	REMEL	Traffic Flov	v Di	istance	Finite	Road	Fresi	nel	Barrier Att	en Be	rm Atten
Autos:	68.46	3 4.4	43	-4.	11	-1.20		-4.87	0.0	000	0.000
Medium Trucks:				-4.		-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-16.	76	-4.	11	-1.20		-5.16	0.0	000	0.000
<b>Unmitigated Noise</b>	e Levels (with	hout Topo ai	nd barr	ier atte	nuation)						
VehicleType	Leq Peak Ho		,	Leq I	Evening	,	Night		Ldn		CNEL
Autos:	6	7.6	65.7		63.9		57.9	9	66.5	5	67.1
Medium Trucks:	-	1.3	59.8		53.5		51.9	-	60.4		60.6
Heavy Trucks:	62	2.2	60.8		51.7		53.0	)	61.3	3	61.5
Vehicle Noise:	6	9.4	67.7		64.5		59.8	3	68.4	4	68.8
Centerline Distan	ce to Noise C	ontour (in fe	et)								
					dBA		dBA	- (	60 dBA		5 dBA
			Ldn:		78		88		362		781
			CNEL:		84	18	30		389		837

Autos: 77.5%   12.9%   9.6%   97.42	_	FHV	WA-RD-77-108	HIGH	WAY N	IOISE PI	REDICT	ION MO	DEL	_		-
Highway Data	Road Nam	e: Jamboree	an Joaquin Hills	3						С		
Average Daily Traffic (Adi): 36,000 vehicles   Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15   Heavy Trucks (34 Axles): 15	SITE S	SPECIFIC IN	IPUT DATA				1	NOISE I	MODE	L INPUTS	3	
Peak Hour Percentage:	Highway Data					Site Con	ditions	(Hard =	: 10, Sc	oft = 15)		
Peak Hour Volume:	Average Daily	Traffic (Adt): 3	36,000 vehicle	S					Autos:	15		
Vehicle Speed: Near/Far Lane Distance: 76 feet   Vehicle Mix   Vehicle Type	Peak Hour	Percentage:	10%			Me	dium Tı	ucks (2	Axles):	15		
Near/Far Lane Distance:   76 feet     Vericle Mix   Vericle Type   Day   Evening   Night   Daily   Daily   Night   Daily   N	Peak H	our Volume:	3,600 vehicle	S		He	avy Tru	cks (3+ )	Axles):	15		
Near/Far Lane   Distance:   76   feet     Vehicle Type   Day   Evening   Night   Daily   Site Data   Autos: 77.5%   12.9%   9.5%   9.	Vei	hicle Speed:	45 mph		-	Vehicle	Miv					
Autos: 77.5%   12.9%   9.6%   97.42	Near/Far Lai	ne Distance:	76 feet		H.			9	Dav	Evenina	Niaht	Dailv
Barrier Trype (0-Well, 1-Berm): 0.0   leet	Site Data						,,					. ,
Barrier Type (0-Wall, 1-Berm): 0.0   Centerline Dist. to Dserver: 100.0   feet	Par	rior Hojaht:	0.0 foot			M	edium 7	rucks:	84.8%	4.9%	10.3%	1.84%
Noise Source Elevations (in feet)						1	Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Observer: 100.0 feet   Barrier Distance to Observer: 0.0 feet   Autos: 2.000   Medium Trucks: 4.000   Grade Adjustment: 0.0   Gr	,, ,	. ,	100.0 feet		١.	o		· · · · · · · · · · · · · · · · · · ·	- /! #-	41		
Barrier Distance to Observer: 0.0 feet   Pad Elevation: 0.0 feet   Pad Elevation: 0.0 feet   Road Freshell   Road Elevation: 0.0 feet   Road Freshell   Road Elevation: 0.0 feet   Ro	Centerline Dist.	to Observer:	100.0 feet		1	voise 5			•	eet)		
Diserver Height (Above Pad):	Barrier Distance	to Observer:	0.0 feet									
Pad Elevation: 0.0 feet	Observer Height (	Above Pad):	5.0 feet							Crada Adi	i rodeno nd	
Road Grade:	Pa	ad Elevation:	0.0 feet			Heat	ry Truck	is: 8.	006	Grade Auj	usunen	. 0.0
Left View:	Ros	ad Elevation:	0.0 feet		I	Lane Eq	uivalen	t Distan	ce (in t	feet)		
Right View: 90.0 degrees   Heavy Trucks: 92.547	F	Road Grade:	0.0%				Auto	s: 92	547			
FHWA Noise Model Calculations   VehicleType   REMEL   Traffic Flow   Distance   Finite Road   Fresnet   Barrier Atten   Berm Atten   Autos:   68.46   3.61   -4.11   -1.20   -4.87   0.000   0.0		Left View:	-90.0 degree	es		Mediu	m Truck	rs: 92	504			
VehicleType		Right View:	90.0 degree	es		Heav	ry Truck	rs: 92	547			
Autos: 68.46   3.61   4.11   -1.20   4.87   0.000   0.0	FHWA Noise Mode	el Calculation	s									
Medium Trucks: 79.45   -13.63   -4.11   -1.20   -4.97   0.000   0.0     Heavy Trucks: 84.25   -17.58   -4.11   -1.20   -5.16   0.000   0.0     Unmitigated Noise   Levels (without Topo and barrier attenuation)   Vehicle Type   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNEL     Autos: 66.8   64.9   63.1   57.0   65.7   66.7     Medium Trucks: 60.5   59.0   52.6   51.1   59.6   56.6     Heavy Trucks: 61.4   59.9   50.9   52.1   60.5   66.7     Vehicle Noise: 68.6   68.6   69.9   63.7   59.0   67.6     Centerline Distance to Noise Contour (in feet)	VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresi	nel	Barrier Atte	en Ber	m Atten
Heavy Trucks:   84.25   -17.58   -4.11   -1.20   -5.16   0.000   0.0												0.00
Unmitigated Noise   Levels (without Topo and barrier attenuation)   VehicleType   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNEL												0.000
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         66.8         64.9         63.1         57.0         65.7         66.7         66.7         69.0         52.6         51.1         59.6         55         46.7         59.0         52.6         51.1         59.6         55         46.7         46.7         46.7         46.7         60.5         66.5         66.9         50.9         52.1         60.5         66.5         66.9         63.7         59.0         67.6         67.6         66         66.7 <t< td=""><td>Heavy Trucks:</td><td>84.25</td><td>-17.58</td><td></td><td>-4.11</td><td>1</td><td>-1.20</td><td></td><td>-5.16</td><td>0.0</td><td>100</td><td>0.000</td></t<>	Heavy Trucks:	84.25	-17.58		-4.11	1	-1.20		-5.16	0.0	100	0.000
Autos:         66.8         64.9         63.1         57.0         65.7         66           Medium Trucks:         60.5         59.0         52.6         51.1         59.6         55           Heavy Trucks:         61.4         59.9         50.9         52.1         60.5         60           Vehicle Noise:         68.6         66.9         63.7         59.0         67.6         68           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA	Unmitigated Noise	e Levels (with	out Topo and	barrie	r atten	uation)			_			
Medium Trucks:         60.5         59.0         52.6         51.1         59.6         58.6           Heavy Trucks:         61.4         59.9         50.9         52.1         60.5         66.5           Vehicle Noise:         68.6         66.9         63.7         59.0         67.6         68.6           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA		- 4	., .,		Leg Ev		Leq					
Heavy Trucks:         61.4         59.9         50.9         52.1         60.5         66           Vehicle Noise:         68.6         66.9         63.7         59.0         67.6         68           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA									-			66.3
Vehicle Noise:         68.6         66.9         63.7         59.0         67.6         68           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA												59.8
Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA												60.6
70 dBA 65 dBA 60 dBA 55 dBA						03.7		59.1	J	67.0	,	00.0
	Centerline Distanc	ce to Noise Co	ontour (in feet	,	70.0	IBA	65	dBA	6	60 dBA	55	dBA
				Ldn:								
CNEL: 74 159 343 738					-	-					-	

	HWA-RD	0-77-108 HIC	SHWAY	NOISE PR	EDICTI	ON MOE	EL			
Scenario: Existing Road Name: Jambor Road Segment: Eastblu		loaquin Hills				Name: N umber: 8		:		
SITE SPECIFIC	INPUT	DATA			N	OISE N	ODEL	INPUTS	ò	
Highway Data				Site Cond	ditions (	(Hard =	10, Soi	ft = 15)		
Average Daily Traffic (Adi Peak Hour Percentag Peak Hour Volum	e: 10					A Icks (2 A ks (3+ A		15 15 15		
Vehicle Spee	d: 45	mph		Vehicle N	/liv					
Near/Far Lane Distance	e: 76	feet			cleType		Dav	Evening	Night	Daily
Site Data						utos:	77.5%	12.9%	9.6%	,
Barrier Heigh	t· 0.0	0 feet		Me	dium Tr	ucks: 8	34.8%	4.9%	10.3%	1.849
Barrier Type (0-Wall, 1-Berm				Н	leavy Tr	ucks: 8	36.5%	2.7%	10.8%	0.749
Centerline Dist. to Barrie	r: 100.0	0 feet		Noise So	urce Fle	evations	(in fe	of)		
Centerline Dist. to Observe	r: 100.0	0 feet		110,00 00	Autos		•	.,		
Barrier Distance to Observe	r: 0.0	0 feet		Mediun	n Trucks					
Observer Height (Above Pac		0 feet		Heav	y Trucks	: 8.0	06	Grade Adju	ıstment	0.0
Pad Elevatio		0 feet								
Road Elevatio		0 feet		Lane Equ				eet)		
Road Grad		0%			Autos					
Left Vie Right Vie		0 degrees 0 degrees			n Trucks y Trucks					
FHWA Noise Model Calculat	ions									
VehicleType REMEL		c Flow L	Distance	Finite I	Road	Fresn	el E	Barrier Atte	n Ber	m Atten
Autos: 68	46	5.34	-4.	11	-1.20		4.87	0.0	00	0.00
Medium Trucks: 79	45	-11.90	-4.	11	-1.20		4.97	0.0	00	0.00
Heavy Trucks: 84	25	-15.85	-4.	11	-1.20		5.16	0.0	00	0.00
Unmitigated Noise Levels (v	ithout To	po and bar	rier atte	nuation)						
VehicleType Leq Peak		Leq Day		Evening	Leq I			Ldn	C	NEL
Autos:	68.5	66.6	-	64.8		58.8		67.4		68.
Medium Trucks:	62.2	60.7		54.4		52.8		61.3		61.
Heavy Trucks:	63.1	61.7		52.6		53.9		62.2		62.
Vehicle Noise:	70.3	68.0	6	65.4		60.8		69.3		69.
Centerline Distance to Noise	Contour	(in feet)								
				dBA	65 c			) dBA		dBA
		Ldr		90	19	-		416		897
		CNEL		96	20	17		447	٤	962

Tuesday, May 29, 2012

	FH\	WA-RD-77-108	HIGH	WAY N	OISE PI	REDICTION	M NC	ODEL			
Scenario	: Existing					Project I	Name	NNCP	С		
Road Name	: Jamboree					Job Nu	ımber	8211			
Road Segment	: North of Sa	anta Barbara									
	PECIFIC IN	NPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions (	Hard	= 10, S	oft = 15)		
Average Daily T	raffic (Adt):	38,500 vehicle	S					Autos:	15		
Peak Hour P	ercentage:	10%			Me	dium Tru	cks (2	Axles):	15		
Peak Ho	ur Volume:	3,850 vehicle	S		He	avy Truci	ks (3+	Axles):	15		
Veh	icle Speed:	45 mph		1	/ehicle	Mix					
Near/Far Land	e Distance:	76 feet				icleType		Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	12.9%	9.6%	97.42%
Barr	ier Heiaht:	0.0 feet			M	edium Tru	ıcks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wa		0.0			F	Heavy Tru	ıcks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist	to Barrier:	100.0 feet		,	Voise So	ource Ele	evatio	ns (in f	eet)		
Centerline Dist. to	Observer:	100.0 feet		-		Autos		2.000	,		
Barrier Distance to	Observer:	0.0 feet			Mediu	m Trucks		1.000			
Observer Height (A	bove Pad):	5.0 feet				y Trucks		3.006	Grade Ad	liustment	0.0
	d Elevation:	0.0 feet		<u> </u>		•				,	
	l Elevation:	0.0 feet		L	.ane Eq	uivalent			feet)		
R	oad Grade:	0.0%				Autos.		2.547			
	Left View:	-90.0 degre				m Trucks		2.504			
	Right View:	90.0 degre	es		Heav	y Trucks	: 9:	2.547			
FHWA Noise Model	Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fre	snel	Barrier Att	en Ber	m Atten
Autos:	68.46	3.90		-4.11		-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45	-13.33		-4.11		-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-17.29		-4.11		-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrie	r atten	uation)						
,,	.eq Peak Ho			Leq Ev		Leq N			Ldn		VEL
Autos:	67		65.2		63.4		57		66.0	-	66.6
Medium Trucks:			59.3		52.9		51		59.	-	60.1
Heavy Trucks:			60.2		51.2		52		60.8		60.9
Vehicle Noise:	68	3.9	67.1		64.0		59	.3	67.	9	68.3
Centerline Distance	to Noise C	ontour (in feet	)								
			L	70 a		65 d		-	60 dBA		dBA
			Ldn:	72	_	15			334		20
		_	NFI:	7	7	16	6		358	7	72

	FHV	VA-RD-77-108	HIGH	WAY I	NOISE PE	REDICT	ION MO	DEL			-
Road Nam	io: Existing ne: Jamboree nt: South of Sa	ınta Barbara					t Name: lumber:		C		
SITE	SPECIFIC IN	PUT DATA				1	NOISE N	ИODE	L INPUTS	3	
Highway Data					Site Con	ditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt): 3	34,500 vehicle	s					Autos.	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2 A	Axles).	15		
Peak H	lour Volume:	3,450 vehicle	S		He	avy Tru	cks (3+ A	Axles).	15		
Ve	hicle Speed:	45 mph		-	Vehicle I	Miv					
Near/Far La	ne Distance:	76 feet		-		cleType	9	Day	Evening	Night	Daily
Site Data								77.5%		9.6%	
Ra	rrier Heiaht:	0.0 feet			Me	edium T	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0			F	leavy T	rucks:	86.5%	6 2.7%	10.8%	0.74%
Centerline Di	st. to Barrier:	100.0 feet		-	Noise Sc	urco F	levation	e (in f	ioot)		
Centerline Dist.	to Observer:	100.0 feet		ŀ	110/30 00	Auto		000	ccij		
Barrier Distance	to Observer:	0.0 feet			Mediu	n Truck		000			
Observer Height (	(Above Pad):	5.0 feet				y Truck		006	Grade Adj	ustmen	. 00
Pa	ad Elevation:	0.0 feet			neav	y much	O.1	000	Orado riaj	uoumom	0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distand	ce (in	feet)		
	Road Grade:	0.0%				Auto		547			
	Left View:	-90.0 degre	es		Mediur	n Truck	s: 92.	504			
	Right View:	90.0 degre	es		Heav	y Truck	s: 92.	547			
FHWA Noise Mod	el Calculation:	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresn	nel	Barrier Atte	en Be	rm Atten
Autos:	68.46	3.43		-4.1	11	-1.20		-4.87	0.0	100	0.000
Medium Trucks:	79.45	-13.81		-4.1	11	-1.20		-4.97	0.0	00	0.000
Heavy Trucks:	84.25	-17.77		-4.1	11	-1.20		-5.16	0.0	00	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	66	.6	64.7		62.9		56.9	9	65.5	,	66.1
Medium Trucks:	60		58.8		52.5		50.9		59.4		59.6
Heavy Trucks:	61		59.7		50.7		52.0		60.3		60.4
Vehicle Noise:	68	.4	66.7		63.5		58.8	3	67.4	1	67.8
Centerline Distant	ce to Noise Co	ntour (in feet	)								
					dBA		dBA		60 dBA		dBA
			Ldn:		67		44		310		669
		C	NEL:	7	72	1	55		333	7	718

Tuesday, May 29, 2012

	FHW	A-RD-77-108	HIGH	łWAY	NOISE P	REDICTI	ON MO	DEL			
Road Nam	io: Existing e: Jamboree nt: South of Coa	ast Highway				Project Job N	Name: umber:		0		
	SPECIFIC INF	PUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	10, Sc	ft = 15)		
Average Daily	Traffic (Adt): 12	2,200 vehicle	S					Autos:	15		
Peak Hour	Percentage:	10%				edium Tru		/	15		
Peak H	our Volume: 1	,220 vehicle	S		He	eavy Truc	ks (3+ A	Axles):	15		
Ve	hicle Speed:	45 mph			Vehicle	Mix					
Near/Far La	ne Distance:	76 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6%						
Rai	rier Height:	0.0 feet			Medium Trucks: 84.8% 4.9% 10.3%						
Barrier Type (0-W		0.0				Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	. ,	100.0 feet			Maine C	ource El	overtie n	o (in fe	n41		
Centerline Dist.	to Observer:	100.0 feet			Noise 3	Autos		000	ei)		
Barrier Distance	to Observer:	0.0 feet			A de elle	Autos m Trucks		000			
Observer Height (	Above Pad):	5.0 feet				m Trucks vy Trucks		000	Grade Ad	iustmont	. 0.0
Pa	ad Elevation:	0.0 feet			пеа	ry Trucks	s. 0.1	006	Grade Adj	usuncin	. 0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalent	Distant	ce (in t	eet)		
ı	Road Grade:	0.0%				Autos	92.	547			
	Left View:	-90.0 degree	es			m Trucks		504			
	Right View:	90.0 degree	es		Hear	y Trucks	3: 92.	547			
FHWA Noise Mode	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresn	nel	Barrier Att	en Ber	m Atten
Autos:	68.46	-1.09		-4.	11	-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45	-18.33		-4.	11	-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-22.28		-4.	11	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (witho	ut Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hour		_	Leq I	Evening		Night		Ldn		NEL
Autos:	62.1		60.2		58.4		52.3		61.0		61.6
Medium Trucks:	55.8		54.3		47.9		46.4		54.9		55.1
Heavy Trucks: Vehicle Noise:	56.7 63.9		55.2 62.2		46.2 59.0		47.4 54.3		55.8 62.9		55.9 63.3
					59.0		54.5	,	02.8	7	03.0
Centerline Distant	ce to Noise Cor	ntour (in feet	)	70	dBA	65 (	HRΔ	-	0 dBA	55	dBA
			l dn: ∟		33	7			155		34
			VFI:		36	7	_		167	-	159
		Ci	VLL.		00	,	,		101		

Scenario: Existing	Y NOISE PREDICTION MODEL
Road Name: Jamboree Road Segment: North of Coast Highway	Project Name: NNCPC Job Number: 8211
SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS
Highway Data	Site Conditions (Hard = 10, Soft = 15)
Average Daily Traffic (Adt): 32,000 vehicles	Autos: 15
Peak Hour Percentage: 10%	Medium Trucks (2 Axles): 15
Peak Hour Volume: 3,200 vehicles	Heavy Trucks (3+ Axles): 15
Vehicle Speed: 45 mph	Vehicle Mix
Near/Far Lane Distance: 76 feet	VehicleType Day Evening Night Da
Site Data	Autos: 77.5% 12.9% 9.6% 97.4
Barrier Height: 0.0 feet	Medium Trucks: 84.8% 4.9% 10.3% 1.8
Barrier Type (0-Wall, 1-Berm): 0.0	Heavy Trucks: 86.5% 2.7% 10.8% 0.7
Centerline Dist. to Barrier: 100.0 feet	Noise Source Elevations (in feet)
Centerline Dist. to Observer: 100.0 feet	Autos: 2.000
Barrier Distance to Observer: 0.0 feet	Medium Trucks: 4.000
Observer Height (Above Pad): 5.0 feet	Heavy Trucks: 8,006 Grade Adjustment: 0.0
Pad Elevation: 0.0 feet	,
Road Elevation: 0.0 feet	Lane Equivalent Distance (in feet)
Road Grade: 0.0%	Autos: 92.547
Left View: -90.0 degrees	Medium Trucks: 92.504
Right View: 90.0 degrees	Heavy Trucks: 92.547
FHWA Noise Model Calculations	
VehicleType REMEL Traffic Flow Distance	
	4.11 -1.20 - <i>4.87</i> 0.000 0.
	4.11 -1.20 - <i>4.</i> 97 0.000 0.
Heavy Trucks: 84.25 -18.09 -	4.11 -1.20 -5.16 0.000 0.
Unmitigated Noise Levels (without Topo and barrier at	
VehicleType Leq Peak Hour Leq Day Let	q Evening Leq Night Ldn CNEL
	62.6 56.5 65.1 6
Autos: 66.2 64.3	
Autos:         66.2         64.3           Medium Trucks:         60.0         58.5	52.1 50.6 59.0 5
Autos: 66.2 64.3	52.1 50.6 59.0 5 50.4 51.6 60.0 6 63.2 58.5 67.1
Autos:         66.2         64.3           Medium Trucks:         60.0         58.5           Heavy Trucks:         60.8         59.4           Vehicle Noise:         68.1         66.3	50.4 51.6 60.0
Autos: 66.2 64.3  Medium Trucks: 60.0 58.5  Heavy Trucks: 60.8 59.4  Vehicle Noise: 68.1 66.3  Centerline Distance to Noise Contour (in feet)	50.4 51.6 60.0
Autos: 66.2 64.3  Medium Trucks: 60.0 58.5  Heavy Trucks: 60.8 59.4  Vehicle Noise: 68.1 66.3  Centerline Distance to Noise Contour (in feet)	50.4 51.6 60.0 6 63.2 58.5 67.1 6

Tuesday, May 29, 2012

	FHV	WA-RD-77-108	HIGHW	AY N	OISE PF	REDICT	ON MODI	EL			
Scenar	io: Existing					Project	Name: NI	NCPC			
Road Nam	e: Santa Cruz					Job N	umber: 82	211			
Road Segme	nt: North of Sa	ın Joaquin Hills									
	SPECIFIC IN	IPUT DATA						DDEL INPU			
Highway Data				5	Site Con	ditions	(Hard = 1	0, Soft = 15,	)		
Average Daily	Traffic (Adt):	1,700 vehicle	s				A	ıtos: 15			
Peak Hour	Percentage:	10%			Me	dium Tri	icks (2 Ax	les): 15			
Peak H	lour Volume:	170 vehicle	s		He	avy Truc	ks (3+ Ax	les): 15			
Ve	hicle Speed:	45 mph		,	Vehicle I	Miss					
Near/Far La	ne Distance:	52 feet		μ,			1 0	ay Evenir	- AI	iaht	Doilu
Site Data					ven	icleType		7.5% 12.9		ight 9.6%	Daily 97.42%
				-		ر edium Ti		7.5% 12.9 4.8% 4.9		0.3%	1.84%
	rrier Height:	0.0 feet						4.6% 4.9 6.5% 2.7		0.8%	0.74%
Barrier Type (0-W		0.0			r	leavy Ti	ucks: 8	0.5% 2.7	% 1	0.8%	0.74%
Centerline Di		100.0 feet		1	Voise So	ource El	evations	(in feet)			
Centerline Dist.		100.0 feet				Auto	s: 2.00	10			
Barrier Distance		0.0 feet			Mediu	n Truck					
Observer Height (	Above Pad):	5.0 feet				y Truck			Adiust	ment:	0.0
	ad Elevation:	0.0 feet				•			,,		
Roa	ad Elevation:	0.0 feet		L	ane Eq		Distance				
	Road Grade:	0.0%				Auto	s: 96.60	)7			
	Left View:	-90.0 degree	es		Mediur	n Truck	3: 96.56	66			
	Right View:	90.0 degree	es		Heav	y Truck	96.60	08			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista		Finite	Road	Fresne	Barrier	Atten	Berr	n Atten
Autos:	68.46	-9.65		-4.39	9	-1.20	-4	1.87	0.000		0.000
Medium Trucks:	79.45	-26.88		-4.39	9	-1.20	-4	1.97	0.000		0.000
Heavy Trucks:	84.25	-30.84		-4.39	9	-1.20	-5	5.16	0.000		0.000
Unmitigated Noise			barrier	atten	uation)						
VehicleType	Leq Peak Hou	ır Leq Day	/ L	eq Ev	ening/	Leq	Night	Ldn		CN	EL
Autos:	53	.2	51.3		49.6		43.5	5	2.1		52.7
Medium Trucks:	47	.0	45.5		39.1		37.6	4	6.0		46.3
Heavy Trucks:	47	.8	46.4		37.4		38.6	4	7.0		47.1
Vehicle Noise:	55	.1	53.3		50.2		45.5		4.0		54.5
Centerline Distan	ce to Noise Co	ontour (in feet	)								
				70 a			dBA	60 dBA		55 c	
			Ldn:	9			9	40		8	
		CI	VEL:	9	1	2	0	43		9	2

	FH\	WA-RD-77-108	HIGH	MAY N	NOISE PR	EDICT	ION MC	DEL			
Road Nam	io: Existing e: Santa Cruz nt: Souh of Sa	z an Joaquin Hills				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Name: lumber:		C		
SITE S	SPECIFIC IN	NPUT DATA				N	NOISE	MODE	EL INPUT	S	
Highway Data					Site Con	ditions	(Hard =	: 10, S	oft = 15)		
Average Daily	Traffic (Adt):	12,000 vehicles	3					Autos	: 15		
Peak Hour	Percentage:	10%			Med	dium Tr	ucks (2	Axles)	: 15		
Peak H	our Volume:	1,200 vehicles	3		Hea	avy Tru	cks (3+.	Axles)	: 15		
Vei	hicle Speed:	45 mph		H	Vehicle I	/lix					
Near/Far Lai	ne Distance:	52 feet		H		cleType	9	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	6 12.9%	9.69	6 97.42%
Rai	rier Heiaht:	0.0 feet			Me	dium T	rucks:	84.89	6 4.9%	10.39	6 1.84%
Barrier Type (0-W		0.0			H	leavy T	rucks:	86.5%	6 2.7%	10.89	6 0.74%
Centerline Dis	st. to Barrier:	100.0 feet		ŀ	Noise So	urco F	lovation	e (in t	foot)		
Centerline Dist.	to Observer:	100.0 feet		H	110/36 00	Auto		.000	001)		
Barrier Distance	to Observer:	0.0 feet			Mediur			000			
Observer Height (.	Above Pad):	5.0 feet				y Truck		.006	Grade Ad	iustmer	t- 0.0
Pa	ad Elevation:	0.0 feet		L						uoumon	0.0
Roa	ad Elevation:	0.0 feet		L	Lane Equ	ıivalen			feet)		
F	Road Grade:	0.0%				Auto		.607			
	Left View:	-90.0 degree	es		Mediun			.566			
	Right View:	90.0 degree	es		Heav	y Truck	s: 96	.608			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite		Fres		Barrier Att		erm Atten
Autos:	68.46			-4.3	-	-1.20		-4.87		000	0.000
Medium Trucks:	79.45			-4.3	-	-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-22.35		-4.3	9	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	r atter	nuation)						
,,	Leq Peak Hou		_	Leq E	vening	Leq	Night		Ldn		CNEL
Autos:	61		59.8		58.0		52.		60.6		61.2
Medium Trucks:			54.0		47.6		46.	-	54.5	-	54.7
Heavy Trucks:			54.9		45.8		47.		55.5		55.6
Vehicle Noise:			61.8		58.7		54.	0	62.5	5	63.0
Centerline Distance	ce to Noise C	ontour (in feet,	)								
			L		dBA		dBA		60 dBA		5 dBA
			Ldn:		12		88		147		317
		CI	IEL:	3	14	7	73		158		340

	FHWA	A-RD-77-108	HIGHWA	AY NOISE P	REDICTIO	N MODI	EL		
Scenario: Exis					Project N	lame: NI			
Road Segment: Sout		Clemente			JOD IVU	mber: 82	:11		
SITE SPECII	FIC INP	UT DATA			NO	DISE MO	DDEL INPU	TS	
Highway Data				Site Cor	nditions (i	Hard = 1	0, Soft = 15)		
Average Daily Traffic (	Adt): 9,	,300 vehicles				Au	itos: 15		
Peak Hour Percent	tage:	10%		Me	edium Truc	cks (2 Ax	les): 15		
Peak Hour Vol	ume:	930 vehicles		He	eavy Truck	rs (3+ Ax	les): 15		
Vehicle Sp	eed:	45 mph		Vehicle	Miv				
Near/Far Lane Dista	nce:	52 feet			nicleTvpe		ay Evening	g Nigh	t Daily
Site Data					,,, .		7.5% 12.9%		
Barrier He	imb4.	0.0 feet		M	ledium Tru	icks: 84	1.8% 4.9%	6 10.3	% 1.849
Barrier Type (0-Wall, 1-Be		0.0			Heavy Tru	icks: 8	6.5% 2.79	6 10.8	% 0.749
Centerline Dist. to Ba	,	100.0 feet					<i>(</i> , <i>e</i> , <i>a</i> )		
Centerline Dist. to Obse		100.0 feet		Noise S	ource Ele				
Barrier Distance to Obse		0.0 feet			Autos:		-		
Observer Height (Above I		5.0 feet			m Trucks:		-		
Pad Fleva	,	0.0 feet		Hea	vy Trucks:	8.00	6 Grade A	Adjustme	nt: 0.0
Road Fleva		0.0 feet		Lane Ed	uivalent	Distance	(in feet)		
Road G	rade:	0.0%			Autos:	96.60	7		
l eft \	/iew:	-90.0 degree	s	Mediu	m Trucks:	96.56	6		
Right \		90.0 degree		Hea	vy Trucks:	96.60	8		
FHWA Noise Model Calcu	ılations								
VehicleType REM	IEL 7	raffic Flow	Distan	ce Finite	Road	Fresne	Barrier A	Atten E	Berm Atten
Autos:	68.46	-2.27		-4.39	-1.20	-4	.87 (	0.000	0.00
Medium Trucks:	79.45	-19.50		-4.39	-1.20	-4	.97 (	0.000	0.00
Heavy Trucks:	84.25	-23.46		-4.39	-1.20	-5	.16 (	0.000	0.00
Unmitigated Noise Levels	s (withou	ıt Topo and I	oarrier a	ttenuation)					
	ak Hour	Leq Day	_	eq Evening	Leq ∧		Ldn		CNEL
Autos:	60.6		8.7	56.9		50.9		9.5	60.
Medium Trucks:	54.4		2.8	46.5		44.9		3.4	53.
Heavy Trucks: Vehicle Noise:	55.2 62.4		i3.8	44.7		46.0		1.3	54. 61.
			OU. /	57.5	1	52.9	6	1.4	61.
Centerline Distance to No	oise Con	tour (in feet)		70 dBA	65 d	DΛ	60 dBA		55 dBA
		,	dn:	27	58		124		267

	FH\	WA-RD-77-108	HIGHWA	NOIS	E PREDICTIO	N MODE	L		
Road Nam	io: Existing ne: Santa Cruz nt: North of Sa				Project Na Job Nun	ame: NN nber: 821			
	SPECIFIC IN	NPUT DATA					DEL INPUT	S	
Highway Data				Site	Conditions (H	lard = 10,	Soft = 15)		
Average Daily	Traffic (Adt):	11,700 vehicles	S			Aut			
Peak Hour	Percentage:	10%			Medium Truci		-,		
	lour Volume:	1,170 vehicles	S		Heavy Trucks	s (3+ Axle	s): 15		
	hicle Speed:	45 mph		Vehi	cle Mix				
Near/Far La	ne Distance:	52 feet			VehicleType	Da	y Evening	Night	Daily
Site Data					Au	tos: 77.	5% 12.9%	9.6%	97.42%
Ba	rrier Height:	0.0 feet			Medium Truc	cks: 84.	8% 4.9%	10.3%	1.84%
Barrier Type (0-W		0.0			Heavy Truc	cks: 86.	5% 2.7%	10.8%	0.74%
Centerline Di	st. to Barrier:	100.0 feet		Nois	e Source Elev	ations (i	n feet)		
Centerline Dist.	to Observer:	100.0 feet			Autos:	2.000			
Barrier Distance		0.0 feet		Me	dium Trucks:	4.000			
Observer Height (		5.0 feet		H	leavy Trucks:	8.006	Grade Ad	justment	0.0
	ad Elevation:	0.0 feet			Foundaries 5	·	(I 64)		
	ad Elevation:	0.0 feet		Lane	Equivalent D				
,	Road Grade:	0.0%		1.4	Autos:	96.607 96.566			
	Right View:	-90.0 degree 90.0 degree			leavy Trucks:	96.608			
FHWA Noise Mod	el Calculation	ıs		1					
VehicleType	REMEL	Traffic Flow	Distance	e Fi	nite Road	Fresnel	Barrier Att	en Ber	m Atten
Autos:	68.46	-1.27	-4	.39	-1.20	-4.	97 0.0	000	0.000
Medium Trucks:	79.45	-18.51	-4	.39	-1.20	-4.	97 0.0	000	0.000
Heavy Trucks:	84.25	-22.46	-4	.39	-1.20	-5.	16 0.0	000	0.000
Unmitigated Noise								1	
VehicleType	Leq Peak Ho			Evenin	, ,	_	Ldn		NEL
Autos:	61		59.7		7.9 7.5	51.9	60.5		61.1
Medium Trucks:	56		53.8 54.8		-7.5 -5.7	45.9 47.0	54.4 55.3		54.6
Heavy Trucks: Vehicle Noise:			61.7		8.5	53.9	62.4		55.5 62.9
		***		-	0.0	55.9	02.4	+	62.9
Centerline Distant	LE IO NOISE C	ontour (in feet		0 dBA	65 dE	3A	60 dBA	55	dBA
			Ldn:	31	67		145		312
			VEL:	33	72		155		334

Tuesday, May 29, 2012

	FH\	WA-RD-77-108	HIGHW	AY NOI	SE PREI	DICTIC	ON MC	DEL			
Scenari	io: Existing				Pr	oiect N	lame:	NNCP	C		
Road Nam	e: Santa Cruz				J	ob Nu	mber:	8211			
Road Segme	nt: North of Ne	ewport CTR									
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				Site	e Condit	ions (F	Hard =	: 10, S	oft = 15)		
Average Daily	Traffic (Adt):	8,900 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Mediu	m Truc	cks (2	Axles):	15		
Peak H	lour Volume:	890 vehicle	s		Heavy	Truck	rs (3+	Axles):	15		
Ve	hicle Speed:	45 mph		1/-	hicle Mix						
Near/Far La	ne Distance:	52 feet		vei	Vehicle			Dav	Evening	Night	Daily
Site Data					vernole		ıtos:	77.5%		9.6%	,
	la IIa laskata	0.0 feet			Medii	ım Tru		84.8%		10.3%	
Barrier Type (0-W	rrier Height:	0.0 feet 0.0				vy Tru		86.5%		10.8%	
Centerline Dis		100.0 feet				-					
Centerline Dist.		100.0 feet		No	ise Sour	ce Ele	vation	ıs (in f	eet)		
Barrier Distance		0.0 feet				Autos:	2.	.000			
Observer Height (		5.0 feet		/	Medium 7	rucks:	4.	.000			
	ad Elevation:	0.0 feet			Heavy 7	rucks:	8.	.006	Grade Ad	justment	: 0.0
	ad Elevation:	0.0 feet		I ai	ne Equiv	alent l	Distan	ce (in	feet)		
	Road Grade:	0.0 feet 0.0%		Lai	_	Autos:		.607	1001)		
,	l eft View:				Medium 7			.566			
	Right View:	-90.0 degre		,	Heavy 7			.608			
	ragni view.	90.0 degre	65		ricavy i	rucno.	50	.000			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite Ro	ad	Fres	nel	Barrier Att	en Bei	m Atten
Autos:	68.46	-2.46		-4.39		.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45	-19.70		-4.39	-1	.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-23.65		-4.39	-1	.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier	attenua	tion)						
VehicleType	Leq Peak Hou	ır Leq Day	/ L	eq Ever	ning	Leq N	light		Ldn		NEL
Autos:	60	.4	58.5		56.7		50.	7	59.3	3	59.9
Medium Trucks:	54	.2	52.7		46.3		44.	7	53.2	2	53.4
Heavy Trucks:	55	.0	53.6		44.5		45.	8	54.2	2	54.3
Vehicle Noise:	62	1.2	60.5		57.4		52.	7	61.2	2	61.7
Centerline Distand	ce to Noise Co	ontour (in feet	)								
		-		70 dBA	4	65 dl		- (	60 dBA		dBA
			Ldn:	26		56			121	2	260
			NEL:	28		60			129		79

Tuesday, May 29, 2012 Tuesday, May 29, 2012

	FH	WA-RD-77-108	HIGHWA	Y NOISE P	REDICT	ON MO	DEL			
Road Na	rio: Existing ne: Santa Cruz ent: South of N					Name: umber:		С		
SITE	SPECIFIC II	NPUT DATA			Ν	IOISE N	ИODE	L INPUT	S	
Highway Data				Site Cor	nditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	4,300 vehicle	s				Autos:	15		
Peak Hou	r Percentage:	10%		Me	dium Tru	icks (2 A	(xles	15		
Peak	Hour Volume:	430 vehicle	s	He	avy Truc	cks (3+ A	(xles	15		
V	ehicle Speed:	45 mph		Vehicle	Miv					
Near/Far L	ane Distance:	52 feet			icleType		Dav	Evening	Niaht	Daily
Site Data							77.5%	-	9.6%	
D	arrier Heiaht:	0.0 feet		M	edium Ti	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-1		0.0			Heavy Ti	rucks:	86.5%	2.7%	10.8%	0.74%
	ist. to Barrier:	100.0 feet		Noise S	51		- /! #	41		
Centerline Dist	to Observer:	100.0 feet		Noise S	Auto:		_	eet)		
Barrier Distance	to Observer:	0.0 feet		14-45	Auto: m Truck:		000			
Observer Height	(Above Pad):	5.0 feet					000 006	Crada Ad	i rotmo nt	
	Pad Elevation:	0.0 feet		Hea	y Truck	S: 8.0	JUb	Grade Ad	usimeni	. 0.0
Re	ad Elevation:	0.0 feet		Lane Eq	uivalen	Distan	ce (in i	feet)		
	Road Grade:	0.0%			Auto	s: 96.	607			
	Left View:	-90.0 degre	es	Mediu	m Truck	s: 96.	566			
	Right View:	90.0 degre	es	Hea	y Truck	s: 96.	808			
FHWA Noise Mod	del Calculation	ıs								
VehicleType	REMEL	Traffic Flow	Distanc	e Finite	Road	Fresn	iel .	Barrier Att	en Bei	rm Atten
Autos	68.46	-5.62	-	4.39	-1.20		-4.87	0.0	000	0.000
Medium Trucks				4.39	-1.20		-4.97		000	0.000
Heavy Trucks	84.25	-26.81	-	4.39	-1.20		-5.16	0.0	000	0.000
Unmitigated Nois	se Levels (with	out Topo and	barrier at	tenuation)						
VehicleType	Leq Peak Ho	ur Leq Day	/ Le	q Evening	Leq	Night		Ldn	С	NEL
Autos	-		55.4	53.6		47.5		56.2		56.8
Medium Trucks	5′		49.5	43.1		41.6		50.1		50.3
Heavy Trucks			50.4	41.4		42.6		51.0		51.1
Vehicle Noise	: 59	9.1	57.3	54.2		49.5	5	58.	1	58.5
Centerline Distar	ice to Noise C	ontour (in feet								
				70 dBA		dBA	6	60 dBA		dBA
			Ldn:	16		14		74		160
			NFI:	17		7		80		172

Scenario: Existing
Highway Data   Average Daily Traffic (Adt): 7,700 vehicles   Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15   Heavy Trucks (3+ Axles): 15   Wehicle Speed: 45 mph Near/Far Lane Distance: 76 feet   Wehicle Mix   Vehicle Type   Day   Evening   Night   Day   Night   Day   Night   Day   Day   Evening   Night   Day   Day   Evening   Night   Day   Night   Day
Average Daily Traffic (Adt): 7,700 vehicles   Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15   15   Vehicle Speed: 45 mph Near/Far Lane Distance: 76 feet   Vehicle Type   Day   Evening   Night   Day   Night   Day   Day   Evening   Night   Day   Night   Day   Day   Evening   Night   Day   Night   Day
Peak Hour Percentage:
Peak Hour Volume: 770 vehicles   Heavy Trucks (3+ Axles): 15
Vehicle Speed: 45 mph   Near/Far Lane Distance: 76 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Day   D
Near/Far Lane Distance: 76 feet   VehicleType   Day   Evening   Night   Day   Day   Evening   Night   Day
Near/Far Lane Distance: 76   feet     VehicleType   Day   Evening   Night   Day   Day   Evening   Night   Day
Barrier Height: 0.0 feet   Medium Trucks: 84.8% 4.9% 10.3% 1
Barrier Teight: 0.0 feet  Barrier Type (0-Wall, 1-Berm): 0.0  Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 feet Centerline Dist. to Observer: 100.0 feet Autos: 2.000  Noise Source Elevations (in feet) Autos: 2.000
Barrier Type (0-Wall, 1-Berm): 0.0 Heavy Trucks: 86.5% 2.7% 10.8% Conterline Dist. to Diserver: 100.0 feet Centerline Dist. to Diserver: 100.0 feet Autos: 2.000  Heavy Trucks: 86.5% 2.7% 10.8% Content of the Content
Centerline Dist. to Barrier: 100.0 feet  Centerline Dist. to Observer: 100.0 feet  Noise Source Elevations (in feet)  Autos: 2.000
Centerline Dist. to Observer: 100.0 feet Autos: 2.000
Barrier Distance to Observer: 0.0 foot
Observer Height (Above Pad): 5.0 feet Heavy Trucks: 8.006 Grade Adjustment: 0.1
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet Lane Equivalent Distance (in feet)
Road Grade: 0.0% Autos: 92.547
Left View: -90.0 degrees Medium Trucks: 92.504
Right View: 90.0 degrees Heavy Trucks: 92.547
FHWA Noise Model Calculations
VehicleType REMEL Traffic Flow Distance Finite Road Fresnel Barrier Atten Berm A
Autos: 68.46 -3.09 -4.11 -1.20 -4.87 0.000
Medium Trucks: 79.45 -20.32 -4.11 -1.20 -4.97 0.000
Heavy Trucks: 84.25 -24.28 -4.11 -1.20 -5.16 0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL
Autos: 60.1 58.2 56.4 50.3 59.0
Medium Trucks: 53.8 52.3 45.9 44.4 52.9
Heavy Trucks:         54.7         53.2         44.2         45.4         53.8           Vehicle Noise:         61.9         60.2         57.0         52.3         60.9
Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA
Idn: 25 53 114 246
CNFL: 26 57 123 264

	FH\	WA-RD-77-108	HIGHW	AY NO	DISE PI	REDICTIO	N MOI	DEL			
	o: Existing e: Newport C t: West of Ne					Project N Job Nur			0		
SITE S	SPECIFIC IN	NPUT DATA				NC	ISE N	/ODE	L INPUT	S	
Highway Data				S	ite Cor	ditions (F	lard =	10, Sc	ft = 15)		
Average Daily 1	raffic (Adt):	7,000 vehicle	s				-	Autos:	15		
Peak Hour I	Percentage:	10%			Me	dium Truc	ks (2 A	(xles	15		
Peak Ho	our Volume:	700 vehicle	s		He	avy Truck	s (3+ A	(xles	15		
Vel	nicle Speed:	45 mph		1/	ehicle	Miv					
Near/Far Lar	e Distance:	76 feet				icleType		Dav	Evening	Night	Daily
Site Data								77.5%		9.6%	. ,
Por	rier Heiaht:	0.0 feet			М	edium Tru		84.8%		10.3%	
Barrier Type (0-Wa	all, 1-Berm):	0.0			1	Heavy Tru	cks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis		100.0 feet		N	oise S	ource Elev	ations	s (in fe	et)		
Centerline Dist. t		100.0 feet				Autos:	2.0	000			
Barrier Distance t		0.0 feet			Mediu	m Trucks:	4.0	000			
Observer Height (/		5.0 feet			Heav	y Trucks:	8.0	006	Grade Ad	justment	: 0.0
	d Elevation:	0.0 feet		-							
	d Elevation:	0.0 feet		L	ane Eq	uivalent E		_	eet)		
F	Road Grade:	0.0%				Autos:	92.5				
	Left View: Right View:	-90.0 degre 90.0 degre				m Trucks: y Trucks:	92.5 92.5				
FHWA Noise Mode	l Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresn	el	Barrier Att	en Bei	rm Atten
Autos:	68.46	-3.50		-4.11		-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45	-20.74		-4.11		-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-24.69		-4.11		-1.20		-5.16	0.0	000	0.000
Unmitigated Noise											
,,	Leq Peak Ho			eq Eve		Leq N			Ldn		NEL
Autos:		9.6	57.7		56.0		49.9		58.5		59.2
Medium Trucks:		3.4	51.9		45.5		44.0		52.4		52.7
Heavy Trucks:		1.2	52.8		43.8		45.0		53.4		53.5
Vehicle Noise:		1.5	59.7		56.6		51.9	1	60.5	5	60.9
Centerline Distanc	e to Noise C	ontour (in feet	:)	70 dl	BA	65 dF	3 <i>A</i>	6	i0 dBA	55	dBA
			Ldn:	23		50			107		231
		С	NEL:	25		53			115	_	248

Tuesday, May 29, 2012

	FH\	WA-RD-77-108	HIGH	WAY N	IOISE P	REDICTION	ON MC	DDEL			
Road Na	rio: Existing me: Newport C ent: North of Sa					Project I Job Nu			С		
SITE	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	ditions (	Hard :	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	6,500 vehicle	s					Autos:	15		
Peak Hou	r Percentage:	10%			Me	dium Tru	cks (2	Axles):	15		
Peak	Hour Volume:	650 vehicle	S		He	avy Truci	ks (3+	Axles):	15		
V	ehicle Speed:	45 mph		-	Vehicle	Miv					
Near/Far L	ane Distance:	76 feet		H		icleType	Т	Dav	Evening	Night	Daily
Site Data							ıtos:	77.5%		9.6%	-
D.	arrier Height:	0.0 feet			M	edium Tru	icks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-V		0.0				Heavy Tru	icks:	86.5%	2.7%	10.8%	0.74%
Centerline D	ist. to Barrier:	100.0 feet		H	Noise S	ource Ele	vatio	ns (in f	eet)		
Centerline Dist	to Observer:	100.0 feet		F	10.00	Autos		.000	501)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Trucks	_	.000			
Observer Height	(Above Pad):	5.0 feet				vy Trucks.		.006	Grade Ad	liustment	. 0.0
F	Pad Elevation:	0.0 feet		L		*				,	
Ro	oad Elevation:	0.0 feet		L	Lane Eq	uivalent	Distar	ıce (in	feet)		
	Road Grade:	0.0%				Autos.		.547			
	Left View:	-90.0 degre	es		Mediu	m Trucks	92	.504			
	Right View:	90.0 degre	es		Hear	y Trucks	92	.547			
FHWA Noise Mod	del Calculation	s									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fres	nel	Barrier Att	en Bei	m Atten
Autos	68.46	-3.82		-4.1	1	-1.20		-4.87	0.0	000	0.000
Medium Trucks		-21.06		-4.1		-1.20		-4.97		000	0.000
Heavy Trucks	84.25	-25.02		-4.1	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Nois	se Levels (with	out Topo and	barrie	r atten	uation)						
VehicleType	Leq Peak Hou			Leq E		Leq N	light		Ldn		NEL
Autos	: 59	.3	57.4		55.7		49.	6	58.	2	58.8
Medium Trucks	: 53	.1	51.6		45.2		43.	.7	52.	1	52.4
Heavy Trucks			52.5		43.5		44.		53.	1	53.2
Vehicle Noise	: 61	.2	59.4		56.3		51.	6	60.	1	60.6
Centerline Distar	ice to Noise C	ontour (in feet	)					,		1	
			L		70 dBA 65 dBA		60 dBA			dBA	
			Ldn:	_	22 47		102		_	220	
		C	NEL:	2	4	51			109	2	36

	FH	WA-RD-77-108	HIGHV	NAY N	IOISE PR	EDICT	ION MC	DEL			
	o: Existing e: Newport C nt: South of S					,,	Name: lumber:		C		
	SPECIFIC IN	NPUT DATA				Ν	IOISE	MODE	EL INPUT	S	
Highway Data					Site Con	ditions	(Hard =	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	6,000 vehicles	3					Autos	: 15		
Peak Hour	Percentage:	10%			Med	dium Tr	ucks (2	Axles)	: 15		
Peak H	our Volume:	600 vehicles	3		Hea	avy Tru	cks (3+	Axles)	: 15		
Vei	hicle Speed:	45 mph		H	Vehicle I	Nix					
Near/Far Lai	ne Distance:	76 feet		-		cleType		Day	Evening	Night	Daily
Site Data							Autos:	77.59	-	9.69	
Rai	rier Heiaht:	0.0 feet			Me	dium T	rucks:	84.89	6 4.9%	10.39	6 1.84%
Barrier Type (0-W		0.0			H	leavy T	rucks:	86.59	6 2.7%	10.89	6 0.74%
Centerline Dis	st. to Barrier:	100.0 feet		H	Noise So	urco E	lovation	ne (in i	(not)		
Centerline Dist.	to Observer:	100.0 feet		· F	WOISE 30	Auto.		.000	eei)		
Barrier Distance	to Observer:	0.0 feet			Mediur			.000			
Observer Height (.	Above Pad):	5.0 feet				/ Truck		.006	Grade Ad	iustmer	nt: 0.0
Pa	ad Elevation:	0.0 feet			ricav,	rruck	3. 0	.000	0/440 / (4)	doumor	n. 0.0
Roa	ad Elevation:	0.0 feet			Lane Equ	ıivalen			feet)		
F	Road Grade:	0.0%				Auto		.547			
	Left View:	-90.0 degree	es		Mediun			.504			
	Right View:	90.0 degree	es		Heav	/ Truck	s: 92	.547			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dista		Finite		Fres		Barrier Att		erm Atten
Autos:	68.46			-4.1		-1.20		-4.87		000	0.000
Medium Trucks:	79.45			-4.1		-1.20		-4.97	0.0		0.000
Heavy Trucks:	84.25	-25.36		-4.1	1	-1.20		-5.16	0.0	000	0.000
<b>Unmitigated Noise</b>	e Levels (with	out Topo and	barrier	r atten	uation)						
	Leq Peak Ho			Leq E	vening	Leq	Night		Ldn		CNEL
Autos:			57.1		55.3		49.	-	57.9		58.5
Medium Trucks:			51.2		44.9		43.	-	51.8		52.0
Heavy Trucks:			52.2		43.1		44.		52.7		52.8
Vehicle Noise:			59.1		55.9		51.	2	59.8	3	60.2
Centerline Distance	ce to Noise C	ontour (in feet,	)								
			L		dBA		dBA		60 dBA	5	5 dBA
			Ldn:	2			15		97		208
		CI	VEL:	2	2	4	18		104		224

	FHW	A-RD-77-108	HIGHV	VAY NO	DISE PF	REDICTI	ON MO	DEL			
Scenario: Existi Road Name: Newp Road Segment: North	ort CTF					Project Job N	Name: umber:		С		
SITE SPECIF	IC INF	PUT DATA				N	IOISE I	MODE	L INPUT	S	
Highway Data				S	ite Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily Traffic (A	dt): 6	5,500 vehicles	3					Autos:	15		
Peak Hour Percenta	age:	10%			Me	dium Tru	icks (2 i	Axles):	15		
Peak Hour Volu	me:	650 vehicles	3		He	avy Truc	cks (3+ )	Axles):	15		
Vehicle Spe	ed:	45 mph		V	ehicle I	Miv					
Near/Far Lane Distar	nce:	76 feet				icleType		Dav	Evening	Night	Daily
Site Data					*0111		Autos:	77.5%	0	9.6%	,
Barrier Hei	wht.	0.0 feet			Me	edium Tr	ucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-Wall, 1-Be	•	0.0			F	leavy Tr	ucks:	86.5%	2.7%	10.8%	0.749
Centerline Dist. to Bar	,	100.0 feet		_							
Centerline Dist. to Obser		100.0 feet		N	loise So	ource El		•	eet)		
Barrier Distance to Obser		0.0 feet				Autos		000			
Observer Height (Above P	ad).	5.0 feet				n Trucks		000			
Pad Eleva	,	0.0 feet			Heav	y Trucks	s: 8.	006	Grade Ad	justment	: 0.0
Road Fleva	ion:	0.0 feet		L	ane Equ	uivalent	Distan	ce (in t	feet)		
Road Elevai Road Gra		0.0 feet 0.0%		L	ane Equ	uivalent Autos		<b>ce (in 1</b> 547	feet)		
	ade:	0.0%	es	L	·		s: 92.		feet)		
Road Gra	ade: iew:			L	Mediur	Autos	s: 92. s: 92.	547	reet)		
Road Gro Left V Right V	ade: iew: iew:	0.0% -90.0 degree		L	Mediur	Autos n Trucks	s: 92. s: 92.	547 504	reet)		
Road Gro Left V Right V	ade: iew: iew: lations	0.0% -90.0 degree			Mediur	Autos m Trucks ry Trucks	s: 92. s: 92.	547 504 547	<b>Barrier Att</b>	en Ber	rm Atten
Road Gra Left V Right V FHWA Noise Model Calcu VehicleType REMI	ade: iew: iew: lations	0.0% -90.0 degree 90.0 degree	es		Mediur Heav	Autos m Trucks ry Trucks	s: 92. s: 92. s: 92.	547 504 547	Barrier Att	en Ber	
Road Gri Left V Right V FHWA Noise Model Calcu VehicleType REMI Autos:	ade: iew: iew: lations	0.0% -90.0 degree 90.0 degree	es	ance	Mediur Heav Finite	Autos m Trucks y Trucks Road	s: 92. s: 92. s: 92.	547 504 547	Barrier Att		0.00
Road Gri Left V Right V FHWA Noise Model Calcu VehicleType REMI Autos: Medium Trucks:	ade: iew: iew: lations EL	0.0% -90.0 degree 90.0 degree Traffic Flow	es	ance -4.11	Mediur Heav	Autos m Trucks ry Trucks Road -1.20	s: 92. s: 92. s: 92.	547 504 547 547 nel	Barrier Att 0.0	000	0.00
Road Gri Left V Right V FHWA Noise Model Calcu VehicleType Autos: Medium Trucks: Heavy Trucks:	ade: iew: iew: lations EL 168.46 79.45	0.0% -90.0 degree 90.0 degree Traffic Flow -3.82 -21.06 -25.02	Dista	-4.11 -4.11 -4.11	Mediur Heav Finite	Autos m Trucks ny Trucks Road -1.20 -1.20	s: 92. s: 92. s: 92.	547 504 547 -4.87 -4.87	Barrier Att 0.0	000	0.00
Road Gri Left V Right V FHWA Noise Model Calcu. VehicleType REMI Autos: Medium Trucks: Heavy Trucks: Unmitigated Noise Levels VehicleType Leq Pee	ade: iew: lations EL   688.46 79.45 34.25 (without	0.0% -90.0 degree 90.0 degree  Traffic Flow -3.82 -21.06 -25.02  ut Topo and Leq Day	Dista	-4.11 -4.11 -4.11	Mediur Heav Finite	Autos m Trucks y Trucks Road -1.20 -1.20 -1.20	s: 92. s: 92. s: 92. Fresi	547 504 547 ——————————————————————————————————	Barrier Att 0.0 0.0 0.0	000 000 000	0.00 0.00 0.00
Road Gri Left V FHWA Noise Model Calcu VehicleType REMI Autos: Medium Trucks: Heavy Trucks: VehicleType Leq Pes VehicleType Leq Pes Autos:	ade: iew: iew: lations EL   68.46 79.45 34.25 (without 59.3	0.0% -90.0 degree 90.0 degree  Traffic Flow -3.82 -21.06 -25.02  ut Topo and Leq Day	Dista	-4.11 -4.11 -4.11	Mediur Heav Finite	Autos m Trucks y Trucks Road -1.20 -1.20 -1.20	s: 92. s: 92. s: 92. Fresi	547 504 547 ——————————————————————————————————	Barrier Att 0.0 0.0 0.0 Ldn 58.2	000 000 000 000	0.00 0.00 0.00 NEL 58.
Road Gri Left V Right V FHWA Noise Model Calcu. VehicleType REMI Autos: Medium Trucks: Heavy Trucks: Unmitigated Noise Levels VehicleType Leq Pee Autos: Medium Trucks:	ade: iew: iew: lations EL   68.46 79.45 34.25 (withour 59.3 53.1	0.0% -90.0 degree 90.0 degree -3.82 -21.06 -25.02 ut Topo and Leq Day	Dista	-4.11 -4.11 -4.11	Finite  sation) ening 55.7 45.2	Autos m Trucks y Trucks Road -1.20 -1.20 -1.20	s: 92. s: 92. Fresi  Night 49.6 43.7	547 504 547 -4.87 -4.97 -5.16	Barrier Att 0.0 0.0 0.0 Ldn 58.2	000 000 000 000	0.00 0.00 0.00 NEL 58. 52.
Road Gri Left V Right V FFHWA Noise Model Calcu. VehicleType REMI Autos: Medium Trucks: Heavy Trucks: VehicleType Leq Pea Autos: Medium Trucks: Heavy Trucks:	ade: iew: lations EL   588.46 79.45 34.25 (withour 59.3 53.1	0.0% -90.0 degree 90.0 degree -3.82 -21.06 -25.02 ut Topo and Leq Day	Dista	-4.11 -4.11 -4.11	Finite  Finite  sation) ening 55.7 45.2 43.5	Autos m Trucks y Trucks Road -1.20 -1.20 -1.20	S: 92. S: 92. Fresi  Night 49.6 43.1 44.1	547 504 547 -4.87 -4.87 -5.16	Barrier Att 0.0 0.0 0.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	000 000 000 000 Ci	0.00 0.00 0.00 NEL 58. 52. 53.
Road Gri Left V Right V FHWA Noise Model Calcu. VehicleType REMI Autos: Medium Trucks: Heavy Trucks: VehicleType Leq Pea Autos: Medium Trucks: Heavy Trucks: Vehicle Noise: Vehicle Noise:	ade: iew: iew: lations EL   68.46 79.45 34.25 (withour 59.3 53.1 53.9	0.0% -90.0 degree 90.0 degree Traffic Flow -3.82 -21.06 -25.02 ut Topo and Leq Day	Dista	-4.11 -4.11 -4.11	Finite  sation) ening 55.7 45.2	Autos m Trucks y Trucks Road -1.20 -1.20 -1.20	s: 92. s: 92. Fresi  Night 49.6 43.7	547 504 547 -4.87 -4.87 -5.16	Barrier Att 0.0 0.0 0.0 Ldn 58.2	000 000 000 000 Ci	0.00 0.00 0.00 NEL 58. 52. 53.
Road Gri Left V Right V FFHWA Noise Model Calcu. VehicleType REMI Autos: Medium Trucks: Heavy Trucks: VehicleType Leq Pea Autos: Medium Trucks: Heavy Trucks:	ade: iew: iew: lations EL   68.46 79.45 34.25 (withour 59.3 53.1 53.9	0.0% -90.0 degree 90.0 degree Traffic Flow -3.82 -21.06 -25.02 ut Topo and Leq Day	Dista	-4.11 -4.11 -4.11	Finite  Finite  sation) ening 55.7 45.2 43.5 56.3	Autos m Trucks y Trucks Road -1.20 -1.20 -1.20 Leq	S: 92. S: 92. Fresi  Night 49.6 43.1 44.1	547 504 547 547 -4.87 -4.97 -5.16	Barrier Att 0.0 0.0 0.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0000 0000 0000 Co	0.00 0.00 0.00
Road Gri Left V Right V FFHWA Noise Model Calcu. VehicleType REMI Autos: Medium Trucks: Heavy Trucks: VehicleType Leq Pee Autos: Medium Trucks: Heavy Trucks: Vehicle Noise:	ade: iew: iew: lations EL   68.46 79.45 34.25 (withour 59.3 53.1 53.9	0.0% -90.0 degree 90.0 degree 7raffic Flow -3.82 -21.06 -25.02 ut Topo and Leq Day	Dista	-4.11 -4.11 -4.11 -4.11 <b>attenu</b> Leq Eve	Finite  Finite  sation) ening 55.7 45.2 43.5 56.3	Autos m Trucks y Trucks ry Trucks Road -1.20 -1.20 -1.20 Leq	92.5: 92.  Fresi  Night 49.6 43.7 51.6	547 504 547 547 -4.87 -4.97 -5.16	Barrier Att 0.0 0.0 0.0 1.0 58.2 52.53. 60.	0000 0000 0000 Ci	0.00 0.00 0.00 NEL 58. 52. 53. 60.

FI	IWA-RD-77-108	HIGHWA'	Y NOISE P	REDICTIO	N MODEL			
Scenario: Existing Road Name: Newport O Road Segment: North of S					ame: NNC nber: 8211			
SITE SPECIFIC I	NPUT DATA			NO	ISE MOE	EL INPUT	S	
Highway Data			Site Cor	nditions (H	lard = 10,	Soft = 15)		
Average Daily Traffic (Adt):	5,600 vehicles				Auto	s: 15		
Peak Hour Percentage:	10%		Me	edium Truci	ks (2 Axles	s): 15		
Peak Hour Volume:	560 vehicles		He	eavy Trucks	(3+ Axles	:): 15		
Vehicle Speed:	45 mph		Vehicle	Miv				
Near/Far Lane Distance:	76 feet			nicleType	Dav	Evening	Night	Daily
Site Data			V C/		tos: 77.5		9.6%	. ,
	0.0 feet		M	ledium Truc			10.3%	
Barrier Height: Barrier Type (0-Wall, 1-Berm):	0.0 reet 0.0			Heavy Truc	cks: 86.5	% 2.7%	10.8%	
Centerline Dist. to Barrier:	100.0 feet							
Centerline Dist. to Observer:	100.0 feet		Noise S	ource Elev		feet)		
Barrier Distance to Observer:	0.0 feet			Autos:	2.000			
Observer Height (Above Pad):	5.0 feet			m Trucks:	4.000			
Pad Elevation:	0.0 feet		Hea	vy Trucks:	8.006	Grade Ad	justment	: 0.0
Road Elevation:	0.0 feet		Lane Eq	uivalent D	istance (i	n feet)		
Road Grade:	0.0%			Autos:	92.547			
Left View:	-90.0 degree	s	Mediu	m Trucks:	92.504			
Right View:	90.0 degree	s	Hea	vy Trucks:	92.547			
FHWA Noise Model Calculatio	ns		1					
VehicleType REMEL	Traffic Flow	Distanc	e Finite	Road	Fresnel	Barrier Att	en Bei	m Atten
Autos: 68.4	6 -4.47	-4	1.11	-1.20	-4.8	7 0.0	000	0.000
Medium Trucks: 79.4			1.11	-1.20	-4.9		000	0.000
Heavy Trucks: 84.2			1.11	-1.20	-5.1	6 0.0	000	0.000
Unmitigated Noise Levels (wit								
VehicleType Leq Peak Ho	. , .,	6.8	Evening	Leq Ni	-	Ldn 57.6		NEL 58.2
		60.8 60.9	55.0 44.6		49.0 43.0	51.5		51.7
		i1.9	44.0		44.1	52.4	-	52.5
		8.8	55.6		50.9	59.5		59.9
Centerline Distance to Noise (	Contour (in feet)							
	,	7	0 dBA	65 dE	BA .	60 dBA	55	dBA
	L	.dn:	20	43		92	1	99

Tuesday, May 29, 2012

FH	WA-RD-77-108 H	IIGHWAY I	NOISE PI	REDICTIO	OM MO	DEL			
Scenario: Existing				Project N	lame:	NNCP	С		
Road Name: Newport 0	TR			Job Nu	mber:	8211			
Road Segment: South of S	anta Rosa								
SITE SPECIFIC I	NPUT DATA						L INPUT	S	
Highway Data			Site Con	ditions (l	Hard =	10, S	oft = 15)		
Average Daily Traffic (Adt):	9,100 vehicles					Autos:	15		
Peak Hour Percentage:	10%		Me	dium Truc	cks (2 /	Axles):	15		
Peak Hour Volume:	910 vehicles		He	avy Truck	is (3+ /	Axles):	15		
Vehicle Speed:	45 mph	F	Vehicle	Mix					
Near/Far Lane Distance:	76 feet			icleType		Day	Evening	Night	Daily
Site Data				A	ıtos:	77.5%	12.9%	9.6%	97.42%
Barrier Height:	0.0 feet		M	edium Tru	icks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0		I	Heavy Tru	icks:	86.5%	2.7%	10.8%	0.749
Centerline Dist. to Barrier:	100.0 feet	ŀ	Noise S	ource Ele	vation	s (in f	eet)		
Centerline Dist. to Observer:	100.0 feet	ŀ	110/30 00	Autos:		000	oct)		
Barrier Distance to Observer:	0.0 feet		Modius	m Trucks:		000			
Observer Height (Above Pad):	5.0 feet			vy Trucks:		000	Grade Ad	iustment	. 0.0
Pad Elevation:	0.0 feet		i icav	y ITUCKS.	0.	000	Orado ria	dourione	. 0.0
Road Elevation:	0.0 feet		Lane Eq	uivalent l	Distan	ce (in	feet)		
Road Grade:	0.0%			Autos:		547			
Left View:	-90.0 degrees	,		m Trucks:		504			
Right View:	90.0 degrees	;	Heav	y Trucks:	92.	547			
FHWA Noise Model Calculation	ıs								
VehicleType REMEL	Traffic Flow	Distance	Finite	Road	Fresr	nel	Barrier Att	en Ber	m Atten
Autos: 68.46	-2.36	-4.1	1	-1.20		-4.87	0.0	000	0.00
Medium Trucks: 79.45	-19.60	-4.1	1	-1.20		-4.97	0.0	000	0.00
Heavy Trucks: 84.25	-23.55	-4.1	1	-1.20		-5.16	0.0	000	0.00
Unmitigated Noise Levels (wit	nout Topo and ba	arrier atter	nuation)						
VehicleType Leq Peak Ho			vening	Leq N	_		Ldn		NEL
		3.9	57.1		51.1		59.7		60.3
		3.0	46.7		45.1		53.6	-	53.
,		4.0	44.9		46.2		54.5		54.
Vehicle Noise: 6	2.6 60	0.9	57.7		53.0	)	61.6	6	62.
Centerline Distance to Noise C	contour (in feet)								
			dBA	65 d		- (	60 dBA		dBA
			28	59			128		75
	CNF	=1	30	64			137	2	95

	FH	WA-RD-77-10	8 HIGI	HWAY	NOISE P	REDICTI	ON MO	DEL			
Road Nam	io: Existing le: Newport C nt: North of Sa					Project Job Ni	Name: umber:		С		
SITE	SPECIFIC II	NPUT DATA				N	IOISE I	ИODE	L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	7,200 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tru	icks (2	4xles):	15		
Peak H	lour Volume:	720 vehicl	es		He	eavy Truc	ks (3+ )	4xles):	15		
Ve	hicle Speed:	45 mph			Vehicle	Miv					
Near/Far La	ne Distance:	76 feet				icleType		Dav	Evening	Night	Daily
Site Data							Autos:	77.5%	-	9.6%	,
Pa	rrier Heiaht:	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.3%	6 1.84%
Barrier Type (0-W		0.0				Heavy Tr	ucks:	86.5%	2.7%	10.8%	6 0.74%
Centerline Di		100.0 feet			M-1 0			- /! 6	41		
Centerline Dist.	to Observer:	100.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Autos		000			
Observer Height (	Above Pad):	5.0 feet				m Trucks		000	0		
	ad Elevation:	0.0 feet			Heal	y Trucks	s: 8.	006	Grade Ad	ustmen	t: 0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalent	Distan	ce (in	feet)		
	Road Grade:	0.0%				Autos	s: 92.	547			
	Left View:	-90.0 degr	ees		Mediu	m Trucks	s: 92.	504			
	Right View:	90.0 degr	ees		Hear	y Trucks	s: 92	547			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fresi	nel	Barrier Att	en Be	rm Atten
Autos:	68.46	-3.3	3	-4.	11	-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45		2	-4.		-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-24.5	7	-4.	11	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	d barri	er atte	nuation)						
VehicleType	Leq Peak Ho	ur Leq Da	ay .	Leq E	Evening	Leq i	Night		Ldn	(	CNEL
Autos:		9.8	57.9		56.1		50.0		58.7		59.3
Medium Trucks:		3.5	52.0		45.7		44.		52.6	-	52.8
Heavy Trucks:	54	1.4	52.9		43.9		45.2	2	53.5	5	53.6
Vehicle Noise:	6	1.6	59.9		56.7		52.0	)	60.6	3	61.0
Centerline Distant	ce to Noise C	ontour (in fee	et)								
·					dBA		dBA	- (	60 dBA		5 dBA
			Ldn:		24	5			109		235
		(	NEL:		25	5	4		117		252

	FHV	VA-RD-77-108	HIGHV	VAY NO	OISE PI	REDICTI	ON MO	DEL			
	c: Existing e: Newport CT t: East of New					Project Job No	Name: umber:		С		
SITE S	PECIFIC IN	PUT DATA				N	OISE	MODE	L INPUT	S	
Highway Data				S	ite Con	ditions (	Hard =	: 10, Sc	oft = 15)		
Average Daily T	raffic (Adt):	8,800 vehicle	S					Autos:	15		
Peak Hour F	Percentage:	10%			Me	dium Tru	icks (2	Axles):	15		
Peak Ho	our Volume:	880 vehicles	8		He	avy Truc	ks (3+ )	Axles):	15		
Veh	icle Speed:	45 mph		1/	/ehicle	Miv					
Near/Far Lan	e Distance:	76 feet		Ľ		icleType		Day	Evening	Night	Daily
Site Data							utos:	77.5%	0		97.42%
Rari	rier Height:	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wa		0.0			1	Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	t. to Barrier:	100.0 feet			laisa S	ource Ele	ovation	e (in fe	not)		
Centerline Dist. to	o Observer:	100.0 feet			ioise si	Autos		000	ei)		
Barrier Distance to	o Observer:	0.0 feet			Modiu	m Trucks	-	000			
Observer Height (A	Above Pad):	5.0 feet				vy Trucks		000	Grade Ad	iustment	. 0.0
Pa	d Elevation:	0.0 feet								dourioria	. 0.0
Roa	d Elevation:	0.0 feet		L	ane Eq	uivalent	Distan	ce (in t	feet)		
R	Road Grade:	0.0%				Autos		.547			
	Left View:	-90.0 degree	es			m Trucks		.504			
	Right View:	90.0 degree	es		Heav	y Trucks	: 92.	.547			
FHWA Noise Mode	l Calculations	5									
VehicleType	REMEL	Traffic Flow	Dista			Road	Fresi		Barrier Att		m Atten
Autos:	68.46	-2.51		-4.11		-1.20		-4.87		000	0.00
Medium Trucks:	79.45	-19.74		-4.11		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-23.70		-4.11		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barrier	attenu	uation)						
VehicleType	Leq Peak Hou	.,.,		Leq Ev	ening	Leq I			Ldn		NEL
Autos:	60.	-	58.7		57.0		50.9	-	59.5	-	60.
Medium Trucks:	54.		52.9		46.5		45.0	-	53.4		53.
Heavy Trucks: Vehicle Noise:	55. 62.		53.8 60.7		44.8 57.6		46.0 52.1	-	54.4 61.4		54. 61.
					57.6		52.	9	61.4	+	61.5
Centerline Distance	e to Noise Co	ntour (in feet	)	70 di	ID A	05.	IBA		i0 dBA		dBA
			l dn:	70 di		55		C	125		169

FHWA-RD-77-10	8 HIGHWA	/ NOISE P	REDICTION I	MODEL			
Scenario: Existing			Project Nam		c		
Road Name: Newport CTR			Job Numbe	er: 8211			
Road Segment: South of San Miguel							
SITE SPECIFIC INPUT DATA		0:: 0			L INPUTS	S	
Highway Data		Site Coi	nditions (Har				
Average Daily Traffic (Adt): 10,600 vehicle	es			Autos:	15		
Peak Hour Percentage: 10%			edium Trucks		15		
Peak Hour Volume: 1,060 vehicl	es	He	eavy Trucks (3	3+ Axles):	15		
Vehicle Speed: 45 mph		Vehicle	Mix				
Near/Far Lane Distance: 76 feet		Veh	icleType	Day	Evening	Night	Daily
Site Data			Autos	77.5%	12.9%	9.6%	97.42
Barrier Height: 0.0 feet		M	edium Trucks	: 84.8%	4.9%	10.3%	1.84
Barrier Type (0-Wall, 1-Berm): 0.0			Heavy Trucks	86.5%	2.7%	10.8%	0.74
Centerline Dist. to Barrier: 100.0 feet		Noise S	ource Elevati	ons (in fe	eet)		
Centerline Dist. to Observer: 100.0 feet			Autos:	2.000			
Barrier Distance to Observer: 0.0 feet		Mediu	m Trucks:	4.000			
Observer Height (Above Pad): 5.0 feet		Hear	vy Trucks:	8.006	Grade Adj	iustment	0.0
Pad Elevation: 0.0 feet			·				
Road Elevation: 0.0 feet		Lane Eq	uivalent Dist		leet)		
Road Grade: 0.0%				92.547			
Left View: -90.0 degr				92.504			
Right View: 90.0 degr	ees	Hear	vy Trucks:	92.547			
FHWA Noise Model Calculations							
VehicleType REMEL Traffic Flow					Barrier Atte	_	m Attei
Autos: 68.46 -1.7		1.11	-1.20	-4.87	0.0		0.0
Medium Trucks: 79.45 -18.9		1.11	-1.20	-4.97		000	0.0
Heavy Trucks: 84.25 -22.8	-	l.11	-1.20	-5.16	0.0	000	0.0
Unmitigated Noise Levels (without Topo an VehicleType Leg Peak Hour Leg Da		enuation) Evening	Leg Night		Ldn		NEL
Autos: 61.4	59.5	57.8		1.7	60.4		VEL 61
Medium Trucks: 55.2	53.7	47.3		5.8	54.2		54
Heavy Trucks: 56.0	54.6	45.6		6.8	55.2	-	55
Vehicle Noise: 63.3	61.5	58.4		3.7	62.3		62
Centerline Distance to Noise Contour (in fee	et)						
•		0 dBA	65 dBA	6	0 dBA	55	dBA
	Ldn:	30	66		141	3	05
	ONEL:	33	70		152		27

Tuesday, May 29, 2012

	FH\	WA-RD-77-108 H	IGHWAY	NOISE P	REDICTIO	ON M	ODEL			
Road Name	c: Existing e: Newport C t: South of No	TR ewport CTR (Circ	:le		Project I Job Nu			С		
		IPUT DATA			NI	NISE	MODE	L INPUT	S	
Highway Data	JI ECH IC III	II OT DATA		Site Con	ditions (					
Average Daily 1	Traffic (Adt):	12,900 vehicles					Autos:	15		
Peak Hour I	. ,	10%		Me	dium Tru	cks (2	Axles):	15		
	our Volume:	1.290 vehicles			avy Truck		,	15		
	icle Speed:	45 mph					/			
Near/Far Lar		76 feet		Vehicle			_			
				Veh	icleType		Day	Evening	Night	Daily
Site Data						utos:	77.5%		9.6%	
	rier Height:	0.0 feet			edium Tru		84.8%		10.3%	1.84%
Barrier Type (0-Wa	. ,	0.0		· /	Heavy Tru	ICKS:	86.5%	2.7%	10.8%	0.74%
Centerline Dis		100.0 feet		Noise So	ource Ele	vatio	ns (in fe	eet)		
Centerline Dist. t		100.0 feet			Autos	. 2	2.000			
Barrier Distance t		0.0 feet		Mediu	m Trucks.	. 4	1.000			
Observer Height (/	,	5.0 feet		Heav	y Trucks:		3.006	Grade Ad	justment	0.0
	d Elevation:	0.0 feet				D:	/ /	E41		
	d Elevation:	0.0 feet		Lane Eq	uivalent   Autos			reet)		
F	Road Grade:	0.0%			Autos: m Trucks	٠.	2.547			
	Left View:	-90.0 degrees				-	2.504 2.547			
	Right View:	90.0 degrees		neav	y Trucks:	94	2.547			
FHWA Noise Mode	I Calculation REMEL	s Traffic Flow	Distance	Finito	Road	Fres	ano!	Barrier Att	lon Box	m Atten
VehicleType Autos:	68.46	-0.85	-4.		-1.20	ries	-4.87		000	0.00
Medium Trucks:	79.45	-0.65 -18.08	-4. -4.		-1.20		-4.07 -4.97		000	0.00
Heavy Trucks:	84.25	-22.04	-4.		-1.20		-5.16		000	0.00
Unmitigated Noise					0		00	0.1		0.000
-	Leg Peak Hou	-		Evening	Leg N	liaht	T	l dn	C	VFI
Autos:	62		).4	58.6	20911	52	.6	61.:	-	61.8
Medium Trucks:	56		1.5	48.2		46		55.	_	55.3
Heavy Trucks:	56	.9 55	5.5	46.4		47	.7	56.0	0	56.
Vehicle Noise:	64	.1 62	2.4	59.2		54	.6	63.	1	63.0
Centerline Distanc	e to Noise Co	ontour (in feet)								
			70	) dBA	65 d	BA	6	60 dBA	55	dBA
		Lo	dn:	35	75	, –		161	3	47

Tuesday, May 29, 2012

	FHV	WA-RD-77-108	HIGH	WAY I	NOISE P	REDICT	ION MC	DEL			
Road Nam	no: Existing ne: Newport Cont: North of Co						Name: lumber:		С		
SITE	SPECIFIC IN	IPUT DATA				Ν	IOISE	MODE	L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	14,900 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	ucks (2	Axles):	15		
Peak H	lour Volume:	1,490 vehicle	s		He	avy Truc	cks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		-	Vehicle	Miv					
Near/Far La	ne Distance:	76 feet				icleType		Day	Evening	Night	Daily
Site Data						-	Autos:	77.5%	12.9%	9.6%	97.42%
Ba	rrier Heiaht:	0.0 feet			М	edium Ti	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0				Heavy Ti	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Di		100.0 feet		İ	Noise S	ource El	levatio	ns (in fe	eet)		
Centerline Dist.		100.0 feet		-		Auto:	s: 2	.000			
Barrier Distance		0.0 feet			Mediu	m Truck	s: 4	.000			
Observer Height	,	5.0 feet			Hear	vy Truck	s: 8	.006	Grade Ad	justment	: 0.0
	ad Elevation:	0.0 feet		-				,,			
	ad Elevation:	0.0 feet		ŀ	Lane Eq				eet)		
	Road Grade:	0.0%				Auto		.547			
	Left View:	-90.0 degree				m Truck		.504			
	Right View:	90.0 degree	es		Hea	y Truck	s: 92	.547			
FHWA Noise Mod	el Calculation										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Bei	rm Atten
Autos:	68.46	-0.22		-4.1	1	-1.20		-4.87	0.0	000	0.000
Medium Trucks:		-17.46		-4.1		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-21.41		-4.1	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Nois								_			
VehicleType	Leq Peak Hou	., .,		Leq E	vening	,	Night		Ldn		NEL
Autos:	62		61.0		59.3		53.	_	61.8	-	62.4
Medium Trucks:	56		55.2		48.8		47.	-	55.		56.0
Heavy Trucks: Vehicle Noise:			56.1 63.0		47.1 59.9		48. 55.	-	56.1 63.1		56.8 64.2
Centerline Distan					33.3		55.		00.	,	04.2
Centernine Distant	CE IO MOISE CO	ontour (III leet	,	70	dBA	65	dBA	1 6	i0 dBA	55	dBA
			Ldn:		38	8	32		177		382
		CI	NEL:	4	11	8	38		190	2	110

Autos: 77.5%   12.9%   9.6%   97.4		FHW	A-RD-77-108	HIGHV	WAY N	IOISE PI	REDICTI	ON MC	DEL			
Highway Data	Road Nam	e: Santa Rosa	ı Joaquin Hills	3						С		
Average Daily Traffic (Adt): 14,500 vehicles   Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15   Vehicle Speed: 45 mph Near/Far Lane Distance: 52 feet   Vehicle Hix Vehicle Type   Day   Evening   Night   Dail Near/Far Lane Distance: 52 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Dail Near/Far Lane Distance: 52 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Dail Near/Far Lane Distance: 52 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Dail Near/Far Lane Distance: 10.00 feet   Medium Trucks: 86.5%   2.7%   10.8%   0.7   Noise Source Elevations: (In feet)   Noise Near Pad Elevation: 0.0 feet   Noise Near Pad Elevation: 0.00 feet   No	SITE	SPECIFIC INF	PUT DATA				N	OISE	MODE	L INPUT	S	
Peak Hour Percentage:	Highway Data					Site Con	ditions	(Hard =	: 10, Sc	oft = 15)		
Peak Hour Volume: 1,450 vehicles   Vehicle Speed: 45 mph   Vehicle Mix   Vehicle Mix	Average Daily	Traffic (Adt): 14	,500 vehicle	s					Autos:	15		
Vehicle Speed:   45 mph   Vehicle Mix   Vehicle Type   Day   Evening   Night   Dai   Autos: 77.5%   12.9%   0.9%   0.9%   12.9%   0.	Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles):	15		
Near/Far Lane Distance:   52 feet     VehicleType   Day   Evening   Night   Dai	Peak H	lour Volume: 1	,450 vehicle	s		He	avy Truc	ks (3+	Axles):	15		
Near/Far Lane Distance:   52 feet   VehicleType   Day   Evening   Night   Dai	Ve	hicle Speed:	45 mph		-	Vahiola	Miv					
Autos: 77.5%   12.9%   9.6%   97.4	Near/Far La	ne Distance:	52 feet						Day	Evenina	Night	Daily
Barrier Height:   0.0   feet	Site Data							utos:		0		,
Barrier Type (0-Wall, 1-Berm): 0.0   Centerline Dist. to Dasrrier to Distance to Observer: 100.0 feet Barrier Distance to Observer: 0.0 feet Barrier Distance Dist	Por	vriar Unimba	0.0 foot			М	edium Tr	ucks:	84.8%	4.9%	10.3%	
Centerline Dist. to Diserver:   100.0   feet						1	Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Observer: 100.0   feet Barrier Distance to Observer: 0.0   feet Observer Height (Above Pad): 5.0   feet Pad Elevation: 0.0   feet Road			100.0 feet		٠,	Maina C	ouroo El	overtion.	o (in f	2041		
Barrier Distance to Observer: 0.0 feet   Medium Trucks: 4.000   Heavy Trucks: 8.006   Grade Adjustment: 0.0   Grade Adjustme	Centerline Dist.	to Observer:	100.0 feet		-	voise 3			•	ei)		
Diserver Height (Above Pad):	Barrier Distance	to Observer:	0.0 feet			Modiu						
Pad Elevation: 0.0 feet	Observer Height (	Above Pad):	5.0 feet							Grada Ad	livetmant	. 0.0
Road Grade:	Pa	ad Elevation:	0.0 feet			пеац	ry Trucks	s. o.	.000	Orauc Au,	justinoni	. 0.0
Left View:	Roa	ad Elevation:	0.0 feet		I	Lane Eq	uivalent	Distan	ce (in i	feet)		
FHWA Noise Model Calculations   VehicleType   REMEL   Traffic Flow   Distance   Finite Road   Fresnel   Barrier Atten   Bern Atten   Redurn Trucks:   84.56   -0.34   -4.39   -1.20   -4.87   0.000	ı	Road Grade:	0.0%				Autos	3: 96	.607			
VehicleType		Left View:	-90.0 degre	es								
VehicleType		Right View:	90.0 degre	es		Heav	y Trucks	3: 96	.608			
Autos: 68.46	FHWA Noise Mode	el Calculations										
Medium Trucks:         79.45         -17.58         -4.39         -1.20         -4.97         0.000         0.000           Heavy Trucks:         84.25         -21.53         -4.39         -1.20         -5.16         0.000         0.000           Unmitigated Noise Levels (without Tropo and barrier attenuation)           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         62.5         60.6         58.9         52.8         61.4         6.6           Medium Trucks:         56.3         54.8         48.4         46.9         55.3         5.5           Heavy Trucks:         57.1         55.7         46.7         47.9         56.3         5.5           Vehicle Noise:         64.4         62.6         59.5         54.8         63.3         6           Centerline Distance to Noise Contour (in feet)           Ldn:         36         77         167         360	VehicleType	REMEL		Dista				Fresi	nel	Barrier Att	en Bei	rm Atten
Heavy Trucks:   84.25   -21.53   -4.39   -1.20   -5.16   0.000   0.000	Autos:	68.46	-0.34		-4.39	9	-1.20		-4.87	0.0	000	0.00
Unmitigated Noise   Levels (without Topo and barrier attenuation)						-						0.000
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         62.5         60.6         58.9         52.8         61.4         6           Medium Trucks:         56.3         54.8         48.4         46.9         55.3         5           Heavy Trucks:         57.1         55.7         46.7         47.9         56.3         5           Vehicle Noise:         64.4         62.6         59.5         54.8         63.3         6           Centerline Distance to Noise Contour (in feet)           Ldn:         36         77         167         360	Heavy Trucks:	84.25	-21.53		-4.39	9	-1.20		-5.16	0.0	000	0.000
Autos:         62.5         60.6         58.9         52.8         61.4         6           Medium Trucks:         56.3         54.8         48.4         46.9         55.3         5           Heavy Trucks:         57.1         55.7         46.7         47.9         56.3         5           Vehicle Noise:         64.4         62.6         59.5         54.8         63.3         6           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         36         77         167         360									,		_	
Medium Trucks:         56.3         54.8         48.4         46.9         55.3         5           Heavy Trucks:         57.1         55.7         46.7         47.9         56.3         5           Vehicle Noise:         64.4         62.6         59.5         54.8         63.3         6           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         36         77         167         360	,,				Leg E		Leq					
Heavy Trucks:         57.1         55.7         46.7         47.9         56.3         5           Vehicle Noise:         64.4         62.6         59.5         54.8         63.3         6           Centerline Distance to Noise Contour (in feet)           Ldn:         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         36         77         167         360												62.0
Vehicle Noise:         64.4         62.6         59.5         54.8         63.3         6           Centerline Distance to Noise Contour (in feet)           70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         36         77         167         360									-			55.6
Centerline Distance to Noise Contour (in feet)           70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         36         77         167         360									-			56.4 63.4
70 dBA 65 dBA 60 dBA 55 dBA Ldn: 36 77 167 360			•			35.3		54.		00.0	,	03.0
Ldn: 36 77 167 360	Centeriine Distant	Le to Noise Cor	nour (in reet	,	70 c	IBA	65 (	dBA	6	i0 dBA	55	dBA
CNEL: 39 83 179 386				Ldn:	30	6	7	7		167	3	360
C.V.E. 00 00 170 000			C	VEL:	39	9	8	3		179	3	386

	FHV	WA-RD-77-108	HIGHV	VAY NO	ISE PI	REDICT	ION MO	DEL			
Road Nam	io: Existing e: Santa Rosa nt: North of Sa	a ın Joaquin Hills	<b>.</b>				Name: lumber:		С		
SITE :	SPECIFIC IN	IPUT DATA				١	IOISE N	ИODE	L INPUT	S	
Highway Data				S	ite Cor	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	3,800 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2 /	Axles):	15		
Peak H	lour Volume:	380 vehicle	s		He	avy Tru	cks (3+ /	Axles):	15		
Ve	hicle Speed:	45 mph		V	ehicle	Miv					
Near/Far Lai	ne Distance:	52 feet				icleType	)	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.429
Bai	rrier Height:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-W		0.0			1	Heavy T	rucks:	86.5%	2.7%	10.8%	0.749
Centerline Dis		100.0 feet		N	oise S	ource E	levation	s (in fe	eet)		
Centerline Dist.		100.0 feet				Auto	s: 2.	000			
Barrier Distance		0.0 feet			Mediu	m Truck	s: 4.	000			
Observer Height (	,	5.0 feet			Heav	vy Truck	s: 8.	006	Grade Ad	justment	: 0.0
	ad Elevation:	0.0 feet		-				,,			
	ad Elevation:	0.0 feet		Li	ane Eq		t Distan		reet)		
I	Road Grade:	0.0%				Auto		607			
	Left View:	-90.0 degre				m Truck		566			
	Right View:	90.0 degre	es		Heat	y Truck	s: 96.	808			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dista		Finite	Road	Fresr		Barrier Att		rm Atten
Autos:	68.46	-6.15		-4.39		-1.20		-4.87		000	0.00
Medium Trucks:	79.45	-23.39		-4.39		-1.20		-4.97		000	0.00
Heavy Trucks:	84.25	-27.35		-4.39		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise VehicleType	Leg Peak Hou			attenu Leg Eve		Loa	Night	1	Ldn		NEL
Autos:	56		54.8	LUY LVE	53.0	Ley	47.0	)	55.6		56.
Medium Trucks:	50		49.0		42.6		41.1		49.5	-	49.
Heavy Trucks:	51		49.9		40.9		42.1		50.5	-	50.
Vehicle Noise:	58	1.5	56.8		53.7		49.0	)	57.5	5	58.
Centerline Distance	ce to Noise Co	ontour (in feet	)								
			L	70 dE	BA	65	dBA	6	60 dBA	55	dBA
			Ldn:	15		- :	32		68	1	147
			NEL:								

Tuesday, May 29, 2012

FI	IWA-RD-77-108 HIG	HWAY N	OISE PI	REDICTIO	N MODE	L			
Scenario: Existing Road Name: Santa Ros Road Segment: North of N				Project N Job Nu	lame: Nt mber: 82		3		
SITE SPECIFIC I	NPUT DATA			NO	DISE MO	DDE	L INPUTS	3	
Highway Data			Site Cor	ditions (l	Hard = 1	o, So	ft = 15)		
Average Daily Traffic (Adt):	12,200 vehicles				Αι	ıtos:	15		
Peak Hour Percentage:	10%		Me	dium Truc	ks (2 Ax	les):	15		
Peak Hour Volume:	1,220 vehicles		He	avy Truck	s (3+ Ax	les):	15		
Vehicle Speed:	45 mph	١.	/ehicle	Miss					
Near/Far Lane Distance:	52 feet	-		icleType		av	Evening	Night	Daily
Site Data			Veri			ay 7.5%	12.9%	9.6%	
	0.0 (		М	edium Tru		1.8%		10.3%	
Barrier Height: Barrier Type (0-Wall, 1-Berm):	0.0 feet 0.0			Heavy Tru		6.5%	,	10.8%	
Centerline Dist. to Barrier:	100.0 feet			,					•
Centerline Dist. to Observer:	100.0 feet	1	Voise S	ource Ele		_	et)		
Barrier Distance to Observer:	0.0 feet			Autos:					
Observer Height (Above Pad):	5.0 feet			m Trucks:		-			
Pad Flevation:	0.0 feet		Heav	y Trucks:	8.00	6	Grade Adj	ustment	: 0.0
Road Flevation:	0.0 feet	1	ane Eq	uivalent l	Distance	(in f	eet)		
Road Grade:	0.0%			Autos:	96.60	7			
Left View:	-90.0 degrees		Mediu	m Trucks:	96.56	6			
Right View:	90.0 degrees		Heav	y Trucks:	96.60	8			
FHWA Noise Model Calculatio	ns								
VehicleType REMEL	Traffic Flow Di	istance	Finite	Road	Fresnei		Barrier Atte	en Bei	rm Atten
Autos: 68.4	6 -1.09	-4.39	)	-1.20	-4	.87	0.0	000	0.000
Medium Trucks: 79.4		-4.39		-1.20		.97	0.0		0.000
Heavy Trucks: 84.2	5 -22.28	-4.39	)	-1.20	-5	.16	0.0	000	0.000
Unmitigated Noise Levels (wit									
VehicleType Leq Peak Ho		Leq Ev		Leq N			Ldn		NEL
	1.8 59.9		58.1		52.1		60.7		61.3
	5.5 54.0 6.4 55.0		47.7 45.9		46.1 47.2		54.6 55.5		54.8 55.7
	3.6 61.9		58.7		54.0		62.6	)	63.0
Centerline Distance to Noise C	Contour (in feet)	70 c	IRΔ	65 d	RΔ	6	0 dBA	55	dBA
	l dn:			69		U	149		320
	CNFI:		_	74			160		344
	OHEE.							`	

	FH\	WA-RD-77-108	HIGH	WAY	NOISE P	REDICT	ION MO	DEL			
Road Nam	io: Existing ne: Santa Rosa nt: South of N						Name: lumber:		С		
SITE	SPECIFIC IN	IPUT DATA				١	NOISE I	MODE	L INPUT	S	
Highway Data					Site Cor	ditions	(Hard =	: 10, S	oft = 15)		
Average Daily	Traffic (Adt):	6,800 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	680 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		ł	Vehicle	Miv					
Near/Far La	ne Distance:	52 feet				icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	77.5%		9.69	
Pa	rrier Heiaht:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.39	% 1.84%
Barrier Type (0-W		0.0				Heavy T	rucks:	86.5%	2.7%	10.89	% 0.74%
Centerline Di		100.0 feet			Noise S	ourco E	lovation	e (in f	oot)		
Centerline Dist.	to Observer:	100.0 feet		ł	NOISE 3	Auto		000	eet)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		000			
Observer Height	(Above Pad):	5.0 feet				n Truck vy Truck		000	Grade Ad	iuotmoi	nt: 0.0
P	ad Elevation:	0.0 feet			пеа	ry Truck	.s. o.	006	Grade Au	usunei	и. О.О
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 96.	607			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 96.	566			
	Right View:	90.0 degre	es		Hear	y Truck	s: 96	.608			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresi	nel	Barrier Att	en B	erm Atten
Autos:	68.46	-3.63		-4.3	39	-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45	-20.86		-4.3	39	-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-24.82		-4.3	39	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	r atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening	Leq	Night		Ldn		CNEL
Autos:	59	-	57.3		55.6		49.	-	58.1		58.7
Medium Trucks:			51.5		45.1		43.0	-	52.0	-	52.3
Heavy Trucks:	53		52.4		43.4		44.0	_	53.0		53.1
Vehicle Noise:		**	59.3		56.2		51.	5	60.0	)	60.5
Centerline Distan	ce to Noise C	ontour (in feet	)							,	
			L		dBA		dBA	- (	60 dBA	5	5 dBA
			Ldn:	-	22		47		101		217
		Ci	VEL:		23	ŧ	50		108		233

	FH\	WA-RD-77-10	8 HIGH	A YAWI	IOISE PI	REDICTI	ON MO	DEL			
	io: Existing e: Avocado nt: South of Sa	an Miguel				Project Job Ni	Name: umber:		0		
SITE S	SPECIFIC IN	IPUT DATA				N	OISE I	MODE	L INPUT	S	
Highway Data					Site Con	nditions	Hard =	10, So	ft = 15)		
Average Daily	Traffic (Adt):	13,100 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tru	icks (2 /	Axles):	15		
Peak H	our Volume:	1,310 vehicle	es		He	eavy Truc	ks (3+ /	Axles):	15		
Vei	hicle Speed:	40 mph		H	Vehicle	Mix					
Near/Far Lai	ne Distance:	36 feet		F		icleType		Day	Evening	Night	Daily
Site Data							utos:	77.5%	Ü		97.42%
Rai	rier Height:	0.0 feet			M	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0			1	Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	st. to Barrier:	100.0 feet		H	Noise Si	ource El	evation	s (in fe	et)		
Centerline Dist.	to Observer:	100.0 feet		F		Autos		000			
Barrier Distance	to Observer:	0.0 feet			Madiu	m Trucks		000			
Observer Height (.	Above Pad):	5.0 feet				vy Trucks		006	Grade Ad	iustment.	0.0
	ad Elevation:	0.0 feet		_		•					
	ad Elevation:	0.0 feet			Lane Eq	uivalent			eet)		
F	Road Grade:	0.0%				Autos		412			
	Left View:	-90.0 degre				m Trucks		372			
	Right View:	90.0 degre	ees		Heat	y Trucks	. 98.	413			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow		stance		Road	Fresi		Barrier Att		m Atten
Autos:	66.51	-0.27		-4.5		-1.20		-4.87		000	0.00
Medium Trucks:	77.72	-17.5		-4.5		-1.20		-4.97		000	0.00
Heavy Trucks:	82.99	-21.46	6	-4.5	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	d barri	er atten	uation)			,		,	
VehicleType	Leq Peak Hou	,	_	Leq E	vening	Leq			Ldn		VEL
Autos:	60		58.6		56.9		50.8	-	59.4		60.
Medium Trucks:	54		53.0		46.6		45.1		53.5		53.8
Heavy Trucks: Vehicle Noise:	55		54.4 60.8		45.4 57.5		46.6 53.0		55.0 61.5		55. 62.
					51.5		53.0	,	01.	,	02.
Centerline Distanc	ce to Noise C	ontour (in fee	et)	70 0	dBA	65 (	iBA	6	0 dBA	55	dBA
			I dn:	2	7	5	9	1	126	2	72

FI	IWA-RD-77-10	8 HIGHW	AY NOISE	PREDICTIO	N MODEL			
Scenario: Existing					ame: NNCF	C		
Road Name: Avocado				Job Nur	nber: 8211			
Road Segment: North of S	San Miguel							
SITE SPECIFIC I	NPUT DATA		0		ISE MODE		S	
Highway Data			Site C	onditions (F				
Average Daily Traffic (Adt):	4,200 vehic	les			Autos.			
Peak Hour Percentage:	10%			Medium Truc				
Peak Hour Volume:	420 vehic	les		Heavy Truck	s (3+ Axles).	15		
Vehicle Speed:	40 mph		Vehic	le Mix				
Near/Far Lane Distance:	36 feet		1	ehicleType	Day	Evening	Night	Daily
Site Data				Au	tos: 77.5%	6 12.9%	9.6%	97.42
Barrier Height:	0.0 feet			Medium Tru	cks: 84.89	6 4.9%	10.3%	1.84
Barrier Type (0-Wall, 1-Berm):	0.0			Heavy Tru	cks: 86.5%	6 2.7%	10.8%	0.74
Centerline Dist. to Barrier:	100.0 feet		Noise	Source Elev	ations (in f	eet)		
Centerline Dist. to Observer:	100.0 feet			Autos:	2.000			
Barrier Distance to Observer:	0.0 feet		Me	dium Trucks:	4.000			
Observer Height (Above Pad):	5.0 feet		Н	eavy Trucks:	8.006	Grade Adj	iustment	0.0
Pad Elevation:	0.0 feet		_					
Road Elevation:	0.0 feet		Lane	Equivalent L		teet)		
Road Grade:	0.0%			Autos:	98.412			
Left View:	-90.0 deg			dium Trucks:	98.372			
Right View:	90.0 deg	rees	Н	eavy Trucks:	98.413			
FHWA Noise Model Calculatio		,						
VehicleType REMEL	Traffic Flow			ite Road	Fresnel	Barrier Atte	_	m Attei
Autos: 66.5			-4.51	-1.20	-4.87		000	0.0
Medium Trucks: 77.7		-	-4.51	-1.20	-4.97		000	0.0
Heavy Trucks: 82.9			-4.51	-1.20	-5.16	0.0	000	0.0
Unmitigated Noise Levels (with VehicleType Leg Peak Ho			<b>ittenuatio</b> eg Evening		aht	Ldn	-	NEL
,,	5.6	53.7	, ,	1.9 Leq IVI	45.9	54.5		IVEL 55
	9.6	48.1		1.7	40.1	48.6		48
	0.9	49.5		).4	41.7	50.0		50
	7.6	55.9		2.6	48.0	56.6		57
Centerline Distance to Noise (	Contour (in fe	et)						
	-		70 dBA	65 dE	BA .	60 dBA	55	dBA
		Ldn:	13	27		59	1	27

Tuesday, May 29, 2012

Fi	IWA-RD-77-108 F	HIGHWAY N	IOISE PI	REDICTIO	ON MC	DEL							
Scenario: Existing				Project I	lame:	NNCF	C						
Road Name: Avocado			Job Number: 8211										
Road Segment: North of 0	Coast Highway												
SITE SPECIFIC	NPUT DATA						L INPUT	S					
Highway Data			Site Con	ditions (	Hard :	= 10, S	oft = 15)						
Average Daily Traffic (Adt):	9,200 vehicles					Autos.	15						
Peak Hour Percentage:	10%		Me	dium Tru	cks (2	Axles).	15						
Peak Hour Volume:	920 vehicles		He	avy Truck	rs (3+	Axles).	15						
Vehicle Speed:	40 mph	-	Vehicle	Wix									
Near/Far Lane Distance:	36 feet			icleType		Day	Evening	Night	Daily				
Site Data				A	utos:	77.5%	6 12.9%	9.6%	97.42%				
Barrier Height:	0.0 feet		M	edium Tru	icks:	84.89	6 4.9%	10.3%	1.84%				
Barrier Type (0-Wall, 1-Berm):	0.0		ŀ	leavy Tru	icks:	86.5%	6 2.7%	10.8%	0.74%				
Centerline Dist. to Barrier:	100.0 feet	-	Noise So	ource Ele	vatio	ns (in f	eet)						
Centerline Dist. to Observer:	100.0 feet	F		Autos		.000	,						
Barrier Distance to Observer:	0.0 feet		Madiu	n Trucks.	_	.000							
Observer Height (Above Pad):	5.0 feet			y Trucks:		.006	Grade Ad	iustment	0.0				
Pad Elevation:	0.0 feet	L											
Road Elevation:	0.0 feet	L	Lane Eq	uivalent i			feet)						
Road Grade:	0.0%			Autos:		.412							
Left View:	-90.0 degrees	S		n Trucks.		.372							
Right View:	90.0 degrees	S	Heav	y Trucks:	98	.413							
FHWA Noise Model Calculation	ns												
VehicleType REMEL	Traffic Flow	Distance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten				
Autos: 66.5	1 -1.80	-4.5	1	-1.20		-4.87	0.0	000	0.000				
Medium Trucks: 77.7	2 -19.04	-4.5	1	-1.20		-4.97	0.0	000	0.000				
Heavy Trucks: 82.9	9 -23.00	-4.5	1	-1.20		-5.16	0.0	000	0.000				
Unmitigated Noise Levels (wi	hout Topo and b	arrier atter	uation)										
VehicleType Leq Peak H			vening	Leq N	_		Ldn		NEL				
		7.1	55.3		49.	-	57.	-	58.5				
		1.5	45.1		43.	-	52.0	-	52.2				
,		2.9	43.8		45.		53.4		53.6				
Vehicle Noise:	1.0 5	9.3	56.0		51.	4	60.	)	60.4				
Centerline Distance to Noise	Contour (in feet)												
			dBA	65 d			60 dBA		dBA				
			:1	46			100		15				
	CN	FI: 2	3	50	)		107	2	30				

	FH	WA-RD-77-108	HIGH	WAY I	NOISE PE	REDICT	ION MO	DDEL			
	o: Existing e: Macarthur nt: North of Bo	onita Canyon				.,	t Name: lumber:		PC .		
SITE S	SPECIFIC IN	NPUT DATA							EL INPUT	S	
Highway Data					Site Con	ditions	(Hard =	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	72,900 vehicles	S					Autos	: 15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles)	: 15		
Peak H	our Volume:	7,290 vehicles	3		He	avy Tru	cks (3+	Axles)	: 15		
Vei	hicle Speed:	45 mph		ŀ	Vehicle I	Mix					
Near/Far Lai	ne Distance:	76 feet		H		cleType	э	Day	Evening	Night	Daily
Site Data							Autos:	77.59	6 12.9%	9.69	% 97.42%
Rai	rier Heiaht:	0.0 feet			Me	edium T	rucks:	84.89	6 4.9%	10.39	% 1.84%
Barrier Type (0-W		0.0			F	łeavy T	rucks:	86.59	6 2.7%	10.89	% 0.74%
Centerline Dis	st. to Barrier:	100.0 feet		ŀ	Noise Sc	urco F	levation	ne (in i	foot)		
Centerline Dist.	to Observer:	100.0 feet		H	NOISE SC	Auto		.000	eei)		
Barrier Distance	to Observer:	0.0 feet			Madiu	n Truck		.000			
Observer Height (.	Above Pad):	5.0 feet				y Truck		.006	Grade Ad	iustmei	nt: 0.0
Pa	ad Elevation:	0.0 feet		L						uoumo	и. о.о
Roa	ad Elevation:	0.0 feet		L	Lane Eq	uivalen			feet)		
F	Road Grade:	0.0%				Auto		.547			
	Left View:	-90.0 degree	es			n Truck		.504			
	Right View:	90.0 degree	es		Heav	y Truck	s: 92	.547			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite		Fres		Barrier Att		erm Atten
Autos:	68.46			-4.1		-1.20		-4.87		000	0.000
Medium Trucks:	79.45			-4.1		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-14.52		-4.1	1	-1.20		-5.16	0.0	000	0.000
<b>Unmitigated Noise</b>	e Levels (with	out Topo and	barrie	er atter	nuation)						
	Leq Peak Ho			Leq E	vening	Leq	Night		Ldn		CNEL
Autos:			67.9		66.2		60.		68.7		69.3
Medium Trucks:			62.1		55.7		54.	_	62.6	-	62.9
Heavy Trucks:			63.0		54.0		55.		63.6		63.7
Vehicle Noise:	-		69.9		66.8		62.	1	70.6	6	71.1
Centerline Distance	ce to Noise C	ontour (in feet,	)								
			L		dBA		dBA		60 dBA		i5 dBA
			Ldn:		10		37		511		1,101
		CI	VEL:	1	18	2	:55		548		1,181

	FH	WA-RD-77-108	HIGH	WAY N	IOISE P	REDICT	ION MO	DEL			
Road Nam	io: Existing e: Macarthur nt: North of Sa	an Joaquin Hills	;				t Name: lumber:		С		
SITE S	SPECIFIC IN	NPUT DATA				1	NOISE I	MODE	L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	: 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	61,400 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Ti	ucks (2	Axles):	15		
Peak H	our Volume:	6,140 vehicle	S		He	eavy Tru	cks (3+ )	Axles):	15		
Vei	hicle Speed:	45 mph		-	Vehicle	Miv					
Near/Far Lai	ne Distance:	76 feet		H.		icleTvp	۵ .	Dav	Evening	Niaht	Dailv
Site Data					*01	,,,	Autos:	77.5%	-	9.6%	. ,
Pos	rier Heiaht:	0.0 feet			M	edium 7	rucks:	84.8%		10.3%	
Barrier Type (0-W		0.0 leet				Heavy 7	rucks:	86.5%	2.7%	10.8%	0.749
Centerline Dis	. ,	100.0 feet									
Centerline Dist		100.0 feet		1	Noise S		levation		eet)		
Barrier Distance		0.0 feet				Auto		000			
Observer Height (		5.0 feet				m Truck		000			
	ad Flevation:	0.0 feet			Hea	y Truck	rs: 8.	006	Grade Adj	ustment	: 0.0
	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Distan	ce (in i	feet)		
	Road Grade:	0.0%				Auto	s: 92.	.547			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 92.	504			
	Right View:	90.0 degre			Hea	y Truck	rs: 92	547			
FHWA Noise Mode	el Calculation	ıs		-							
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fresi		Barrier Att		rm Atten
Autos:	68.46			-4.11		-1.20		-4.87	0.0		0.00
Medium Trucks:	79.45			-4.11		-1.20		-4.97		000	0.00
Heavy Trucks:	84.25	-15.26		-4.11	1	-1.20		-5.16	0.0	000	0.00
Unmitigated Noise											
	Leq Peak Ho		_	Leq E			Night		Ldn		NEL
Autos:			67.2		65.4		59.4		68.0		68.
Medium Trucks:			61.3		55.0		53.4		61.9		62.
Heavy Trucks:			62.3		53.2		54.		62.8		62.
Vehicle Noise:			69.2		66.0		61.3	3	69.9	)	70.
Centerline Distanc	ce to Noise C	ontour (in feet	)	70 c	IRΔ	65	dBA	-	60 dBA	55	dBA
			Ldn:	91			12		456		982
		0	NFI:	10		_	27		489		054
		0.		10	-	-			. 50	.,	

FHWA-RD-77-108 HIGHV	WAY NOISE PREDICTION MODEL
Scenario: Existing Road Name: Macarthur Road Segment: South of Bonita Canyon	Project Name: NNCPC Job Number: 8211
SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS
Highway Data	Site Conditions (Hard = 10, Soft = 15)
Average Daily Traffic (Adt): 61,400 vehicles	Autos: 15
Peak Hour Percentage: 10%	Medium Trucks (2 Axles): 15
Peak Hour Volume: 6,140 vehicles	Heavy Trucks (3+ Axles): 15
Vehicle Speed: 45 mph	Vehicle Mix
Near/Far Lane Distance: 76 feet	VehicleType Day Evening Night Daily
Site Data	Autos: 77.5% 12.9% 9.6% 97.42%
Barrier Height: 0.0 feet	Medium Trucks: 84.8% 4.9% 10.3% 1.84%
Barrier Type (0-Wall, 1-Berm): 0.0	Heavy Trucks: 86.5% 2.7% 10.8% 0.74%
Centerline Dist. to Barrier: 100.0 feet	Noise Source Elevations (in feet)
Centerline Dist. to Observer: 100.0 feet	Autos: 2.000
Barrier Distance to Observer: 0.0 feet	Medium Trucks: 4.000
Observer Height (Above Pad): 5.0 feet	Heavy Trucks: 8.006 Grade Adjustment: 0.0
Pad Elevation: 0.0 feet  Road Elevation: 0.0 feet	Lane Equivalent Distance (in feet)
Road Grade: 0.0%	Autos: 92.547
Left View: -90.0 degrees	Medium Trucks: 92.504
Right View: 90.0 degrees	Heavy Trucks: 92.547
FHWA Noise Model Calculations	
VehicleType REMEL Traffic Flow Dista	
Autos: 68.46 5.93	-4.11 -1.20 - <i>4.8</i> 7 0.000 0.000
Medium Trucks: 79.45 -11.31	-4.11 -1.20 -4.97 0.000 0.000
Heavy Trucks: 84.25 -15.26	-4.11 -1.20 -5.16 0.000 0.000
Unmitigated Noise Levels (without Topo and barrier  VehicleType Leq Peak Hour Leq Day	Leg Evening Leg Night Ldn CNEL
Autos: 69.1 67.2	65.4 59.4 68.0 68.1
Medium Trucks: 62.8 61.3	55.0 53.4 61.9 62.
Heavy Trucks: 63.7 62.3	53.2 54.5 62.8 62.1
Vehicle Noise: 70.9 69.2	66.0 61.3 69.9 70.
Centerline Distance to Noise Contour (in feet)	
	70 dBA 65 dBA 60 dBA 55 dBA
Ldn:	98 212 456 982
CNEL:	105 227 489 1,054

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FI	łWA-RD-77-108 ∣	HIGHWAY	NOISE P	REDICTIO	N MODI	EL					
Scenario: Existing			Project Name: NNCPC Job Number: 8211								
Road Name: Macarthui				Job Nu	mber: 82	211					
Road Segment: South of S	San Joaquin Hills										
SITE SPECIFIC I	NPUT DATA						L INPUT	S			
Highway Data			Site Cor	nditions (F	lard = 1	0, Sc	ft = 15)				
Average Daily Traffic (Adt):	38,800 vehicles				A	ıtos:	15				
Peak Hour Percentage:	10%		Me	edium Truc	ks (2 Ax	les):	15				
Peak Hour Volume:	3,880 vehicles		He	eavy Truck	s (3+ Ax	les):	15				
Vehicle Speed:	45 mph		Vehicle	Mix							
Near/Far Lane Distance:	76 feet			icleType	D	av	Evening	Night	Daily		
Site Data						-, 7.5%	-	9.6%	-		
Barrier Height:	0.0 feet		М	edium Tru		4.8%		10.3%			
Barrier Type (0-Wall, 1-Berm):	0.0 feet			Heavy Tru	cks: 8	6.5%	2.7%	10.8%	0.74%		
Centerline Dist. to Barrier:	100.0 feet										
Centerline Dist. to Observer:	100.0 feet		Noise S	ource Ele		_	et)				
Barrier Distance to Observer:	0.0 feet			Autos:							
Observer Height (Above Pad):	5.0 feet			m Trucks:		-					
Pad Elevation:	0.0 feet		Hear	vy Trucks:	8.00	16	Grade Ad	ustment	0.0		
Road Elevation:	0.0 feet		Lane Eq	uivalent l	Distance	(in i	eet)				
Road Grade:	0.0%			Autos:	92.54	17					
Left View:	-90.0 degree	s	Mediu	m Trucks:	92.50	)4					
Right View:	90.0 degree		Hear	vy Trucks:	92.54	17					
FHWA Noise Model Calculatio	ns										
VehicleType REMEL	Traffic Flow	Distance	e Finite	Road	Fresne	,	Barrier Att	en Bei	m Atten		
Autos: 68.4	6 3.94	-4	.11	-1.20	-4	1.87	0.0	000	0.000		
Medium Trucks: 79.4	5 -13.30	-4	.11	-1.20	-4	1.97	0.0	000	0.000		
Heavy Trucks: 84.2	5 -17.26	-4	.11	-1.20	-6	5.16	0.0	000	0.000		
Unmitigated Noise Levels (wit	hout Topo and L	parrier att	enuation)								
VehicleType Leq Peak Ho	our Leq Day	Leq	Evening	Leq N	ight		Ldn	C	NEL		
Autos: 6	7.1 6	5.2	63.4		57.4		66.0	)	66.6		
Medium Trucks: 6	0.8	9.3	53.0		51.4		59.9	9	60.1		
Heavy Trucks: 6	1.7 €	0.3	51.2		52.5		60.8	3	61.0		
Vehicle Noise: 6	8.9	7.2	64.0		59.3		67.9	9	68.3		
Centerline Distance to Noise C	Contour (in feet)										
			0 dBA	65 di		$\epsilon$	0 dBA		dBA		
	L	.dn:	72	156	-		336 360		23		
		IFI:	78	167					76		

Tuesday, May 29, 2012

	Fŀ	HWA-RD-77	-108 HIG	HWAY	NOISE P	REDICTION	ON MC	DEL			
Road Na	ario: Existing me: Macarthu ent: North of S					Project I Job Nu			C		
	SPECIFIC I	NPUT DA	TA						L INPUT	S	
Highway Data					Site Cor	nditions (	Hard =	: 10, Sc	oft = 15)		
Average Dail	y Traffic (Adt):	34,800 veh	nicles					Autos:	15		
Peak Hou	ır Percentage:	10%			Me	dium Tru	cks (2	Axles):	15		
Peak	Hour Volume:	3,480 veh	nicles		He	eavy Truci	ks (3+	Axles):	15		
1	ehicle Speed:	45 mp	h		Vehicle	Mix					
Near/Far L	ane Distance:	76 fee	et			icleType		Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	12.9%	9.6%	97.42%
В	arrier Height:	0.0 fe	et		М	edium Tru	ıcks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-	Wall, 1-Berm):	0.0				Heavy Tru	ıcks:	86.5%	2.7%	10.8%	0.74%
	Dist. to Barrier:	100.0 fe			Noise S	ource Ele	evation	s (in fe	eet)		
	t. to Observer:					Autos.	: 2	.000			
Barrier Distanc					Mediu	m Trucks	: 4	.000			
Observer Heigh	. ,				Hear	vy Trucks.	: 8	.006	Grade Ad	justment	: 0.0
	Pad Elevation:										
R	oad Elevation:		et		Lane Eq	uivalent			feet)		
	Road Grade:					Autos.		.547			
	Left View:		•			m Trucks		.504			
	Right View:	90.0 de	egrees		Hea	y Trucks.	: 92	.547			
FHWA Noise Mo	del Calculatio	ns									
VehicleType	REMEL	Traffic Flo	ow Di	istance	Finite	Road	Fres	nel	Barrier Att	en Bei	rm Atten
Autos		6 3	3.46	-4.	11	-1.20		-4.87	0.0	000	0.000
Medium Trucks	3: 79.4	5 -13	3.77	-4.	11	-1.20		-4.97	0.0	000	0.000
Heavy Trucks	84.2	5 -17	7.73	-4.	11	-1.20		-5.16	0.0	000	0.000
Unmitigated Noi	se Levels (wit	hout Topo	and barr	ier atte	nuation)						
VehicleType	Leq Peak Ho	our Leq	Day	Leq E	vening	Leq N	light		Ldn	С	NEL
Autos	s: 6	6.6	64.7		62.9		56.	9	65.5	5	66.1
Medium Trucks		60.4	58.9		52.5		51.		59.4		59.6
Heavy Trucks		31.2	59.8		50.8		52.		60.4		60.5
Vehicle Noise	e: 6	88.4	66.7		63.6		58.	9	67.4	1	67.9
Centerline Dista	nce to Noise (	Contour (in	feet)					_			
					dBA	65 d		1 6	i0 dBA		dBA
			Ldn:		67	14	-		312		673
			CNEL:		72	15	5		335	7	722

	FH\	WA-RD-77-108	HIGH	NAY N	OISE P	REDICT	ON MC	DEL			
	Existing Macarthur Morth of Co	oast Highway					Name: umber:		С		
SITE S	PECIFIC IN	IPUT DATA				Ν	IOISE	MODE	L INPUT	S	
Highway Data				5	Site Cor	nditions	(Hard =	: 10, Sc	oft = 15)		
Average Daily T	raffic (Adt):	28,700 vehicle	s					Autos:	15		
Peak Hour F	Percentage:	10%			Me	dium Tru	ucks (2	Axles):	15		
Peak Ho	ur Volume:	2,870 vehicle	s		He	avy Truc	cks (3+.	Axles):	15		
Veh	icle Speed:	45 mph		,	/ehicle	Miv					
Near/Far Lan	e Distance:	76 feet				icleType		Day	Evening	Night	Daily
Site Data					*01.		Autos:	77.5%	0		97.429
Parr	ier Height:	0.0 feet			М	edium Ti	rucks:	84.8%		10.3%	
Barrier Type (0-Wa		0.0				Heavy Ti	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist	. ,	100.0 feet		١.	/ C	F		- /! #-	- 41		
Centerline Dist. to	Observer:	100.0 feet		,	voise S	ource El			et)		
Barrier Distance to	Observer:	0.0 feet				Auto: m Truck:		.000			
Observer Height (A	lbove Pad):	5.0 feet				vy Truck		.006	Grade Ad	iustment	0.0
Pad	d Elevation:	0.0 feet				•				doumont	0.0
Road	d Elevation:	0.0 feet		L	.ane Eq	uivalen			feet)		
R	oad Grade:	0.0%				Auto		.547			
	Left View:	-90.0 degre				m Truck		.504			
	Right View:	90.0 degre	es		Hear	y Truck	s: 92	.547			
FHWA Noise Model	l Calculation	s									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresi	nel	Barrier Att	en Ber	m Atten
Autos:	68.46	2.63		-4.11		-1.20		-4.87		000	0.00
Medium Trucks:	79.45	-14.61		-4.11		-1.20		-4.97		000	0.00
Heavy Trucks:	84.25	-18.57		-4.11		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise	•							1			
	Leq Peak Hot			Leq Ev		Leq	Night		Ldn		VEL
Autos:	65		63.9		62.1		56.		64.7		65.
Medium Trucks:	59		58.0		51.7		50.		58.6		58.
Heavy Trucks: Vehicle Noise:	60		59.0 65.9		49.9 62.7		51. 58.		59.5 66.6		59. 67.
· 00.0 / v0/30.					52.7		50.		00.0		07.
Contarlina Diatana			,								
Centerline Distance	e to Noise C	ontour (m reci		70 d	IBA	65	dBA	6	i0 dBA	55	dBA
Centerline Distance	e to Noise C	ontour (in ree	Ldn:	70 d			dBA 27	6	30 dBA 275		dBA 92

	FHV	VA-RD-77-108	HIGHW	AY NOI	ISE PF	REDICT	ION MO	DDEL			
Scenario	o: Existing					Projec	t Name:	NNCP	С		
Road Name	e: Macarthur					Job N	Number:	8211			
Road Segmen	t: South of Sa	ın Miguel									
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data				Sit	e Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily 1	Traffic (Adt): 2	28,600 vehicle	S					Autos:	15		
Peak Hour I	Percentage:	10%			Me	dium Ti	rucks (2	Axles):	15		
Peak Ho	our Volume:	2,860 vehicle	S		He	avy Tru	icks (3+	Axles):	15		
Vel	nicle Speed:	45 mph		Ve	hicle l	Mix					
Near/Far Lar	ne Distance:	76 feet			Veh	icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.429
Bar	rier Height:	0.0 feet			Me	edium 7	rucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-Wa		0.0			F	Heavy 7	rucks:	86.5%	2.7%	10.8%	0.749
Centerline Dis	t. to Barrier:	100.0 feet		No	ise So	ource E	levatio	ns (in f	eet)		
Centerline Dist. t	o Observer:	100.0 feet				Auto		2.000	,		
Barrier Distance t	o Observer:	0.0 feet			Mediui	m Truck	(S: 4	1.000			
Observer Height (/	Above Pad):	5.0 feet				y Truck		3.006	Grade Ad	liustment	: 0.0
Pa	d Elevation:	0.0 feet								,	
Roa	d Elevation:	0.0 feet		La	ne Eq		t Dista	_ •	feet)		
F	Road Grade:	0.0%				Auto		2.547			
	Left View:	-90.0 degree		1		m Truck		2.504			
	Right View:	90.0 degree	es		Heav	y Truck	(s: 92	2.547			
FHWA Noise Mode	l Calculation:	s									
VehicleType	REMEL	Traffic Flow	Distan	ce	Finite	Road	Fres	snel	Barrier At	ten Bei	rm Atten
Autos:	68.46	2.61		-4.11		-1.20		-4.87	0.	000	0.00
Medium Trucks:	79.45	-14.63		-4.11		-1.20		-4.97		000	0.00
Heavy Trucks:	84.25	-18.58		-4.11		-1.20		-5.16	0.	000	0.00
Unmitigated Noise								_		1	
,,	Leq Peak Hou			eq Ever		Leq	Night		Ldn		NEL
Autos:	65		63.9		62.1		56		64.		65.
Medium Trucks:	59		58.0		51.6		50		58.		58.
Heavy Trucks:	60		58.9 65.9		49.9 62.7		51 58		59. 66.	-	59. 67.
	07	.0			02.7		30	.0	66.	U	67.
Vehicle Noise:	- 4- N-1 O-										
Centerline Distanc	e to Noise Co	ontour (in feet	)	70 dB	4	65	dBA	- (	60 dBA	55	dBA
	e to Noise Co	,	l dn:	70 dB	4		dBA	(	60 dBA 274		dBA

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	FH'	WA-RD-77-10	B HIGI	HWAY I	NOISE P	REDICTION	ON M	ODEL					
		ord/Bonita Cyl mboree	n		Project Name: NNCPC Job Number: 8211								
SITE S	PECIFIC IN	NPUT DATA				N	OISE	MODE	L INPUT	S			
Highway Data					Site Cor	nditions (	Hard	= 10, S	oft = 15)				
Average Daily T	raffic (Adt):	14.400 vehicle	es					Autos.	: 15				
Peak Hour F	. ,	10%			Me	edium Tru	cks (2	Axles).	15				
Peak Ho	our Volume:	1,440 vehicle	es		He	eavy Truc	ks (3+	Axles).	15				
Veh	icle Speed:	45 mph											
Near/Far Lan		52 feet		-	Vehicle				1 1				
					Ver	icleType		Day	Evening	Night	Daily		
Site Data							utos:	77.5%		9.6%			
	rier Height:	0.0 feet				edium Tru		84.89		10.3%			
Barrier Type (0-Wa		0.0				Heavy Tri	ucks:	86.5%	6 2.7%	10.8%	0.74%		
Centerline Dist		100.0 feet		ľ	Noise S	ource Ele	evatio	ns (in f	eet)				
Centerline Dist. to		100.0 feet		ľ		Autos	: 2	2.000					
Barrier Distance to	o Observer:	0.0 feet			Mediu	m Trucks		1.000					
Observer Height (A	,	5.0 feet			Hear	vy Trucks	. 8	3.006	Grade Ad	justment	0.0		
	d Elevation:	0.0 feet				•							
	d Elevation:	0.0 feet			Lane Eq	uivalent			feet)				
R	load Grade:	0.0%				Autos		6.607					
	Left View:	-90.0 degre	ees		Mediu	m Trucks		5.566					
	Right View:	90.0 degre	ees		Hea	vy Trucks	: 96	6.608					
FHWA Noise Mode													
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		m Atten		
Autos:	68.46			-4.3	-	-1.20		-4.87		000	0.000		
Medium Trucks:	79.45			-4.3	-	-1.20		-4.97		000	0.000		
Heavy Trucks:	84.25	-21.56	6	-4.3	9	-1.20		-5.16	0.0	000	0.000		
Unmitigated Noise	•												
,,	Leq Peak Ho		,	Leq E	vening	Leq N			Ldn		NEL		
Autos:		2.5	60.6		58.8		52		61.4		62.0		
Medium Trucks:		3.3	54.7		48.4		46		55.3		55.5		
Heavy Trucks:		7.1	55.7		46.6		47		56.		56.4		
Vehicle Noise:		1.3	62.6		59.4		54	.8	63.	3	63.8		
Centerline Distance	e to Noise C	ontour (in fee	t)	70	dBA	65 0	ID A		60 dBA		dBA		
			I dn:										
		,	Lan:		36 77 38 83			166			358 384		
		C	INEL:	3	88	83	3		178	3	884		

Tuesday, May 29, 2012

	FH\	WA-RD-77-108	HIGH	A YAWI	IOISE P	REDICT	ION MO	DEL			
Road Nam	io: Existing e: Eastbluff/F nt: East of Jar	ord/Bonita Cyn nboree				.,	t Name: lumber:		С		
SITE S	SPECIFIC IN	NPUT DATA				1	NOISE	MODE	L INPUT	S	
Highway Data					Site Cor	nditions	(Hard:	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	11,500 vehicle	S					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	our Volume:	1,150 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Vei	hicle Speed:	45 mph		-	Vehicle	Mix					
Near/Far Lai	ne Distance:	52 feet		F	Veh	icleType	е	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
Rai	rier Height:	0.0 feet			M	ledium T	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis		100.0 feet			Noise S	ource E	levatio	ns (in fe	eet)		
Centerline Dist.		100.0 feet				Auto	s: 2	.000			
Barrier Distance		0.0 feet			Mediu	m Truck	s: 4	.000			
Observer Height (.	,	5.0 feet			Hea	vy Truck	s: 8	.006	Grade Ad	justmeni	t: 0.0
	ad Elevation:	0.0 feet		-			4 Di-4-	/! /	r4)		
	ad Elevation:	0.0 feet			Lane Eq	uivaien Auto		.607	eet)		
,	Road Grade:	0.0%			11-4	m Truck		.566			
	Left View:	-90.0 degre				m Truck vy Truck		.608			
	Right View:	90.0 degre	es		пеа	vy Truck	.s. 90	.000			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fres		Barrier Att		rm Atten
Autos:	68.46			-4.3	-	-1.20		-4.87		000	0.000
Medium Trucks:	79.45			-4.3	-	-1.20		-4.97		000	0.000
Heavy Trucks:	84.25			-4.3		-1.20		-5.16	0.0	000	0.000
Unmitigated Noise			_				A.C. auto 4		1 -1		NEL
VehicleType Autos:	Leq Peak Hot		59.6	Leq E	vening 57.9		Night 51	0	Ldn 60.4		NEL 61.0
Medium Trucks:	-		53.8		47.4		45	-	54.3		54.6
Heavy Trucks:	56		54.7		45.7		46	-	55.3	-	55.4
Vehicle Noise:			61.6		58.5		53		62.3		62.8
Centerline Distance	ce to Noise C	ontour (in feet	:)								
•				70 d	dBA	65	dBA	6	i0 dBA	55	dBA
			Ldn:	3	1	(	66		143		308
		C	NEL:	3	3		71		153	:	330

	FHV	VA-RD-77-108	HIGHWA	Y NOISE P	REDICT	ION MOI	DEL	_		
Road Nan	io: Existing ne: Eastbluff/Fo	ord/Bonita Cyn	HIGHWA	- NOIOL F	Project	Name: I	NNCP	C		
SITE	SPECIFIC IN	IPUT DATA			١	IOISE N	/ODE	L INPUTS	S	
Highway Data				Site Cor	nditions	(Hard =	10, Sc	oft = 15)		
Peak Hour	Traffic (Adt): 3 Percentage: lour Volume:	37,600 vehicles 10% 3,760 vehicles				ucks (2 A cks (3+ A	,	15 15 15		
	hicle Speed:	45 mph		Vehicle	Mix					
Near/Far La	ne Distance:	52 feet		Veh	icleType		Day	Evening	Night	Daily
Site Data					ledium T		77.5% 84.8%		9.6%	
Barrier Type (0-V		0.0 feet 0.0			eaium i Heavy T		84.8% 86.5%		10.3%	
Centerline Di		100.0 feet		Noise S	ource E	levations	s (in fe	eet)		
Centerline Dist. Barrier Distance Observer Height	to Observer:	100.0 feet 0.0 feet 5.0 feet			Auto m Truck	s: 4.0	000	Crado Adi	i rotmo n	. 0.0
P	ad Elevation:	0.0 feet		Hea	vy Truck	s: 8.0	006	Grade Adj	usimeni	. 0.0
Ro	ad Elevation:	0.0 feet		Lane Eq	uivalen	t Distand	ce (in t	eet)		
	Road Grade:	0.0%			Auto	s: 96.6	607			
	Left View:	-90.0 degree	es	Mediu	m Truck	s: 96.	566			
	Right View:	90.0 degree	es	Hea	vy Truck	s: 96.6	808			
FHWA Noise Mod	el Calculation	s		1						
VehicleType	REMEL	Traffic Flow	Distanc	e Finite	Road	Fresn	iel .	Barrier Atte	en Be	rm Atten
Autos:	68.46	3.80		4.39	-1.20		-4.87	0.0	000	0.00
Medium Trucks:	79.45	-13.44		4.39	-1.20		-4.97	0.0	000	0.00
Heavy Trucks:	84.25	-17.39		4.39	-1.20		-5.16	0.0	000	0.00
Unmitigated Nois	e Levels (with	out Topo and	barrier at	tenuation)						
VehicleType	Leq Peak Hou	. , . ,		Evening		Night		Ldn	_	NEL
Autos:	66		64.8	63.0		56.9		65.6		66.
Medium Trucks:			58.9	52.6		51.0		59.5		59.
Heavy Trucks: Vehicle Noise:			59.8 66.8	50.8		52.1		60.4		60. 67.
				63.6	'	58.9	,	67.5	)	67.
Centerline Distan	ce to Noise Co	ontour (in feet,		70 dBA	65	dBA	-	iO dBA	56	dBA
			l dn:	68		46		315		379
			VEL:	73		<del>40</del> 57		338		728
		O,	_	-						-

	FH\	WA-RD-77-108	HIGH	WAY N	OISE PI	REDICT	ION MC	DEL				
		ord/Bonita Cyn nita Canyon					Name: lumber:		°C			
SITE S	SPECIFIC IN	IPUT DATA				١	NOISE	MODE	L INPU	TS		
Highway Data				5	Site Cor	ditions	(Hard :	= 10, S	oft = 15)			
	Traffic (Adt): Percentage: our Volume:	9,900 vehicle: 10% 990 vehicle:				dium Tr avy Tru		/	15			
	hicle Speed:	45 mph		1	/ehicle	Mix						
Near/Far Lar	ne Distance:	52 feet		F	Veh	icleType	,	Day	Evening	Ni	ght	Daily
Site Data Bar	rier Height:	0.0 feet			М	edium T	Autos: rucks:	77.5% 84.8%			9.6% 0.3%	97.42%
Barrier Type (0-W		0.0			1	Heavy T	rucks:	86.59	6 2.7%	5 10	0.8%	0.74%
Centerline Dis	t. to Barrier:	100.0 feet		,	Voise S	ourco E	lovation	ne (in t	innt)			
Centerline Dist.	to Observer:	100.0 feet		ľ	10/36 3	Auto		.000	eei)			
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck		.000				
Observer Height (	,	5.0 feet				vy Truck		.006	Grade A	djust	ment:	0.0
	d Elevation:	0.0 feet		١.						_		
	d Elevation:	0.0 feet			.ane Eq			_ •	feet)			
ŀ	Road Grade:	0.0%			14	Auto m Truck		.607				
	Left View: Right View:	-90.0 degree				n Truck vy Truck		.608				
FHWA Noise Mode	el Calculation	s										
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fres	nel	Barrier A	tten	Beri	n Atten
Autos:	68.46	-1.99		-4.39	)	-1.20		-4.87	0	.000		0.000
Medium Trucks:	79.45	-19.23		-4.39		-1.20		-4.97	_	.000		0.000
Heavy Trucks:	84.25	-23.19		-4.39	9	-1.20		-5.16	0	.000		0.000
Unmitigated Noise	Levels (with	out Topo and	barrie	r atten	uation)							
VehicleType	Leq Peak Hou	ır Leq Day	,	Leq Ev	ening	Leq	Night		Ldn		CI	IEL
Autos:	60		59.0		57.2		51.	_	59			60.4
Medium Trucks:	54		53.1		46.8		45.		53			53.9
Heavy Trucks:	55		54.0		45.0		46.		54			54.7
Vehicle Noise:	62	7	61.0		57.8		53.	1	61	.7		62.1
Centerline Distanc	e to Noise Co	ontour (in feet	)	70		0.5	10.4	_	00 /04			10.4
				70 a			dBA		60 dBA			dBA
			Ldn: VEL:	28	-		60 64		129 139		_	79 99
		CI	VEL:	30	,		94		139		2	99

Tuesday, May 29, 2012

FH	WA-RD-77-108 HIG	HWAY NO	DISE PREDICTIO	N MODEL		
Scenario: Existing			Project N	lame: NNCF	PC PC	
Road Name: San Joaqu	in Hills		Job Nui	nber: 8211		
Road Segment: West of Ja	ımboree					
SITE SPECIFIC II	NPUT DATA				EL INPUTS	
Highway Data		S	ite Conditions (F	lard = 10, S	oft = 15)	
Average Daily Traffic (Adt):	4,800 vehicles			Autos	: 15	
Peak Hour Percentage:	10%		Medium Truc	ks (2 Axles)	: 15	
Peak Hour Volume:	480 vehicles		Heavy Truck	s (3+ Axles)	: 15	
Vehicle Speed:	45 mph	V	ehicle Mix			
Near/Far Lane Distance:	76 feet	<u> </u>	VehicleType	Dav	Evening I	Night Daily
Site Data				itos: 77.5%		9.6% 97.42%
Barrier Height:	0.0 feet		Medium Tru	cks: 84.89	6 4.9%	10.3% 1.84%
Barrier Type (0-Wall, 1-Berm):	0.0		Heavy Tru	cks: 86.59	% 2.7%	10.8% 0.74%
Centerline Dist. to Barrier:	100.0 feet	M	oise Source Ele	vations (in	foot)	
Centerline Dist. to Observer:	100.0 feet	74	Autos:	2.000	ccij	
Barrier Distance to Observer:	0.0 feet		Medium Trucks:	4.000		
Observer Height (Above Pad):	5.0 feet		Heavy Trucks:	8.006	Grade Adju	stment: 0.0
Pad Elevation:	0.0 feet		ricavy rrucks.	0.000	Orado riajai	0.0
Road Elevation:	0.0 feet	Li	ane Equivalent L	Distance (in	feet)	
Road Grade:	0.0%		Autos:	92.547		
Left View:	-90.0 degrees		Medium Trucks:	92.504		
Right View:	90.0 degrees		Heavy Trucks:	92.547		
FHWA Noise Model Calculation	ıs					
VehicleType REMEL	Traffic Flow D	istance	Finite Road	Fresnel	Barrier Atter	n Berm Atten
Autos: 68.46	-5.14	-4.11	-1.20	-4.87	0.00	0.000
Medium Trucks: 79.45	-22.38	-4.11	-1.20	-4.97	0.00	0.000
Heavy Trucks: 84.25	-26.33	-4.11	-1.20	-5.16	0.00	0.000
Unmitigated Noise Levels (with						
VehicleType Leq Peak Ho		Leq Eve	,	-	Ldn	CNEL
	3.0 56.1		54.3	48.3	56.9	57.5
	1.8 50.3		43.9	42.3	50.8	51.0
	2.6 51.2		42.1	43.4	51.8	51.9
Vehicle Noise: 5	9.8 58.1		55.0	50.3	58.8	59.3
Centerline Distance to Noise C	ontour (in feet)	70.0			00 ID4	55 ID.
		70 dE		3A	60 dBA	55 dBA
	Ldn: CNFI:		39 42		83 89	180 193

	FH	WA-RD-77-108	HIGH	1 YAW	NOISE PR	EDICT	ION MO	DDEL			
	io: Existing e: San Joaqu nt: East of Jar						t Name: lumber:		C		
SITE S	SPECIFIC IN	NPUT DATA				١	NOISE	MODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	17,700 vehicle	8					Autos	15		
Peak Hour	Percentage:	10%			Med	dium Tr	ucks (2	Axles)	15		
Peak H	our Volume:	1,770 vehicle	3		Hea	avy Tru	cks (3+	Axles)	15		
Vei	hicle Speed:	45 mph		-	Vehicle I	Лix					
Near/Far Lai	ne Distance:	76 feet		F	Vehi	cleType	9	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	6 12.9%	9.69	6 97.42%
Rai	rier Height:	0.0 feet			Me	dium T	rucks:	84.89	4.9%	10.39	6 1.84%
Barrier Type (0-W		0.0			H	leavy T	rucks:	86.5%	6 2.7%	10.89	6 0.74%
Centerline Dis	st. to Barrier:	100.0 feet		F	Noise So	urco F	lovatio	ne (in t	inat)		
Centerline Dist.	to Observer:	100.0 feet		-	110/30 00	Auto		2.000	<i>cci)</i>		
Barrier Distance	to Observer:	0.0 feet			Mediun			1.000			
Observer Height (.	Above Pad):	5.0 feet				y Truck		3.006	Grade Ad	liustmei	nt: 0.0
	ad Elevation:	0.0 feet		L						,	
	ad Elevation:	0.0 feet		L	Lane Equ				feet)		
F	Road Grade:	0.0%				Auto		2.547			
	Left View:	-90.0 degree			Mediun			2.504			
	Right View:	90.0 degree	es		Heav	y Truck	s: 92	2.547			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite		Fres		Barrier At		erm Atten
Autos:	68.46			-4.1	•	-1.20		-4.87		000	0.000
Medium Trucks:	79.45			-4.1	•	-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-20.67		-4.1	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise											
	Leq Peak Ho		_	Leq E	vening	Leq	Night		Ldn		CNEL
Autos:	63		61.8		60.0		54		62.	-	63.2
Medium Trucks:			55.9		49.6		48		56.	-	56.7
Heavy Trucks:			56.9		47.8		49		57.		57.5
Vehicle Noise:			63.8		60.6		55	.9	64.	5	64.9
Centerline Distance	ce to Noise C	ontour (in feet	)							1	
			L		dBA		dBA		60 dBA	5	5 dBA
			Ldn:		3		92		199		429
		CI	VEL:	4	6	(	99		213		460

	FHV	VA-RD-77-108	HIGHWA	Y NOISE P	REDICTIO	N MODEL			
Road Nam	io: Existing e: San Joaqui					lame: NNCI	PC		
	SPECIFIC IN				NC	ISE MOD	EL INPUT:	S	
Highway Data				Site Cor		lard = 10, S			
Peak H	Percentage: our Volume:	10% 1,370 vehicles				Autos ks (2 Axles) s (3+ Axles)	): 15		
	hicle Speed:	45 mph		Vehicle	Mix				
Near/Far La	ne Distance:	76 feet		Veh	icleType	Day	Evening	Night	Daily
Site Data  Bai  Barrier Type (0-W	rier Height: 'all, 1-Berm):	0.0 feet 0.0			Au ledium Tru Heavy Tru		% 4.9%	9.6% 10.3% 10.8%	1.849
Centerline Dis	st. to Barrier:	100.0 feet		Noise S	ource Fle	vations (in	foot)		
Centerline Dist. Barrier Distance Observer Height (	to Observer:	100.0 feet 0.0 feet 5.0 feet		Mediu	Autos: m Trucks: vy Trucks:	2.000 4.000 8.006	Grade Ad	iustment	: 0.0
	ad Elevation:	0.0 feet		Lane Ed	uivalent [	Distance (in	feet)		
,	Road Grade: Left View: Right View:	0.0% -90.0 degree 90.0 degree			Autos: m Trucks: vy Trucks:	92.547 92.504 92.547	,		
FHWA Noise Mode									
VehicleType	REMEL	Traffic Flow	Distanc		Road	Fresnel	Barrier Att		m Atten
Autos: Medium Trucks: Heavy Trucks:	68.46 79.45 84.25	-0.58 -17.82 -21.78		4.11 4.11 4.11	-1.20 -1.20 -1.20	-4.87 -4.97 -5.16	0.0	000	0.00
Unmitigated Noise	Lavala (with	out Tone and	harriar at	tonuction)					
VehicleType	Leg Peak Hou			Evening	Leg N	iaht	l dn	C	NFI
Autos:	62		60.7	58.9		52.8	61.5		62.
Medium Trucks:	56	.3	54.8	48.4		46.9	55.4	ı	55.
Heavy Trucks:	57		55.7	46.7		48.0	56.3		56.
Vehicle Noise:	64	.4	62.7	59.5	i	54.8	63.4	1	63.
Centerline Distant	ce to Noise Co	ontour (in feet,							
				70 dBA	65 dE	BA	60 dBA		dBA
			Ldn:	36	78		168	3	861

Autos: 77.5%   12.9%   9.6%		FH\	WA-RD-77-108	HIGH	WAY NO	DISE P	REDICT	ION MC	DEL			
Autos: 15   Autos: 15	Road Nar	ne: San Joaqui								C		
Average Daily Traffic (Adf): 21,900 vehicles   Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15   Heavy Trucks (3+ Axles): 15	SITE	SPECIFIC IN	IPUT DATA				1	NOISE	MODE	L INPUT	S	
Peak Hour Percentage:	Highway Data				S	ite Cor	nditions	(Hard =	: 10, S	oft = 15)		
Vehicle Speed:   45 mph   Near/Far Lane Distance:   76 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   I.	,			s		Me	edium Ti					
Near/Far Lane Distance:   76 feet     Vehicle Type   Day   Evening   Night   E	Peak I	Hour Volume:	2,190 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Near/Far Lane   Distance:   76   feet   Near/Far Lane   Distance:   76   feet   Near/Far Lane   Distance:   77   feet   Near Far Lane   Near	Ve	ehicle Speed:	45 mph		V	ahicla	Miv					
Barrier Height:   0.0   feet	Near/Far La	ane Distance:	76 feet		ľ			е	Day	Evening	Night	Daily
Barrier Trype (0-Wall, 1-Berm): 0.0   Test	Site Data							Autos:	77.5%	12.9%	9.6%	97.429
Barrier Type (0-Wall, 1-9erm): 0.0   Centerline Dist. to Dasrier: 100.0   feet Centerline Dist. to Observer: 100.0   feet Barrier Distance to Observer: 0.00   feet Barrier Distance   feet Dist	Ra	arrier Heiaht	0.0 feet			M	edium 7	rucks:	84.8%	4.9%	10.3%	1.849
Centerline Dist. to Observer: 100.0   feet   Centerline Dist. to Observer: 100.0   feet   Centerline Distance to Observer: 100.0   feet   Centerline Distance to Noise Contour (in feet)   Centerline Distance to Noise Contour (in fee	Barrier Type (0-V	Vall, 1-Berm):	0.0				Heavy 7	rucks:	86.5%	2.7%	10.8%	0.749
Barrier Distance to Observer: 0.0 feet   Medium Trucks: 4,000   Heavy Trucks: 8,006   Grade Adjustment: 0   Heavy Trucks: 8,006   Grade Adjustment: 0   Heavy Trucks: 8,006   Grade Adjustment: 0   Heavy Trucks: 90.0 degrees   Right View: 90.0 degrees   Heavy Trucks: 92.504   Heavy Trucks: 92.504   Heavy Trucks: 92.547   Heavy Trucks: 93.548				Ν	loise S	ource E	levation	s (in f	eet)			
Observer Height (Above Pad):   5.0   feet Pad Elevation:   0.0   feet Road Grade:   0.0%							Auto	os: 2.	000			
Pad Elevation: 0.0 feet   Road Elevation: 0.0 feet   Road Elevation: 0.0 feet   Road Elevation: 0.0 feet   Road Grade: 0.0%   Left View: -90.0 degrees   Right View: 90.0 degrees   Road Grade: 0.0%   Heavy Trucks: 92.547   Road Grade: 0.0%   Road Grade: 0.0%   Heavy Trucks: 92.547   Road Grade: 0.0%   Road Grade: 0.0%   Heavy Trucks: 92.547   Road Grade: 0.0%   Heavy Trucks: 94.55   Heavy Trucks: 94.56   Heavy Trucks: 95.25   Heavy Trucks: 94.56   Heavy Trucks:						Mediu	m Truck	(s: 4.	000			
Road Elevation:		. ,				Hear	vy Truck	rs: 8	006	Grade Ad	justmen	t: 0.0
Road Grade:					L	ane Eo	uivalen	t Distan	ce (in	feet)		
Left View:	710				_					,		
FIRMA Noise Model Calculations   VehicleType   REMEL   Traffic Flow   Distance   Finite Road   Fresnel   Barrier Atten   Berm.				00		Mediu	m Truck	rs: 92	504			
VehicleType												
Medium Trucks: 79.45   -15.78   -4.11   -1.20   -4.67   0.000     Heavy Trucks: 84.25   -19.74   -4.11   -1.20   -4.97   0.000     Heavy Trucks: 84.25   -19.74   -4.11   -1.20   -5.16   0.000     Unmitigated Noise   Level's (without Topo and barrier attenuation)     Vehicle Type	FHWA Noise Mod	del Calculation	s									
Medium Trucks:         79.45         -15.78         -4.11         -1.20         -4.97         0.000           Heavy Trucks:         84.25         -19.74         -4.11         -1.20         -5.16         0.000           Unmitigated Noise Levels (without Topo and barrier attenuation)           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNE           Autos:         64.6         62.7         60.9         54.9         63.5           Medium Trucks:         58.4         56.8         50.5         48.9         57.4           Heavy Trucks:         59.2         57.8         48.7         50.0         58.3           Vehicle Noise:         66.4         64.7         61.5         56.9         65.4           Centerline Distance to Noise Contour (in feet)           Led Noise:         70 dBA         65 dBA         60 dBA         55 dB           Led Noise:         49         106         229         494	VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Heavy Trucks:         84.25         -19.74         -4.11         -1.20         -5.16         0.000           Unmitigated Noise Levels (without Topo and barrier attenuation)           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNE           Autos:         64.6         62.7         60.9         54.9         63.5           Medium Trucks:         58.4         56.8         50.5         48.9         57.4           Heavy Trucks:         59.2         57.8         48.7         50.0         58.3           Vehicle Noise:         66.4         64.7         61.5         56.9         65.4           Centerline Distance to Noise Contour (in feet)           Ldn:         49         106         229         494			1.45		-4.11		-1.20		-4.87	0.0	000	0.00
Unmitigated Noise   Levels (without Topo and barrier attenuation)   Vehicle Type   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNE	Medium Trucks.	79.45	-15.78		-4.11				-4.97	0.0	000	0.00
VehicleType   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNE    Autos: 64.6   62.7   60.9   54.9   63.5     Medium Trucks: 58.4   56.8   50.5   48.9   57.4     Heavy Trucks: 59.2   57.8   48.7   50.0   58.3     Vehicle Noise: 66.4   64.7   61.5   56.9   65.4     Centerline Distance to Noise Contour (in feet)   70 dBA   65 dBA   60 dBA   55 dB     Ldn: 49   106   229   494	Heavy Trucks.	84.25	-19.74		-4.11		-1.20		-5.16	0.0	000	0.00
Autos:         64.6         62.7         60.9         54.9         63.5           Medium Trucks:         58.4         58.8         50.5         48.9         57.4           Heavy Trucks:         59.2         57.8         48.7         50.0         58.3           Vehicle Noise:         66.4         64.7         61.5         56.9         65.4           Centerline Distance to Noise Contour (In feet)         70 dBA         65 dBA         60 dBA         55 dB           Ldn:         49         106         229         494				barrie								
Medium Trucks:         58.4         56.8         50.5         48.9         57.4           Heavy Trucks:         59.2         57.8         48.7         50.0         58.3           Vehicle Noise:         66.4         64.7         61.5         56.9         65.4           Centerline Distance to Noise Contour (in feet)           Ldn:         49         106         229         494					Leq Eve							
Heavy Trucks:   59.2   57.8   48.7   50.0   58.3     Vehicle Noise:   66.4   64.7   61.5   56.9   65.4									-		-	64.
Vehicle Noise:         66.4         64.7         61.5         56.9         65.4           Centerline Distance to Noise Contour (in feet)           70 dBA         65 dBA         60 dBA         55 dB           Ldn:         49         106         229         494									-			57.
Centerline Distance to Noise Contour (in feet)           70 dBA         65 dBA         60 dBA         55 dB           Ldn:         49         106         229         494	Heavy Trucks.	59	.2	57.8		48.7		50.	0	58.3	3	58.
70 dBA 65 dBA 60 dBA 55 dB Ldn: 49 106 229 494	Vehicle Noise.	: 66	i.4	64.7		61.5		56.	9	65.4	4	65.
Ldn: 49 106 229 494	Centerline Distan	ice to Noise Co	ontour (in feet	t)	70.		I	10.4			1	
				L					1 '			
CNEL: 53 114 246 530												
			C	NEL:	53		1	14		246		530

Tuesday, May 29, 2012

FI	HWA-RD-77-108 H	IIGHWAY	NOISE PI	REDICTIO	ON MC	DDEL			
Scenario: Existing	•			Project N	lame:	NNCF	C		
Road Name: San Joac	uin Hills			Job Nu	mber:	8211			
Road Segment: West of S	Santa Rosa								
SITE SPECIFIC	INPUT DATA						L INPUT	S	
Highway Data			Site Con	ditions (l	Hard :	= 10, S	oft = 15)		
Average Daily Traffic (Adt):	15,700 vehicles					Autos.	15		
Peak Hour Percentage:	10%		Me	dium Truc	cks (2	Axles).	15		
Peak Hour Volume:	1,570 vehicles		He	avy Truck	rs (3+	Axles).	15		
Vehicle Speed:	45 mph	t	Vehicle	Mix					
Near/Far Lane Distance:	76 feet			icleType		Day	Evening	Night	Daily
Site Data				Aı	ıtos:	77.5%	6 12.9%	9.6%	97.42%
Barrier Height:	0.0 feet		M	edium Tru	icks:	84.89	6 4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0		F	Heavy Tru	icks:	86.5%	6 2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet	ŀ	Noise Sc	ource Ele	vatio	ns (in f	eet)		
Centerline Dist. to Observer:	100.0 feet	t		Autos		.000	,		
Barrier Distance to Observer:	0.0 feet		Mediu	m Trucks:	_	.000			
Observer Height (Above Pad):	5.0 feet			vy Trucks:		.006	Grade Ad	liustment	0.0
Pad Elevation:	0.0 feet			•				,	
Road Elevation:	0.0 feet		Lane Eq	uivalent l		_ •	feet)		
Road Grade:	0.0%			Autos:		.547			
Left View:	oo.o dogrood	3		m Trucks:		.504			
Right View:	90.0 degrees	3	Heav	y Trucks:	92	.547			
FHWA Noise Model Calculation	ns								
VehicleType REMEL	Traffic Flow	Distance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos: 68.4	6 0.01	-4.1	1	-1.20		-4.87	0.0	000	0.00
Medium Trucks: 79.4	5 -17.23	-4.1	1	-1.20		-4.97	0.0	000	0.00
Heavy Trucks: 84.2	5 -21.19	-4.1	11	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise Levels (wi	thout Topo and b	arrier atte	nuation)						
VehicleType Leq Peak H			vening	Leq N	_		Ldn		VEL
		1.3	59.5		53.		62.1		62.
		5.4	49.0		47.	-	56.0	-	56.
,		6.3	47.3		48.	-	56.9	_	57.
Vehicle Noise:	35.0 63	3.2	60.1		55.	.4	64.0	0	64.4
Centerline Distance to Noise	Contour (in feet)								
			dBA	65 d			60 dBA		dBA
			40	85			184		96
	CNE	EL: 4	12	91			197	4	25

	FH	WA-RD-77-10	8 HIGI	HWAY	NOISE P	REDICTI	ON MO	DEL			
Road Nam	io: Existing ne: San Joaqu nt: East of Sa					Project Job N	Name: umber:		С		
SITE	SPECIFIC II	NPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	21,600 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%				edium Tru					
Peak H	lour Volume:	2,160 vehicle	es		He	eavy Truc	ks (3+ )	Axles):	15		
Ve	hicle Speed:	45 mph			Vehicle	Mix					
Near/Far La	ne Distance:	76 feet				icleType		Day	Evening	Night	Daily
Site Data						- /	Autos:	77.5%	12.9%	9.69	6 97.42%
Ra	rrier Heiaht:	0.0 feet			М	edium Tı	ucks:	84.8%	4.9%	10.39	6 1.84%
Barrier Type (0-W		0.0				Heavy Tr	ucks:	86.5%	2.7%	10.89	6 0.74%
Centerline Di	st. to Barrier:	100.0 feet			Noise S	ource El	ovation	e (in f	oof)		
Centerline Dist.	to Observer:	100.0 feet			140/36 0	Autos		000	501)		
Barrier Distance	to Observer:	0.0 feet			Madiu	m Trucks		000			
Observer Height (	(Above Pad):	5.0 feet				vy Trucks		006	Grade Ad	iustmer	at: 0.0
Pa	ad Elevation:	0.0 feet			11001	ry Trucke	s. O.	000	Orddo 71d,	uotmon	0.0
Roa	ad Elevation:	0.0 feet			Lane Eq				feet)		
	Road Grade:	0.0%				Autos	s: 92.	547			
	Left View:	-90.0 degre	ees		Mediu	m Trucks	s: 92.	504			
	Right View:	90.0 degre	ees		Hear	y Trucks	s: 92.	547			
FHWA Noise Mode	el Calculation	าร									
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fresi	nel	Barrier Att	en Be	erm Atten
Autos:	68.46	1.39	)	-4.	11	-1.20		-4.87	0.0	000	0.000
Medium Trucks:				-4.		-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-19.80	)	-4.	11	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (with	hout Topo and	l barri	er atte	nuation)						
VehicleType	Leq Peak Ho		,	Leq I	ening	,	Night		Ldn		CNEL
Autos:	-	4.5	62.6		60.9		54.	-	63.4		64.0
Medium Trucks:	-	8.3	56.8		50.4		48.9	-	57.3	-	57.6
Heavy Trucks:		9.1	57.7		48.7		49.9	-	58.3		58.4
Vehicle Noise:	6	6.4	64.6		61.5		56.	В	65.3	3	65.8
Centerline Distant	ce to Noise C	ontour (in fee	t)								
			L		dBA		dBA	(	60 dBA	_	5 dBA
			Ldn:		49		05		227		490
		C	NEL:		53	11	13		244		525

	FHW	VA-RD-77-108	HIGH	WAY N	OISE PI	REDICT	ON MO	DDEL			
Road Nam	io: Existing e: San Joaquir nt: East of Mac						Name: umber:	NNCP 8211	С		
SITE S	SPECIFIC IN	PUT DATA				N	IOISE	MODE	L INPUT	S	
Highway Data				5	Site Con	ditions	(Hard :	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 2	0,600 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ıcks (2	Axles):	15		
Peak H	our Volume:	2,060 vehicle	s		He	avy Tru	cks (3+	Axles):	15		
Vei	hicle Speed:	45 mph		1	/ehicle	Miv					
Near/Far Lai	ne Distance:	76 feet		F,		icleType		Dav	Evening	Night	Daily
Site Data					*011		Autos:	77.5%	Ü	9.6%	
Par	rier Height:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0			1	Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis		100.0 feet		_							
Centerline Dist.	to Observer:	100.0 feet			voise S	ource E			eet)		
Barrier Distance	to Observer:	0.0 feet				Auto m Truck		2.000			
Observer Height (.	Above Pad):	5.0 feet				m Truck vy Truck		1.000 3.006	Grade Ad	iuetmant	. 0.0
Pa	ad Elevation:	0.0 feet			пеац	ry Truck	s. o	5.006	Orado Au,	ustinoni.	0.0
Roa	ad Elevation:	0.0 feet		L	.ane Eq	uivalen	t Distar	nce (in i	feet)		
F	Road Grade:	0.0%				Auto		2.547			
	Left View:	-90.0 degree	es			m Truck		2.504			
	Right View:	90.0 degree	es		Heav	y Truck	s: 92	2.547			
FHWA Noise Mode	el Calculations	5									
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fres		Barrier Att		m Atten
Autos:	68.46	1.19		-4.11		-1.20		-4.87		000	0.000
Medium Trucks:	79.45	-16.05		-4.11		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-20.01		-4.11		-1.20		-5.16	0.0	000	0.000
Unmitigated Noise			_					-			
	Leq Peak Hou			Leq Ev			Night		Ldn		VEL
Autos: Medium Trucks:	64. 58.		62.4 56.6		60.7 50.2		54. 48.		63.2 57.1		63.8 57.4
Heavy Trucks:	58. 58.		57.5		48.5		48		57.		58.2
Vehicle Noise:	66.	-	64.4		61.3		56.		65.		65.6
Centerline Distanc	ce to Noise Co	ntour (in feet	)								
				70 d	IBA .	65	dBA	6	60 dBA	55	dBA
			Ldn:	47	7	1	02		220	4	74
			VFI:	51			10		236		09

	FHW	A-RD-77-108	HIGH	WAY N	OISE PI	REDICTIO	N MO	DEL			
	o: Existing e: San Joaquir	Hills				Project N					
Road Segmen	t: West of Mad	arthur									
SITE S	SPECIFIC IN	PUT DATA				NC	DISE I	MODE	L INPUT	S	
Highway Data					Site Con	ditions (l	Hard =	10, Sc	ft = 15)		
Average Daily 1	Fraffic (Adt): 2	1,200 vehicle	s					Autos:	15		
Peak Hour I	Percentage:	10%			Me	dium Truc	ks (2 .	4xles):	15		
Peak Ho	our Volume:	2,120 vehicle	s		He	avy Truck	s (3+.	4xles):	15		
Vel	nicle Speed:	45 mph		-	Vehicle I	Mix					
Near/Far Lar	e Distance:	76 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						AL	itos:	77.5%	12.9%	9.6%	97.42
Bar	rier Heiaht:	0.0 feet			M	edium Tru	cks:	84.8%	4.9%	10.3%	1.84
Barrier Type (0-Wa	all, 1-Berm):	0.0			ŀ	Heavy Tru	cks:	86.5%	2.7%	10.8%	0.74
Centerline Dis		100.0 feet		1	Voise S	ource Ele	vation	s (in fe	et)		
Centerline Dist. t		100.0 feet				Autos:	2.	000			
Barrier Distance t		0.0 feet 5.0 feet			Mediu	m Trucks:	4.	000			
Observer Height (A	d Flevation:	0.0 feet			Heav	y Trucks:	8.	006	Grade Ad	justment	: 0.0
	d Elevation:	0.0 feet		-	ane Fa	uivalent l	Distan	ce (in t	eet)		
	a Elevation. Road Grade:	0.0%		F	zano zq	Autos:		547	001)		
,	I eft View:	-90.0 degre	29		Mediu	m Trucks:		504			
	Right View:	90.0 degre			Heav	y Trucks:	92	547			
FHWA Noise Mode	l Calculations										
VehicleType	REMEL	Traffic Flow	Dist	tance		Road	Fresi		Barrier Att	_	m Atte
Autos:	68.46	1.31		-4.11		-1.20		-4.87		000	0.0
Medium Trucks:	79.45	-15.93		-4.11		-1.20		-4.97		000	0.0
Heavy Trucks:	84.25	-19.88		-4.11		-1.20		-5.16	0.0	000	0.0
Unmitigated Noise VehicleType	Levels (without Leg Peak Hout			Leg E		Leg N	iaht	1	Ldn		NEL
Autos:	64.:		62.6	Ley El	60.8	Ley IV	1911t 54.	7	63.4		64
Medium Trucks:	58.		56.7		50.3		48.		57.3		57
Heavy Trucks:	59.	1	57.6		48.6		49.	3	58.2	2	58
Vehicle Noise:	66.	3	64.6		61.4		56.	7	65.3	3	65
Centerline Distanc	e to Noise Co	ntour (in fee	t)					,		,	
			L	70 c		65 di		6	0 dBA		dBA
		_	Ldn:	4	-	104	-		224		183
		С	NEL:	5	2	112	_		241	5	19

Tuesday, May 29, 2012

FH	WA-RD-77-108 H	IIGHWAY	NOISE PI	REDICTIO	ON MC	DEL			
Scenario: Existing Road Name: San Cleme	ente			Project N Job Nu			С		
Road Segment: East of Sa	nta Barbara								
SITE SPECIFIC II	IPUT DATA			NO	DISE	MODE	L INPUT	S	
Highway Data			Site Cor	nditions (l	Hard :	= 10, S	oft = 15)		
Average Daily Traffic (Adt):	5,600 vehicles					Autos.	15		
Peak Hour Percentage:	10%		Me	dium Truc	cks (2	Axles).	15		
Peak Hour Volume:	560 vehicles		He	avy Truck	ks (3+	Axles).	15		
Vehicle Speed:	40 mph		Vehicle	Miv					
Near/Far Lane Distance:	36 feet			icleType		Dav	Evening	Night	Daily
Site Data			1011		itos:	77.5%	-	9.6%	,
	0.0 feet		М	edium Tru	icks:	84.89	4.9%	10.3%	
Barrier Height: Barrier Type (0-Wall, 1-Berm):	0.0 reet 0.0			Heavy Tru	icks:	86.5%	2.7%	10.8%	
Centerline Dist. to Barrier:	100.0 feet		Noisa S	ource Ele	vatio	ne (in f	oot)		
Centerline Dist. to Observer:	100.0 feet		140/30 0	Autos:		.000	cci)		
Barrier Distance to Observer:	0.0 feet		Modiu	m Trucks:	_	.000			
Observer Height (Above Pad):	5.0 feet			n Trucks. v Trucks:		.006	Grade Ad	liuetmani	. 0.0
Pad Elevation:	0.0 feet		пеан	ry Trucks.		.006	Orauc Au	justinoni	. 0.0
Road Elevation:	0.0 feet		Lane Eq	uivalent l	Distar	ice (in	feet)		
Road Grade:	0.0%			Autos:	98	.412			
Left View:	-90.0 degrees	3	Mediu	m Trucks:	98	.372			
Right View:	90.0 degrees	3	Heav	y Trucks:	98	.413			
FHWA Noise Model Calculation	s								
VehicleType REMEL	Traffic Flow	Distance	Finite	Road	Fres	nel	Barrier At	ten Bei	m Atten
Autos: 66.51	-3.96	-4.	51	-1.20		-4.87	0.	000	0.000
Medium Trucks: 77.72	-21.20	-4.	51	-1.20		-4.97	0.	000	0.000
Heavy Trucks: 82.99	-25.15	-4.	51	-1.20		-5.16	0.	000	0.000
Unmitigated Noise Levels (with	out Topo and b	arrier atte	nuation)						
VehicleType Leq Peak Ho	ur Leq Day	Leq E	vening	Leq N	light		Ldn	С	NEL
		4.9	53.2		47.	1	55.	7	56.3
		9.3	42.9		41.		49.	-	50.1
Heavy Trucks: 52	2.1 50	0.7	41.7		42.	9	51.	3	51.4
Vehicle Noise: 58	3.8 5	7.1	53.8		49.	3	57.	8	58.3
Centerline Distance to Noise C	ontour (in feet)								
			dBA	65 d			60 dBA		dBA
	Li CNF		15	33 36			72		54
			17				77		65

Tuesday, May 29, 2012

	FH\	WA-RD-77-108	HIGH	HWAY I	NOISE PI	REDICT	ION MC	DEL			
Road Nan	rio: Existing ne: San Cleme ent: West of Sa					Project Job N	Name: umber:		С		
SITE	SPECIFIC IN	IPUT DATA				Ν	IOISE	MODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard =	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	5,800 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tri	ıcks (2	Axles):	15		
Peak F	lour Volume:	580 vehicle	s		He	avy Truc	cks (3+	Axles):	15		
Ve	ehicle Speed:	40 mph		-	Vehicle	Miv					
Near/Far La	ne Distance:	36 feet		ŀ		icleType		Day	Evening	Night	Daily
Site Data						-	Autos:	77.5%	12.9%	9.6%	97.42%
Ra	rrier Heiaht:	0.0 feet			M	edium Ti	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0			1	Heavy Ti	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Di	ist. to Barrier:	100.0 feet		ŀ	Noise S	ource El	evatio	ıs (in fe	eet)		
Centerline Dist.		100.0 feet		ľ		Auto		.000	,		
Barrier Distance		0.0 feet			Mediu	m Truck	s: 4	.000			
Observer Height		5.0 feet			Heav	y Truck	s: 8	.006	Grade Ad	justment	0.0
-	ad Elevation:	0.0 feet		-							
	ad Elevation:	0.0 feet			Lane Eq				eet)		
	Road Grade:	0.0%				Auto		.412			
	Left View:	-90.0 degre				m Truck		.372			
	Right View:	90.0 degre	es		Heav	y Truck	s: 98	.413			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Bei	m Atten
Autos:	66.51	-3.81		-4.5	1	-1.20		-4.87	0.0	000	0.000
Medium Trucks:		-21.04		-4.5		-1.20		-4.97		000	0.000
Heavy Trucks:	82.99	-25.00		-4.5	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Nois			barri								
VehicleType	Leq Peak Hou	.,.,	_	Leq E	vening		Night		Ldn		NEL
Autos:			55.1		53.3		47.	-	55.9	-	56.5
Medium Trucks:			49.5		43.1		41.	-	50.0	-	50.2
Heavy Trucks: Vehicle Noise:			50.9 57.3		41.8 54.0		43.		51.4 58.0		51.6 58.4
Centerline Distan					34.0		49.	4	36.1	J	30.4
Cemerine Distan	ce to Noise Co	ontour (In teet	)	70	dBA	65	dBA	1 6	i0 dBA	55	dBA
			Ldn:	1	16	3	14		73	1	58
		C	NEL:	1	7	3	16		78	1	69

Tuesday,	May	29,	2012

	FHW	A-RD-77-108	HIGHW.	AY NOISE P	REDICTI	ON MO	DEL			
Road Nam	io: Existing e: Santa Barba nt: East of Jamb				Project Job No	Name: umber:		С		
SITE S	SPECIFIC INF	PUT DATA			N	OISE	MODE	L INPUT	S	
Highway Data				Site Co	nditions (	(Hard =	: 10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 12	2,100 vehicle	S				Autos:	15		
Peak Hour	Percentage:	10%		Me	edium Tru	icks (2	Axles):	15		
Peak H	our Volume:	1,210 vehicle	s	He	eavy Truc	ks (3+ )	Axles):	15		
Vei	hicle Speed:	40 mph		Vehicle	Miller					
Near/Far Lai	ne Distance:	36 feet			nicleType		Dav	Evening	Night	Daily
Site Data				Vei		utos:	77.5%	0		97.429
					n ledium Tr		84.8%		10.3%	
Barrier Type (0-W	rier Height:	0.0 feet 0.0			Heavy Tr		86.5%		10.8%	
Centerline Dis		100.0 feet			,					*** **
Centerline Dist		100.0 feet		Noise S	ource Ele		•	eet)		
Barrier Distance		0.0 feet			Autos		000			
Observer Height (		5.0 feet			ım Trucks		000			
	ad Elevation:	0.0 feet		Hea	vy Trucks	8: 8.	006	Grade Ad	justment	: 0.0
	ad Elevation:	0.0 feet		Lane Ed	quivalent	Distan	ce (in t	feet)		
ŀ	Road Grade:	0.0%			Autos	3: 98.	.412			
	Left View:	-90.0 degree	es	Mediu	ım Trucks	3: 98.	372			
	Right View:	90.0 degree	es	Hea	vy Trucks	3: 98	413			
FHWA Noise Mode	el Calculations									
VehicleType		Traffic Flow	Distar		Road	Fresi		Barrier Att		m Atten
Autos:	66.51	-0.61		-4.51	-1.20		-4.87		000	0.00
Medium Trucks:	77.72	-17.85		-4.51	-1.20		-4.97		000	0.00
Heavy Trucks:	82.99	-21.81		-4.51	-1.20		-5.16	0.0	000	0.00
Unmitigated Noise					1				T	
VehicleType	Leq Peak Hour			eq Evening	Leq I			Ldn		NEL
Autos:	60.2		58.3	56.5		50.		59.1		59.
Medium Trucks:	54.2		52.6	46.3		44.		53.2	-	53.
Heavy Trucks: Vehicle Noise:	55.5 62.2		54.1 60.5	45.0 57.2		46.3 52.0	_	54.6 61.2		54. 61.
Centerline Distance	e to Noise Co	ntour (in feet	)							
		( 1001)		70 dBA	65 (	dBA	6	i0 dBA		dBA
			Ldn:	26	5	6		120	2	258
		CI	VEL:	28	5	9		128	2	76

	FHV	WA-RD-77-108	HIGHW	AY NO	DISE PI	REDICT	ION MO	DEL			
Road Nam	o: Existing e: Santa Barb nt: West of Jar						Name: lumber:		С		
SITE S	SPECIFIC IN	IPUT DATA				١	NOISE I	MODE	L INPUT	S	
Highway Data				S	ite Cor	ditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	2,100 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2 )	4xles):	15		
Peak H	our Volume:	210 vehicle	s		He	avy Tru	cks (3+ )	Axles):	15		
Vei	hicle Speed:	40 mph		V	ehicle	Miv					
Near/Far Lar	ne Distance:	36 feet		-		icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.429
Bar	rier Height:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-W		0.0			1	Heavy T	rucks:	86.5%	2.7%	10.8%	0.74
Centerline Dis		100.0 feet		N	oise S	ource E	levation	s (in f	eet)		
Centerline Dist.		100.0 feet				Auto	s: 2.	000			
Barrier Distance		0.0 feet			Mediu	m Truck	s: 4.	000			
Observer Height (	,	5.0 feet			Heav	v Truck	s: 8.	006	Grade Ad	justment	0.0
	ad Elevation:	0.0 feet		-		·					
	ad Elevation:	0.0 feet		Li	ane Eq		t Distan		feet)		
F	Road Grade:	0.0%				Auto		412			
	Left View:	-90.0 degre				m Truck		372			
	Right View:	90.0 degre	es		Heav	y Truck	s: 98.	413			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dista		Finite	Road	Fresi		Barrier Att		rm Atter
Autos:	66.51	-8.22		-4.51		-1.20		-4.87		000	0.00
Medium Trucks:	77.72	-25.46		-4.51		-1.20		-4.97		000	0.00
Heavy Trucks:	82.99	-29.41		-4.51		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise VehicleType	Leq Peak Hou			eq Eve		Lea	Night	1	Ldn		NEL
Autos:	52		50.7	oq Lvc	48.9	Log	42.9	9	51.5		52
Medium Trucks:	46		45.0		38.7		37.	-	45.6	-	45
Heavy Trucks:	47		46.4		37.4		38.7		47.0	-	47
Vehicle Noise:	54	.6	52.9		49.6		45.0	)	53.6	ŝ	54
Centerline Distance	ce to Noise Co	ontour (in feet	)								
			L	70 dE	ВА	65	dBA		60 dBA	55	dBA
			I dn:	_			-		0.7		80
			Lan: NEL:	8			17		37		80

	FHWA	-RD-77-108	HIGHWA	Y NOISE P	REDICTION	ON M	DDEL			
Scenario: Existin	9				Project I	Name.	NNCF	C		
Road Name: Santa	Barbara	a .			Job Nu	ımber.	8211			
Road Segment: North	f San C	Clemente								
SITE SPECIFI	INPL	JT DATA						L INPUT	S	
Highway Data				Site Cor	nditions (	Hard	= 10, S	oft = 15)		
Average Daily Traffic (Ad	t): 12,0	000 vehicles					Autos	15		
Peak Hour Percentag	e:	10%		Me	edium Tru	cks (2	Axles)	15		
Peak Hour Volun	e: 1,	200 vehicles		He	eavy Truci	ks (3+	Axles)	15		
Vehicle Spee	d:	40 mph		Vehicle	Mix					
Near/Far Lane Distant	e:	36 feet			icleType		Day	Evening	Night	Daily
Site Data					A	utos:	77.5%	6 12.9%	9.6%	97.42%
Barrier Heig	nt:	0.0 feet		М	edium Tru	ıcks:	84.89	6 4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berr		0.0			Heavy Tru	ucks:	86.5%	6 2.7%	10.8%	0.74%
Centerline Dist. to Barri	er: 1	00.0 feet		Noise S	ource Ele	vatio	ns (in t	eet)		
Centerline Dist. to Observ	er: 1	00.0 feet		710,000	Autos		2.000	001)		
Barrier Distance to Observ	er:	0.0 feet		Modiu	m Trucks		1.000			
Observer Height (Above Pa	d):	5.0 feet			vy Trucks		3.006	Grade Ad	iustment	. 0 0
Pad Elevation	n:	0.0 feet		7700	ry Trucks.		.000			
Road Elevation	n:	0.0 feet		Lane Eq	uivalent	Dista	nce (in	feet)		
Road Grad	le:	0.0%			Autos		3.412			
Left Vie	w: -	90.0 degree	S		m Trucks		3.372			
Right Vie	w:	90.0 degree	S	Hear	vy Trucks	: 98	3.413			
FHWA Noise Model Calcula	tions									
VehicleType REME	. Ti	raffic Flow	Distanc	e Finite	Road	Fres	snel	Barrier Att	en Ber	m Atten
Autos: 6	3.51	-0.65		4.51	-1.20		-4.87	0.0	000	0.000
Medium Trucks: 7	7.72	-17.89		4.51	-1.20		-4.97	0.0	000	0.000
Heavy Trucks: 8	2.99	-21.84		4.51	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise Levels (	withou	t Topo and I	oarrier at	tenuation)						
VehicleType Leq Peak		Leq Day		g Evening	Leq N	_		Ldn		NEL
Autos:	60.1	-	8.3	56.5		50		59.		59.7
Medium Trucks:	54.1	-	2.6	46.2		44		53.	-	53.4
Heavy Trucks:	55.4		4.0	45.0		46		54.0		54.7
Vehicle Noise:	62.2	6	60.4	57.1		52	.6	61.	1	61.6
Centerline Distance to Nois	e Cont	our (in feet)								
				70 dBA	65 d			60 dBA		dBA
			.dn:	26	55			119		:56
	IFI:	27 59 127 275					75			

	FH	WA-RD-77-108	B HIGH	HWAY	NOISE P	REDICTI	ON MO	DEL			
Road Nam	io: Existing ne: Santa Bart nt: South of S					Project Job No	Name: umber:		С		
SITE	SPECIFIC II	NPUT DATA							L INPUT	S	
Highway Data					Site Cor	ditions	Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	7,300 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2 /	(xles	15		
Peak H	lour Volume:	730 vehicle	es		He	avy Truc	ks (3+ A	(xles	15		
Ve	hicle Speed:	40 mph			Vehicle	Miv					
Near/Far La	ne Distance:	36 feet				icleType		Dav	Evening	Night	Daily
Site Data							utos:	77.5%	-	9.69	,
Pa	rrier Heiaht:	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.39	% 1.84%
Barrier Type (0-W		0.0				Heavy Tr	ucks:	86.5%	2.7%	10.89	% 0.74%
Centerline Di	. ,	100.0 feet			M-1 0			- /! #	41		
Centerline Dist.	to Observer:	100.0 feet			Noise S			_	eet)		
Barrier Distance	to Observer:	0.0 feet			14-46	Autos		000			
Observer Height (	(Above Pad):	5.0 feet				m Trucks		000	0	E 4	-1. 0.0
	ad Elevation:	0.0 feet			Heal	y Trucks	: 8.	006	Grade Ad	justmei	nt: 0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalent	Distan	ce (in i	feet)		
1	Road Grade:	0.0%				Autos	: 98.	412			
	Left View:	-90.0 degre	es		Mediu	m Trucks	: 98.	372			
	Right View:	90.0 degre	ees		Hear	y Trucks	: 98.	413			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresr	iel	Barrier Att	en B	erm Atten
Autos:	66.51	-2.81		-4.	51	-1.20		-4.87	0.0	000	0.000
Medium Trucks:	77.72	-20.04	ļ	-4.	51	-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	82.99	-24.00	)	-4.	51	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	l barri	er atte	nuation)						
VehicleType	Leq Peak Ho	ur Leq Da	У	Leq E	vening	Leq I	Vight		Ldn		CNEL
Autos:	58	3.0	56.1		54.3		48.3	}	56.9	9	57.5
Medium Trucks:		2.0	50.5		44.1		42.5		51.0	-	51.2
Heavy Trucks:	53	3.3	51.9		42.8		44.1		52.4	4	52.6
Vehicle Noise:	60	0.0	58.3		55.0		50.4	ļ	59.0	0	59.4
Centerline Distant	ce to Noise C	ontour (in fee	t)								
·		-			dBA	65 0		6	60 dBA	5	5 dBA
			Ldn:		18	4	-		85		184
		C	NEL:		20	4:	2		91		197

	FHV	VA-RD-77-108	HIGHWAY	NOISE P	REDICTION	ON MO	DEL		_		
	o: Existing e: Santa Barb	ara		Project Name: NNCPC Job Number: 8211							
SITE S	SPECIFIC IN	IPUT DATA			N	DISE N	ЛОDE	L INPUT	S		
Highway Data				Site Co	nditions (	Hard =	10, Sc	oft = 15)			
	Traffic (Adt): Percentage: our Volume:	3,300 vehicles 10% 330 vehicles			edium Truci eavy Truci	cks (2 A	,				
Vel	hicle Speed:	40 mph		Vehicle	Mix						
Near/Far Lar	ne Distance:	36 feet			icleType		Day	Evening	Night	Daily	
Site Data  Bar  Barrier Type (0-W	rier Height:	0.0 feet 0.0			Ai ledium Tru Heavy Tru	ıcks:	77.5% 84.8% 86.5%	4.9%	9.69 10.39 10.89	6 1.849	
Centerline Dis	st. to Barrier:	100.0 feet		Noise S	ource Ele	vation	e (in fa	not)			
Centerline Dist. I Barrier Distance I Observer Height (	to Observer:	0.0 feet 5.0 feet 0.0 feet		Mediu	Autos. m Trucks. vy Trucks.	: 2.0	000	Grade Adj	iustmer	nt: 0.0	
	d Elevation:	0.0 feet		Lane Ed	uivalent	Distano	ce (in :	feet)			
	Road Grade: Left View: Right View:	0.0% -90.0 degree 90.0 degree		Mediu	Autos. m Trucks. vy Trucks.	98.	412 372				
FHWA Noise Mode	el Calculation	ç									
VehicleType	REMEL	Traffic Flow	Distance	e Finite	Road	Fresn	iel .	Barrier Att	en Be	erm Atten	
Autos:	66.51	-6.25	-4	.51	-1.20		-4.87	0.0	000	0.00	
Medium Trucks:	77.72	-23.49	-4	.51	-1.20		-4.97	0.0	000	0.00	
Heavy Trucks:	82.99	-27.45	-4	.51	-1.20		-5.16	0.0	000	0.00	
Unmitigated Noise	Levels (with	out Topo and	barrier att	enuation)							
VehicleType	Leq Peak Hou	ır Leq Day	Leq	Evening	Leq N	light		Ldn	(	CNEL	
Autos:	54	.5	52.6	50.9	1	44.8	}	53.4	1	54.	
Medium Trucks:	48	.5	47.0	40.6	i	39.1		47.6	3	47.	
Heavy Trucks:	49		48.4	39.4		40.6		49.0		49.	
Vehicle Noise:	56	.5	54.8	51.5	i	47.0	)	55.5	ō	56.	
Centerline Distance	e to Noise Co	ontour (in feet,							_		
				0 dBA	65 d		1 6	60 dBA	5	5 dBA	
			Ldn:	11	23	-		50		108	
		CI	VEL:	12	25	)		54		116	

	FHW	A-RD-77-108	HIĞHW	AY NO	DISE P	REDICT	ION MO	DDEL			
Road Name	<ul><li>b: Existing</li><li>e: Santa Barba</li><li>ht: West of Nev</li></ul>						: Name: lumber:		С		
SITE S	SPECIFIC IN	PUT DATA				١	NOISE	MODE	L INPUT	S	
Highway Data				S	ite Cor	nditions	(Hard :	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	6,300 vehicles	3					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	our Volume:	630 vehicles	3		He	avy Tru	cks (3+	Axles):	15		
Vel	nicle Speed:	40 mph		1/	ehicle	Miv					
Near/Far Lar	ne Distance:	36 feet				icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42
Rar	rier Height:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.84
Barrier Type (0-Wa	all, 1-Berm):	0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.74
Centerline Dis		100.0 feet		N	oise S	ource E	levatio	ns (in f	eet)		
Centerline Dist. t		100.0 feet				Auto	s: 2	.000			
Barrier Distance t		0.0 feet			Mediu	m Truck	s: 4	.000			
Observer Height (		5.0 feet			Hear	vy Truck	s: 8	.006	Grade Ad	justment	0.0
	d Elevation:	0.0 feet				•					
	d Elevation:	0.0 feet		L	ane Eq	uivalen		_ •	feet)		
F	Road Grade:	0.0%				Auto		.412			
	Left View:	-90.0 degree				m Truck		.372			
	Right View:	90.0 degree	es		Hear	vy Truck	s: 98	.413			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dista		Finite	Road	Fres		Barrier Att		rm Attei
Autos:	66.51	-3.45		-4.51		-1.20		-4.87		000	0.0
Medium Trucks:	77.72	-20.68		-4.51		-1.20		-4.97		000	0.0
Heavy Trucks:	82.99	-24.64		-4.51		-1.20		-5.16	0.0	000	0.0
Unmitigated Noise VehicleType	Levels (without Leg Peak Hout			eq Eve		Loa	Night	1	Ldn		NEL
Autos:	57.		55.5	LOY LVE	53.7		47.	6	56.		56
Medium Trucks:	51.		49.8		43.4		41.	-	50.4	-	50
Heavy Trucks:	52.		51.2		42.2		43.	-	51.8		51
Vehicle Noise:	59.		57.6		54.4		49.	•	58.		58
Centerline Distanc	e to Noise Co	ntour (in feet)	)								
				70 dE	BA	65	dBA	(	60 dBA	55	dBA
			Ldn:	17			36		77		167
			VEL:	18			38		83		179

Tuesday, May 29, 2012

FH	WA-RD-77-108 HIGI	HWAY N	OISE PF	REDICTION	ON M	ODEL			
Scenario: Existing				Project I	Vame	: NNCP	С		
Road Name: San Migue				Job Nu	mber	8211			
Road Segment: West of No	ewport CTR								
SITE SPECIFIC II	NPUT DATA						L INPUT	S	
Highway Data		5	Site Con	ditions (	Hard	= 10, S	oft = 15)		
Average Daily Traffic (Adt):	7,800 vehicles					Autos:	15		
Peak Hour Percentage:	10%		Me	dium Tru	cks (2	Axles):	15		
Peak Hour Volume:	780 vehicles		He	avy Truci	ks (3+	- Axles):	15		
Vehicle Speed:	45 mph	1	/ehicle l	Wix					
Near/Far Lane Distance:	52 feet			icleType		Day	Evening	Night	Daily
Site Data				A	utos:	77.5%	12.9%	9.6%	97.42%
Barrier Height:	0.0 feet		Me	edium Tru	ıcks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0		F	leavy Tru	ıcks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet		loise Sc	ource Ele	vatio	ns (in f	eet)		
Centerline Dist. to Observer:	100.0 feet	F	.0.00 00	Autos.		2.000	501)		
Barrier Distance to Observer:	0.0 feet		Modiuu	n Trucks		4.000			
Observer Height (Above Pad):	5.0 feet			y Trucks		3.006	Grade Ad	liustment	0.0
Pad Elevation:	0.0 feet		11001	y Trucks.		5.000		,	
Road Elevation:	0.0 feet	L	ane Eq	uivalent			feet)		
Road Grade:	0.0%			Autos		6.607			
Left View:	-90.0 degrees			n Trucks		6.566			
Right View:	90.0 degrees		Heav	y Trucks	: 9	6.608			
FHWA Noise Model Calculation	ıs								
VehicleType REMEL		stance		Road	Fre	snel	Barrier Att		m Atten
Autos: 68.46		-4.39		-1.20		-4.87		000	0.000
Medium Trucks: 79.45		-4.39		-1.20		-4.97		000	0.000
Heavy Trucks: 84.25	-24.22	-4.39	)	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise Levels (with								,	
VehicleType Leq Peak Ho		Leq Ev		Leq №			Ldn		VEL
	9.8 57.9		56.2		50		58.		59.
	3.6 52.1		45.7			.2	52.0		52.
,	1.4 53.0		44.0			.2	53.0		53.
	1.7 59.9		56.8		52	2.1	60.	б	61.1
Centerline Distance to Noise C	ontour (in feet)	70 d	DΛ	65 d	IDΛ	Т.	60 dBA	FE	dBA
	I dn:	70 0		50 a		(	110		38 38
	CNFI:	26		55			110	_	38 55
	CIVEL.	20	,	50	,		110	2	JJ

	FH	WA-RD-77-10	8 HIGH	HWAY	NOISE PI	REDICT	ION M	DDEL			
Road Nam	io: Existing le: San Migue nt: East of Ne						Name: lumber:	NNCP 8211	С		
SITE	SPECIFIC II	NPUT DATA				Ν	IOISE	MODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard:	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	12,700 vehicle	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tri	ucks (2	Axles):	15		
Peak H	lour Volume:	1,270 vehicle	es		He	avy Truc	cks (3+	Axles):	15		
Ve	hicle Speed:	45 mph			Vehicle	Mix					
Near/Far La	ne Distance:	52 feet			Veh	icleType	,	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	6 97.42%
Ra	rrier Height:	0.0 feet			M	edium Ti	rucks:	84.8%	4.9%	10.3%	6 1.84%
Barrier Type (0-W		0.0			ı	Heavy Ti	rucks:	86.5%	2.7%	10.8%	6 0.74%
Centerline Di	st. to Barrier:	100.0 feet			Noise S	ource El	levatio	ns (in fe	eet)		
Centerline Dist.	to Observer:	100.0 feet				Auto		2.000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck	s: 4	.000			
Observer Height (	,	5.0 feet			Heav	y Truck	s: 8	3.006	Grade Ad	justmen	t: 0.0
	ad Elevation:	0.0 feet									
	ad Elevation:	0.0 feet			Lane Eq				feet)		
	Road Grade:	0.0%				Auto		6.607			
	Left View:	-90.0 degre				m Truck		5.566			
	Right View:	90.0 degre	ees		Heav	y Truck	s: 9t	6.608			
FHWA Noise Mod		-									
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		rm Atten
Autos:	68.46			-4.3		-1.20		-4.87		000	0.000
Medium Trucks:	79.45			-4.3		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25			-4.3		-1.20		-5.16	0.0	000	0.000
Unmitigated Noise								_			
VehicleType .	Leq Peak Ho		-	Leq E	vening		Night		Ldn		CNEL
Autos:		2.0	60.1		58.3		52	-	60.9	-	61.5
Medium Trucks:		5.7	54.2		47.8		46		54.8	-	55.0
Heavy Trucks: Vehicle Noise:		3.8	55.1 62.0		46.1 58.9		47 54		55.1 62.1		55.8 63.2
Centerline Distant					30.9		54	.2	02.0	5	03.2
Centernine Distant	re in moise C	omour (iii fee	· ·	70	dBA	65	dBA	-	60 dBA	5	5 dBA
			Ldn:		33		71		153		329
			NEL:		35		76		164		353

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL  Scenario: Existing Project Name: NNCPC Road Name: San Miguel Job Number: 8211 Road Segment: East of Avacado		
Road Name: San Miguel Job Number: 8211		
Road Segment: East of Avacado		
SITE SPECIFIC INPUT DATA NOISE MODEL INF	PUTS	
Highway Data Site Conditions (Hard = 10, Soft = 1	5)	
Average Daily Traffic (Adt): 24,300 vehicles Autos: 15		
Peak Hour Percentage: 10% Medium Trucks (2 Axles): 15		
Peak Hour Volume: 2,430 vehicles Heavy Trucks (3+ Axles): 15		
Vehicle Speed: 45 mph		
Near/Far Lane Distance: 52 feet		inter Drift
	_	ght Daily 9.6% 97.429
Madium Tarahar 04.00/ 4		9.6% 97.427 0.3% 1.849
Barrier Height: 0.0 feet		0.3% 1.647 0.8% 0.749
Barrier Type (U-Wall, 1-Berril). 0.0	.770 1	J.0% U.747
Centerline Dist. to Barrier: 100.0 feet Noise Source Elevations (in feet)		
Centerline Dist. to Observer: 100.0 feet Autos: 2.000		
Barrier Distance to Observer: 0.0 feet Medium Trucks: 4.000		
	e Adjust	ment: 0.0
Pad Elevation: 0.0 feet		
Road Elevation: 0.0 feet Lane Equivalent Distance (in feet)		
Road Grade: 0.0% Autos: 96.607		
Left View: -90.0 degrees Medium Trucks: 96.566		
Right View: 90.0 degrees Heavy Trucks: 96.608		
FHWA Noise Model Calculations		
	er Atten	Berm Atten
Autos: 68.46 1.91 -4.39 -1.20 -4.87	0.000	0.00
Medium Trucks: 79.45 -15.33 -4.39 -1.20 -4.97	0.000	0.00
Heavy Trucks: 84.25 -19.29 -4.39 -1.20 -5.16	0.000	0.00
Unmitigated Noise Levels (without Topo and barrier attenuation)		
VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn		CNEL
Autos: 64.8 62.9 61.1 55.1	63.7	64.
Medium Trucks: 58.5 57.0 50.7 49.1	57.6	57.
Heavy Trucks: 59.4 57.9 48.9 50.2	58.5	58.
Vehicle Noise: 66.6 64.9 61.7 57.0	65.6	66.
Centerline Distance to Noise Contour (in feet)		
70 dBA 65 dBA 60 dBA	4	55 dBA
Ldn: 51 109 235		507
CNEL: 54 117 253		544

Autos: 77.5%   12.9%   3.6%   97.42		FHV	WA-RD-77-108	HIGH	WAY NO	DISE P	REDICT	ION MO	DEL			
Highway Data	Road Nan	ne: San Miguel								C		
Average Daily Traffic (Adt): 16,400 vehicles   Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15   Medium Trucks (2 Axles): 15	SITE	SPECIFIC IN	IPUT DATA				1	NOISE	MODE	L INPUT	S	
Peak Hour Percentage: Peak Hour Volume: 1,640 vehicles	Highway Data				S	ite Cor	nditions	(Hard =	= 10, S	oft = 15)		
Peak Hour Volume:	Average Daily	Traffic (Adt):	16,400 vehicle	s					Autos.	15		
Vehicle Speed:   45 mph   Near/Far Lane Distance:   52 feet     Vehicle flype   Day   Evening   Night   Daily   Daily   Night   Nig	Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles).	15		
Near/Far Lane Distance:   52 feet   Vehicle Type   Day   Evening   Night   Daily	Peak F	lour Volume:	1,640 vehicle	s		He	eavy Tru	cks (3+	Axles).	15		
Near/Far Lane Distance:   52 feet   VehicleType   Day   Evening   Night   Daily	Ve	ehicle Speed:	45 mph		V	ohiclo	Miv					
Barrier Height:   0.0   feet   Barrier Type (0-Wall, 1-Berm):   0.0   feet   Centerline Dist. to Barrier:   100.0   feet   Centerline Dist. to Observer:   100.0   feet   Centerline Dist. for Observer:   100.0   feet   Centerl	Near/Far La	ane Distance:	52 feet		-			9	Day	Evening	Night	Daily
Barrier Type (C-Wall, 1-Berm): 0.0   feet	Site Data							Autos:	77.5%	6 12.9%	9.6%	97.429
Barrier Type (0-Wall, 1-Berm): 0.0   Centerline Dist. to Diserver: 100.0   feet   Centerline Dist. to Observer: 100.0   feet   Barrier Distance to Observer: 0.0   feet   Cobserver Height (Above Pad): 5.0   feet   Road Elevation: 0.0   feet   Road	Ba	rrier Heiaht:	0.0 feet			M	ledium T	rucks:	84.8%	6 4.9%	10.3%	1.84%
Centerline Dist. to Observer: 100.0 feet   Autos: 2.000			0.0				Heavy T	rucks:	86.5%	6 2.7%	10.8%	0.749
Centerline Dist. to Observer:   100.0   feet     Autos:   2.000     Medium Trucks:   4.000     Centerline Distance   Medium Trucks:   4.000   Centerline Distance   Medium Trucks:   4.000   Centerline Distance   Medium Trucks:   4.000   Grade Adjustment:   0.0   feet   Centerline Distance   Medium Trucks:   4.000   Grade Adjustment:   0.0   Grade Adjust	Centerline Di	ist. to Barrier:	100.0 feet		N	oise S	ource E	levatio	ıs (in f	eet)		
Diserver Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road El			100.0 feet							,		
Pad Elevation:						Mediu	m Truck	s: 4	.000			
Road Givation: 0.0 feet   Road Grade: 0.0%   Autos: 96.607						Hear	v Truck	s: 8	.006	Grade Ad	ljustmen	t: 0.0
Road Grade:							,					
Left View: Right View: 90.0 degrees   Heavy Trucks: 96.566   Heavy Trucks: 96.608					L.	ane Eq				feet)		
FHWA Noise Mode  Calculations   VehicleType   REMEL   Traffic Flow   Distance   Finite Road   Fresnel   Barrier Atten   Bern Atten   Autos: 68.46   0.20   -4.39   -1.20   -4.87   0.000   0.												
FHWA Noise Model Calculations   VehicleType   REMEL   Traffic Flow   Distance   Finite Road   Fresnel   Barrier Atten   Berm Atten												
VehicleType		Right View:	90.0 degre	es		Hea	vy Truck	s: 96	.608			
Medium Trucks:   68.46   0.20   -4.39   -1.20   -4.87   0.000   0.00												
Medium Trucks:         79.45         -17.04         -4.39         -1.20         -4.97         0.000         0.00           Heavy Trucks:         84.25         -21.00         -4.39         -1.20         -5.16         0.000         0.00           Unmitigated Noise Levels (without Tropo and barrier attenuation)           VehicleType         Leq Peak How         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         63.1         61.2         59.4         53.3         62.0         62           Medium Trucks:         56.8         55.3         48.9         47.4         55.9         56           Heavy Trucks:         57.7         56.2         47.2         48.5         56.8         56           Vehicle Noise:         64.9         63.2         60.0         55.3         63.9         64           Centerline Distance to Noise Contour (in feet)           Lada:         39         84         181         390						Finite		Fres				
Heavy Trucks:         84.25         -21.00         -4.39         -1.20         -5.16         0.000         0.00           Unmitigated Noise Levels (without Topo and barrier attenuation)           VehicleType         Leq Peak Howr         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         63.1         61.2         59.4         53.3         62.0         66.2           Medium Trucks:         56.8         55.3         48.9         47.4         55.9         56           Heavy Trucks:         57.7         56.2         47.2         48.5         56.8         56           Vehicle Noise:         64.9         63.2         60.0         55.3         63.9         64           Centerline Distance to Noise Contour (in feet)           Ldn:         39         84         181         39												
Vehicle Type												
VehicleType   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNEL							-1.20		-5.16	0.0	000	0.00
Autos:         63.1         61.2         59.4         53.3         62.0         62           Medium Trucks:         56.8         55.3         48.9         47.4         55.9         56.8           Heavy Trucks:         57.7         56.2         47.2         48.5         56.8         56           Vehicle Noise:         64.9         63.2         60.0         55.3         63.9         64           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         39         84         181         390							100	Nicelat	_	l do		MEI
Medium Trucks:         56.8         55.3         48.9         47.4         55.9         56           Heavy Trucks:         57.7         56.2         47.2         48.5         56.8         56           Vehicle Noise:         64.9         63.2         60.0         55.3         63.9         64           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         39         84         181         390					Leq Eve				2			
Heavy Trucks:									-		-	56.
Vehicle Noise:         64.9         63.2         60.0         55.3         63.9         64           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         39         84         181         390											-	56.
70 dBA 65 dBA 60 dBA 55 dBA Ldn: 39 84 181 390												64.
70 dBA 65 dBA 60 dBA 55 dBA Ldn: 39 84 181 390	Centerline Distan	ce to Noise Co	ontour (in fee	t)								
			, ,		70 dl	BA	65	dBA		60 dBA	55	i dBA
CNEL: 42 90 194 419												
			С	NEL:	42		!	90		194		419

Tuesday, May 29, 2012

	FHW	/A-RD-77-108	HIGHWA'	/ NOISE PI	REDICTION	ON MC	DEL					
Scenario: Exist	ing			Project Name: NNCPC								
Road Name: San I	Miguel				Job Nu	mber:	8211					
Road Segment: West	of Mad	carthur										
SITE SPECIF	IC IN	PUT DATA						L INPUT	S			
Highway Data				Site Con	ditions (	Hard :	= 10, S	oft = 15)				
Average Daily Traffic (A	Adt): 2:	2,100 vehicles					Autos.	15				
Peak Hour Percent	age:	10%		Me	dium Tru	cks (2	Axles).	15				
Peak Hour Volu	me:	2,210 vehicles	;	He	avy Truci	rs (3+	Axles).	15				
Vehicle Spe	eed:	45 mph		Vehicle	Mix							
Near/Far Lane Dista	nce:	52 feet			icleType		Day	Evening	Night	Daily		
Site Data					A	ıtos:	77.5%	12.9%	9.6%	97.42%		
Barrier Hei	aht:	0.0 feet		M	edium Tru	icks:	84.89	4.9%	10.3%	1.84%		
Barrier Type (0-Wall, 1-Be		0.0		1	Heavy Tru	icks:	86.5%	2.7%	10.8%	0.74%		
Centerline Dist. to Bar	rier:	100.0 feet		Noise So	ource Ele	vatio	ns (in f	eet)				
Centerline Dist. to Obser	ver:	100.0 feet		110,00 01	Autos		.000	001)				
Barrier Distance to Obser	ver:	0.0 feet		Mediu	m Trucks	_	.000					
Observer Height (Above F	ad):	5.0 feet			y Trucks		.006	Grade Ad	iustment	0.0		
Pad Eleva	tion:	0.0 feet		11001	y mucho.		.000					
Road Eleva	tion:	0.0 feet		Lane Eq	uivalent			feet)				
Road Gr	ade:	0.0%			Autos		.607					
Left V		-90.0 degree	s		m Trucks		.566					
Right V	iew:	90.0 degree	s	Heav	y Trucks	96	.608					
FHWA Noise Model Calcu	lations	}										
VehicleType REM	EL	Traffic Flow	Distanc	e Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten		
Autos:	68.46	1.49	-4	1.39	-1.20		-4.87	0.0	000	0.000		
Medium Trucks:	79.45	-15.75	-4	1.39	-1.20		-4.97	0.0	000	0.000		
Heavy Trucks:	84.25	-19.70	-4	1.39	-1.20		-5.16	0.0	000	0.000		
Unmitigated Noise Levels	(witho	out Topo and I	barrier att	enuation)								
VehicleType Leq Pea				Evening	Leq N	_		Ldn		NEL		
Autos:	64.4		32.5	60.7		54.	-	63.3	-	63.9		
Medium Trucks:	58.		6.6	50.2		48.		57.2	-	57.4		
Heavy Trucks:	59.0		57.5	48.5		49.		58.		58.2		
Vehicle Noise:	66.2	2 6	64.5	61.3		56.	6	65.2	2	65.6		
Centerline Distance to No	ise Co	ntour (in feet)										
				0 dBA	65 d			60 dBA		dBA		
			_dn: IFI :	48 51	10 11			221		76 11		

	FH	WA-RD-77-108	HIGH	WAY I	NOISE P	REDICT	ION MO	DEL					
Road Nam	io: Existing ne: San Migue nt: East of Ma						t Name: lumber:		С				
SITE	SPECIFIC IN	NPUT DATA				١	NOISE N	ИODE	L INPUT	S			
Highway Data					Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt):	11,800 vehicle	S					Autos:	15				
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2 )	Axles):	15				
Peak H	lour Volume:	1,180 vehicle	s		He	avy Tru	cks (3+ )	Axles):	15				
Ve	hicle Speed:	45 mph		-	Vehicle	Miv							
Near/Far La	ne Distance:	52 feet		ŀ		icleType	9	Day	Evening	Night	Daily		
Site Data							Autos:	77.5%		9.69			
Pa	rrier Heiaht:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.39	% 1.84%		
Barrier Type (0-W		0.0				Heavy T	rucks:	86.5%	2.7%	10.89	% 0.74%		
Centerline Di	st. to Barrier:	100.0 feet		-	Noise S	ource F	levation	e (in fi	oof)				
Centerline Dist.	to Observer:	100.0 feet		F	140/36 0	Auto		000	501)				
Barrier Distance	to Observer:	0.0 feet			Madiu	m Truck		000					
Observer Height (	(Above Pad):	5.0 feet				vy Truck		000	Grade Ad	iustmei	nt: 0.0		
P	ad Elevation:	0.0 feet				•				uoumon	и. о.о		
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)				
	Road Grade:	0.0%				Auto		607					
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 96.	566					
	Right View:	90.0 degre	es		Hear	y Truck	s: 96.	608					
FHWA Noise Mod	el Calculation	IS											
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresi	nel	Barrier Att	en B	erm Atten		
Autos:	68.46			-4.3		-1.20		-4.87	0.0	000	0.000		
Medium Trucks:	79.45	-18.47		-4.3	39	-1.20		-4.97	0.0	000	0.000		
Heavy Trucks:	84.25	-22.43		-4.3	39	-1.20		-5.16	0.0	000	0.000		
Unmitigated Nois	e Levels (with	out Topo and	barrie	r atte	nuation)								
VehicleType	Leq Peak Ho			Leq E	vening		Night		Ldn		CNEL		
Autos:	61		59.7		58.0		51.9		60.5	-	61.1		
Medium Trucks:			53.9		47.5		46.0		54.4		54.7		
Heavy Trucks:		5.2	54.8		45.8		47.0		55.4		55.5		
Vehicle Noise:			61.7		58.6		53.9	9	62.4	1	62.9		
Centerline Distan	ce to Noise C	ontour (in feet	)					_		_			
			L		dBA		dBA	(	60 dBA	5	5 dBA		
		_	Ldn:		31		68		145		313		
		C	NEL:	3	34	7	72		156		336		

	FH	WA-RD-77-	108 HIG	HWAY	NOISE P	REDICTI	ON M	DDEL	-			
Road Nam	io: Existing ne: Coast High nt: East of Jar					Project Job N	Name. umber.		С			
SITE	SPECIFIC IN	NPUT DAT	Α						L INPUT	S		
Highway Data					Site Conditions (Hard = 10, Soft = 15)							
Peak H	Percentage: lour Volume:	10% 4,700 veh	cles			edium Tru eavy Truc		,	15			
	hicle Speed:	45 mph			Vehicle	Mix						
Near/Far La	ne Distance:	76 feet			Veh	icleType		Day	Evening	Night	Daily	
Site Data						A	lutos:	77.5%	12.9%	9.6%	97.42%	
Ba	rrier Heiaht:	0.0 fee	t		М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%	
Barrier Type (0-W	/all, 1-Berm):	0.0				Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%	
Centerline Dis	st. to Barrier:	100.0 fee	ŧ		Noise S	ource El	evatio	ns (in f	eet)			
Centerline Dist.	to Observer:	100.0 fee	ŧt		710700	Auto:		2.000	001)			
Barrier Distance	to Observer:	0.0 fee	ŧ		Modiu	m Trucks		1.000				
Observer Height (	(Above Pad):	5.0 fee	ŧ			vy Trucks		3.006	Grade Ad	iustmeni	. 00	
Pa	ad Elevation:	0.0 fee	ŧt			•				dolinon	. 0.0	
Roa	ad Elevation:	0.0 fee	ŧ		Lane Eq				feet)			
1	Road Grade:	0.0%				Autos		2.547				
	Left View:	-90.0 de	grees			m Trucks		2.504				
	Right View:	90.0 de	grees		Hear	y Trucks	s: 92	2.547				
FHWA Noise Mod	el Calculation	ıs										
VehicleType	REMEL	Traffic Flo	w Di	istance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten	
Autos:	68.46	4.	77	-4.	11	-1.20		-4.87	0.0	000	0.000	
Medium Trucks:	79.45	-12	47	-4.	11	-1.20		-4.97	0.0	000	0.000	
Heavy Trucks:	84.25	-16	42	-4.	11	-1.20		-5.16	0.0	000	0.000	
Unmitigated Noise	e Levels (with	out Topo a	nd barr	ier atte	nuation)							
VehicleType	Leq Peak Ho	ur Leq	Day	Leq I	Evening	Leq	Night		Ldn	С	NEL	
Autos:	67	7.9	66.0		64.3		58	.2	66.8	3	67.4	
Medium Trucks:	61	1.7	60.2		53.8		52	.3	60.7	,	60.9	
Heavy Trucks:	62	2.5	61.1		52.1		53	.3	61.7	7	61.8	
Vehicle Noise:	69	9.8	68.0		64.9		60	.2	68.7	7	69.2	
Centerline Distant	ce to Noise C	ontour (in f	eet)									
					dBA		dBA	(	60 dBA		dBA	
			Ldn:		82		77		382		322	
			CNEL:		88	19	90		409	8	382	

	FNW	A-RD-77-108	HIGH	NAY NO	JISE PI	REDICT	ION MC	DDEL			
	o: Existing						Name:		С		
	e: Coast Highv					Job ∧	lumber:	8211			
Road Segmer	nt: West of Jan	iboree									
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data				S	ite Cor	nditions	(Hard =	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 6	0,000 vehicles	3					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	our Volume:	6,000 vehicles	3		He	eavy Tru	cks (3+	Axles):	15		
Vei	hicle Speed:	45 mph		V	ehicle	Mix					
Near/Far Lar	ne Distance:	76 feet			Veh	icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42
Rar	rier Height:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.84
Barrier Type (0-W		0.0			1	Heavy T	rucks:	86.5%	2.7%	10.8%	0.74
Centerline Dis	t. to Barrier:	100.0 feet		N	oise S	ource E	levation	ns (in f	eet)		
Centerline Dist.	to Observer:	100.0 feet				Auto		.000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck		.000			
Observer Height (	Above Pad):	5.0 feet				vy Truck		.006	Grade Ad	iustment	0.0
Pa	d Elevation:	0.0 feet				•					
Roa	d Elevation:	0.0 feet		L	ane Eq	uivalen	t Distar	ice (in	feet)		
F	Road Grade:	0.0%				Auto		.547			
	Left View:	-90.0 degree	es			m Truck		.504			
	Right View:	90.0 degree	es		Heav	vy Truck	s: 92	.547			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fres		Barrier Att		m Atte
Autos:	68.46	5.83		-4.11		-1.20		-4.87		000	0.0
Medium Trucks:	79.45	-11.41		-4.11		-1.20		-4.97		000	0.0
Heavy Trucks:	84.25	-15.36		-4.11		-1.20		-5.16	0.0	000	0.0
Unmitigated Noise VehicleType	Leg Peak Hou			r <b>attenu</b> Leg Eve		100	Night	_	Ldn		NEL
Autos:	69.		67.1	Ley Eve	65.3		rvigrit 59.	2	67.9		68
Medium Trucks:	62.		61.2		54.9		53.	-	61.8	-	62
Heavy Trucks:	63.		62.2		53.1		54.		62.7		62
Vehicle Noise:	70.	•	69.1		65.9		61.	•	69.8		70
Centerline Distanc	e to Noise Co.	ntour (in feet	)								
				70 dE			dBA	(	60 dBA		dBA
			Ldn:	97		2	08		449	9	967
			VEL:	104			24		482		038

Tuesday, May 29, 2012

FH	WA-RD-77-108 HIG	HWAY NO	ISE PREDICTION	ON MODEL						
Scenario: Existing			Project Name: NNCPC							
Road Name: Coast High	.,		Job Nu	mber: 8211						
Road Segment: West of No	ewport CTR									
SITE SPECIFIC II	NPUT DATA				EL INPUTS	5				
Highway Data		Si	te Conditions (	Hard = 10, S	oft = 15)					
Average Daily Traffic (Adt):	43,600 vehicles			Autos	: 15					
Peak Hour Percentage:	10%		Medium Tru	cks (2 Axles)	: 15					
Peak Hour Volume:	4,360 vehicles		Heavy Truc	ks (3+ Axles)	: 15					
Vehicle Speed:	45 mph	Ve	ehicle Mix							
Near/Far Lane Distance:	76 feet	-	VehicleType	Dav	Evening	Night Daily				
Site Data				utos: 77.5°	-	9.6% 97.42%				
Domina Helekt	0.0 feet		Medium Tri	icks: 84.89	% 4.9%	10.3% 1.84%				
Barrier Height: Barrier Type (0-Wall, 1-Berm):	0.0 reet 0.0		Heavy Tru	ıcks: 86.59	% 2.7%	10.8% 0.74%				
Centerline Dist. to Barrier:	100.0 feet									
Centerline Dist. to Observer:	100.0 feet	No	oise Source Ele		feet)					
Barrier Distance to Observer:	0.0 feet		Autos							
Observer Height (Above Pad):	5.0 feet		Medium Trucks							
Pad Flevation:	0.0 feet		Heavy Trucks	8.006	Grade Adju	ustment: 0.0				
Road Flevation:	0.0 feet	La	ne Equivalent	Distance (in	feet)					
Road Grade:	0.0%		Autos	92.547	,					
Left View:	-90.0 degrees		Medium Trucks	92.504						
Right View:	90.0 degrees		Heavy Trucks	92.547						
FHWA Noise Model Calculation										
VehicleType REMEL		istance	Finite Road	Fresnel	Barrier Atte	n Berm Atten				
Autos: 68.46		-4.11	-1.20	-4.87						
Medium Trucks: 79.45		-4.11	-1.20	-4.97						
Heavy Trucks: 84.25		-4.11	-1.20	-5.16						
Unmitigated Noise Levels (with	out Topo and harr	ior attonus	etion)							
VehicleType Leq Peak Ho	-	Leq Eve		light	Ldn	CNEL				
Autos: 67	7.6 65.7		63.9	57.9	66.5	67.1				
Medium Trucks: 6	1.3 59.8		53.5	51.9	60.4	60.6				
Heavy Trucks: 62	2.2 60.8		51.7	53.0	61.3	61.5				
Vehicle Noise: 69	9.4 67.7		64.5	59.9	68.4	68.9				
Centerline Distance to Noise C	ontour (in feet)									
		70 dB	8A 65 a	BA	60 dBA	55 dBA				
	Ldn: CNFI:		16 18	-	363 389	782 839				

FHW	A-RD-77-108 H	GHWAY	NOISE P	REDICTI	ON MO	DEL			
Scenario: Existing Road Name: Coast Highwa Road Segment: East of Newp					Name: umber:		С		
SITE SPECIFIC INP	UT DATA			N	IOISE I	MODE	L INPUT	S	
Highway Data			Site Cor	nditions	(Hard =	: 10, Sc	oft = 15)		
Average Daily Traffic (Adt): 35	,700 vehicles					Autos:	15		
Peak Hour Percentage:	10%		Me	edium Tru	icks (2	Axles):	15		
Peak Hour Volume: 3	,570 vehicles		He	avy Truc	cks (3+ )	Axles):	15		
Vehicle Speed:	45 mph		Vehicle	Mix					
Near/Far Lane Distance:	76 feet			icleType		Day	Evening	Night	Daily
Site Data				A	Autos:	77.5%	12.9%	9.6%	97.42%
Barrier Height:	0.0 feet		М	edium Tı	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0		1	Heavy Ti	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet		Noise S	ource El	evation	s (in fe	eet)		
Centerline Dist. to Observer:	100.0 feet			Autos		000	,		
Barrier Distance to Observer:	0.0 feet		Mediu	m Trucks		000			
Observer Height (Above Pad):	5.0 feet		Hear	vy Trucks	s: 8.	006	Grade Ad	iustmen	: 0.0
Pad Elevation:	0.0 feet								
Road Elevation:	0.0 feet		Lane Eq				feet)		
Road Grade:	0.0%			Autos		.547			
	-90.0 degrees			m Trucks		504			
Right View:	90.0 degrees		Hear	y Trucks	s: 92.	547			
FHWA Noise Model Calculations									
VehicleType REMEL		Distance	Finite	Road	Fresi	nel	Barrier Att	en Be	rm Atten
Autos: 68.46	3.58	-4.	.11	-1.20		-4.87	0.0	000	0.000
Medium Trucks: 79.45	-13.66		.11	-1.20		-4.97		000	0.000
Heavy Trucks: 84.25	-17.62	-4.	.11	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise Levels (withou		_						,	
VehicleType Leq Peak Hour	Leq Day		Evening	,	Night		Ldn		NEL
Autos: 66.7			63.1		57.0	-	65.6		66.2
Medium Trucks: 60.5			52.6		51.		59.5		59.8
Heavy Trucks: 61.3 Vehicle Noise: 68.6			50.9 63.7		52.°		60.5 67.5		60.6
Centerline Distance to Noise Con		.0	03.7		33.1		07.	,	00.0
Centennie Distance to NOISE CON	tour (III leet)	70	) dBA	65	dBA	6	i0 dBA	55	dBA
	La	n:	68	14	47	1	318	1	684
	CNE	L:	73	15	58		341		734

	FHW	/A-RD-77-108	HIGH	WAY N	OISE P	REDICT	ION M	DDEL			
	o: Existing					Project	Name:		C		
	e: Coast Highwart: East of Ava					JOD IN	iumber:	8211			
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt): 3	6,300 vehicle	s					Autos	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles)	15		
Peak H	our Volume:	3,630 vehicle	S		He	eavy Tru	cks (3+	Axles)	15		
Vei	hicle Speed:	45 mph		-	/ehicle	Mix					
Near/Far Lai	ne Distance:	76 feet		F		ісlеТуре	,	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	6 12.9%	9.6%	97.42%
Bar	rier Height:	0.0 feet			М	edium T	rucks:	84.89	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0				Heavy T	rucks:	86.5%	6 2.7%	10.8%	0.74%
Centerline Dis	st. to Barrier:	100.0 feet		,	Voise S	ource E	levatio	ns (in t	pet)		
Centerline Dist.	to Observer:	100.0 feet		F.	10,00	Auto		2.000	001)		
Barrier Distance	to Observer:	0.0 feet			Madiu	m Truck		.000			
Observer Height (	Above Pad):	5.0 feet				vy Truck		3.006	Grade Ad	iustmen	t: 0.0
Pa	ad Elevation:	0.0 feet				•					
Roa	ad Elevation:	0.0 feet		I	ane Eq	uivalen			feet)		
F	Road Grade:	0.0%				Auto		2.547			
	Left View:	-90.0 degree	es			m Truck		2.504			
	Right View:	90.0 degree	es		Hear	y Truck	s: 92	2.547			
FHWA Noise Mode	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fres		Barrier Att		rm Atten
Autos:	68.46	3.65		-4.11		-1.20		-4.87		000	0.00
Medium Trucks:	79.45	-13.59		-4.11		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-17.55		-4.11	I	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	•										
	Leq Peak Hou			Leq Ev			Night	1	Ldn	_	NEL
Autos:	66.		64.9		63.1		57		65.7		66.3
Medium Trucks:	60.		59.0		52.7		51		59.6		59.8
Heavy Trucks: Vehicle Noise:	61. 68.		66.9		50.9 63.7		52 59		60.5		60.7
Centerline Distance					30.7		- 55		07.0		00.
Cerneriirie Distant	e to Noise Co	mour (in reet		70 c	IBA	65	dBA		60 dBA	55	5 dBA
			Ldn:	69	9	1	49	<u> </u>	321		692
		CI	NEL:	7	4	1	60		345		742

	FH\	WA-RD-77-108	HIGI	1 YAWH	NOISE P	REDICT	ION M	ODEL					
	o: Existing e: Coast High at: West of Av				Project Name: NNCPC Job Number: 8211								
	SPECIFIC IN	NPUT DATA				1	VOISE	MODE	L INPUT	S			
Highway Data					Site Cor	nditions	(Hard	= 10, S	oft = 15)				
Average Daily 1	Traffic (Adt):	34,400 vehicle	s					Autos:	15				
Peak Hour I		10%						Axles):					
	our Volume:	3,440 vehicle	s		He	eavy Tru	cks (3	- Axles):	15				
	nicle Speed:	45 mph			Vehicle	Mix							
Near/Far Lar	ne Distance:	76 feet			Veh	icleType	9	Day	Evening	Night	Daily		
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%		
Bar	rier Height:	0.0 feet			М	ledium 7	rucks:	84.8%	4.9%	10.3%	1.84%		
Barrier Type (0-Wa		0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%		
Centerline Dis	t. to Barrier:	100.0 feet		ŀ	Noise S	ource E	levatio	ns (in f	eet)				
Centerline Dist. t	o Observer:	100.0 feet			710,00	Auto		2.000	,,,				
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Truck	s:	4.000					
Observer Height (	,	5.0 feet			Hear	vy Truck	s:	3.006	Grade Ad	justment	: 0.0		
	d Elevation:	0.0 feet		-		·							
	d Elevation:	0.0 feet		-	Lane Eq				reet)				
F	Road Grade:	0.0%			11	Auto m Truck		2.547 2.504					
	Left View: Right View:	-90.0 degre 90.0 degre				m Truck vy Truck		2.547					
FHWA Noise Mode	l Calculation	ıs											
VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fre	snel	Barrier Att	en Bei	m Atten		
Autos:	68.46			-4.1		-1.20		-4.87		000	0.000		
Medium Trucks:	79.45			-4.1		-1.20		-4.97		000	0.000		
Heavy Trucks:	84.25			-4.1		-1.20		-5.16	0.0	000	0.000		
Unmitigated Noise VehicleType	Levels (with Leg Peak Ho				vening	100	Night		l dn	_	NFI		
Autos:	66		64.7	Ley L	62.9			i.8	65.5	_	66.1		
Medium Trucks:		).3	58.8		52.4			1.9	59.4	-	59.6		
Heavy Trucks:	61	1.2	59.7		50.7		52	2.0	60.3	3	60.4		
Vehicle Noise:	68	3.4	66.7		63.5		58	3.8	67.4	4	67.8		
Centerline Distance	e to Noise C	ontour (in feet	t)										
					dBA		dBA	(	60 dBA		dBA		
			Ldn:	-	67		44		310		668		
		С	NEL:	7	72	1	54		332	7	16		

	FH	IWA-RD	-77-108	HIGH	WAY I	NOISE P	REDICTION	ON MC	DEL				
Road Nar	rio: Existing me: Coast Hig ent: West of M		r				Project I Job Nu			°C			
	SPECIFIC I	NPUT [	ATAC							L INPUT	S		
Highway Data						Site Conditions (Hard = 10, Soft = 15)							
Average Daily	Traffic (Adt):	36,400	vehicle:	S					Autos:	15			
Peak Hou	r Percentage:	109	%			Me	edium Tru	cks (2	Axles):	15			
Peak I	Hour Volume:	3,640	vehicle:	S		He	eavy Truci	ks (3+	Axles):	15			
Ve	ehicle Speed:	45	mph		H	Vehicle	Miv						
Near/Far La	ane Distance:	76	feet				nicleType		Day	Evening	Night	Daily	
Site Data							A	utos:	77.5%	6 12.9%	9.69	6 97.42%	
Rs	rrier Height:	0.0	feet			M	ledium Tru	ıcks:	84.8%	6 4.9%	10.39	6 1.84%	
Barrier Type (0-V		0.0					Heavy Tru	ıcks:	86.5%	6 2.7%	10.89	6 0.74%	
Centerline D	ist. to Barrier:	100.0	feet		F	Noisa S	ource Ele	vation	e (in f	oot)			
Centerline Dist.	to Observer:	100.0	feet		ŀ	140/36 0	Autos		000	ccij			
Barrier Distance	to Observer:	0.0	) feet			Modis	m Trucks		000				
Observer Height	(Above Pad):	5.0	feet				vy Trucks		006	Grade Ad	iuetmar	nt: 0.0	
F	Pad Elevation:	0.0	feet				*				ustrici	n. 0.0	
Ro	ad Elevation:	0.0	feet			Lane Eq	uivalent	Distan	ce (in	feet)			
	Road Grade:	0.0	1%				Autos.	92	.547				
	Left View:	-90.0	degree	es		Mediu	m Trucks	92	.504				
	Right View:	90.0	degree	es		Hea	vy Trucks	92	.547				
FHWA Noise Mod	lel Calculation	ns											
VehicleType	REMEL	Traffic	Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Be	erm Atten	
Autos:	68.46	3	3.66		-4.1	1	-1.20		-4.87	0.0	000	0.000	
Medium Trucks.	79.45	5	-13.58		-4.1	1	-1.20		-4.97	0.0	000	0.000	
Heavy Trucks.	84.25	5	-17.53		-4.1	1	-1.20		-5.16	0.0	000	0.000	
Unmitigated Nois	e Levels (wit	hout To	po and	barrie	er atte	nuation)							
VehicleType	Leq Peak Ho	our l	Leq Day	,	Leq E	vening	Leq N			Ldn		CNEL	
Autos.	6	6.8		64.9		63.1		57.	1	65.7	7	66.3	
Medium Trucks.	-	0.6		59.1		52.7		51.		59.6		59.8	
Heavy Trucks.		1.4		60.0		50.9		52.		60.6		60.7	
Vehicle Noise.	: 6	8.6		66.9		63.7		59.	1	67.6	3	68.1	
enterline Distance to Noise Contour (in feet)													
				L		dBA	65 d		- 1	60 dBA	5	5 dBA	
				Ldn:		69 149 322			693				
			CI	VEL:	- 7	74 160 345 744				744			

	FH	WA-RD-77-10	B HIGH	HWAY	NOISE P	REDICT	ION MO	DEL					
Road Nam	io: Existing ne: Coast High nt: East of Ma						Name: lumber:		С				
SITE	SPECIFIC IN	NPUT DATA				١	NOISE I	MODE	L INPUT	S			
Highway Data					Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt):	50,200 vehicle	es					Autos:	15				
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2 .	Axles):	15				
Peak H	lour Volume:	5,020 vehicle	es		He	avy Tru	cks (3+ i	Axles):	15				
Ve	hicle Speed:	45 mph			Vehicle	Mix							
Near/Far La	ne Distance:	76 feet				icleType	9	Day	Evening	Night	Daily		
Site Data							Autos:	77.5%	12.9%	9.69	6 97.42%		
Ra	rrier Heiaht:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.39	6 1.84%		
Barrier Type (0-W		0.0				Heavy T	rucks:	86.5%	2.7%	10.89	6 0.74%		
Centerline Di	st. to Barrier:	100.0 feet			Noise S	ourco E	lovation	e (in f	not)				
Centerline Dist.	to Observer:	100.0 feet			NOISE 3	Auto		000	eei)				
Barrier Distance	to Observer:	0.0 feet			Madiu	m Truck		000					
Observer Height (	(Above Pad):	5.0 feet				ry Truck		000	Grade Ad	iuetmar	rt- 0.0		
Pa	ad Elevation:	0.0 feet			i icai	y Huck	s. o.	000	Orado Au,	ustrici	n. 0.0		
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)				
	Road Grade:	0.0%				Auto		547					
	Left View:	-90.0 degre	ees		Mediu	m Truck	s: 92.	504					
	Right View:	90.0 degre	ees		Hear	y Truck	s: 92	547					
FHWA Noise Mode	el Calculation	ıs											
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresi	nel	Barrier Att	en Be	erm Atten		
Autos:	68.46			-4.	11	-1.20		-4.87	0.0	000	0.000		
Medium Trucks:				-4.		-1.20		-4.97		000	0.000		
Heavy Trucks:	84.25	-16.14	ļ	-4.	11	-1.20		-5.16	0.0	000	0.000		
Unmitigated Noise			l barri	er atte	nuation)								
VehicleType	Leq Peak Ho		,	Leq E	vening	Leq	Night		Ldn	1 -	CNEL		
Autos:	68		66.3		64.5		58.	-	67.1		67.7		
Medium Trucks:		2.0	60.4		54.1		52.	-	61.0	-	61.2		
Heavy Trucks:	62		61.4		52.3		53.0	_	61.9		62.1		
Vehicle Noise:		0.0	68.3		65.1		60.	5	69.0	)	69.5		
Centerline Distant	ce to Noise C	ontour (in fee	t)										
			L		dBA		dBA	(	60 dBA		5 dBA		
		_	Ldn:		86		85		399		859		
		C	NEL:		92	1	98		428		921		

	FHW	A-RD-77-108	HIGHW.	AY NOISE	PREDICT	ION MO	DDEL						
Road Nam	io: Existing With ie: Jamboree int: Eastbluff to	,	Hills		.,	t Name: lumber:	NNCP 8211	С					
SITE	SPECIFIC IN	PUT DATA			1	NOISE	MODE	L INPUT	S				
Highway Data				Site Co	Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt): 5	3,700 vehicle	s				Autos:	15					
Peak Hour	Percentage:	10%		Λ.	fedium Tr	ucks (2	Axles):	15					
Peak H	lour Volume:	5,370 vehicle	S	F	leavy Tru	cks (3+	Axles):	15					
Ve	hicle Speed:	45 mph		Vehicle	Miv								
Near/Far La	ne Distance:	76 feet			hicleType	2	Dav	Evening	Night	Daily			
Site Data						Autos:	77.5%	-		97.42%			
	rrier Heiaht:	0.0 feet			Medium T	rucks:	84.8%		10.3%				
Barrier Type (0-W		0.0			Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%			
Centerline Dis	. ,	100.0 feet		Maine	Source E	lovetio	no (in f	2041					
Centerline Dist.	to Observer:	100.0 feet		worse.				ei)					
Barrier Distance	to Observer:	0.0 feet			Auto um Truck		2.000						
Observer Height (	Above Pad):	5.0 feet					1.000	Grade Ad	livetmont	. 0.0			
Pa	ad Elevation:	0.0 feet		He	avy Truck	S: 8	3.006	Grade Au	justinent	. 0.0			
Ros	ad Elevation:	0.0 feet		Lane E	quivalen	t Distaı	nce (in i	feet)					
1	Road Grade:	0.0%			Auto	s: 92	2.547						
	Left View:	-90.0 degree	es	Medi	um Truck	s: 92	2.504						
	Right View:	90.0 degree	es	He	avy Truck	s: 92	2.547						
FHWA Noise Mode	el Calculations	:											
VehicleType	REMEL	Traffic Flow	Distar	nce Fini	e Road	Fres	snel	Barrier Att	en Ber	m Atten			
Autos:	68.46	5.35		-4.11	-1.20		-4.87	0.0	000	0.000			
Medium Trucks:	79.45	-11.89		-4.11	-1.20		-4.97	0.0	000	0.000			
Heavy Trucks:	84.25	-15.85		-4.11	-1.20		-5.16	0.0	000	0.000			
Unmitigated Noise	e Levels (witho	ut Topo and	barrier a	attenuation	)								
VehicleType	Leq Peak Hour	Leq Day	/ Le	eq Evening	Leq	Night		Ldn	C	NEL			
Autos:	68.		66.6	64.	8	58	.8	67.4	4	68.0			
Medium Trucks:	62.		60.7	54.		52		61.3		61.5			
Heavy Trucks:					6	53.		62.2		62.4			
Vehicle Noise:	70.3	3	68.6	65.	4	60	.8	69.3	3	69.8			
Centerline Distant	ce to Noise Co	ntour (in feet	)	70 101		10.4				10.4			
				70 dBA		dBA	6	60 dBA		dBA			
			Ldn: VFI :	90 96		94		417 447	-	198 164			
		CI	VEL:	96	2	เบช		44/	9	104			

	FH\	WA-RD-77-108	HIGHWAY	/ NOISE F	PREDICT	ION MOD	EL		
	o: Existing Wi e: Jamboree nt: North of Ea	,				t Name: N Number: 8			
	SPECIFIC IN	IPUT DATA				NOISE M			
Highway Data				Site Co	nditions	(Hard = 1	10, Soft =	= 15)	
Peak H	Percentage: our Volume:	10% 4,360 vehicle				A rucks (2 A. icks (3+ A.	xles):	15 15 15	
	hicle Speed:	45 mph		Vehicle	Mix				
Near/Far Lar	ne Distance:	76 feet		Ve	hicleTyp	e L	Day Ev	ening N	ight Daily
Site Data  Bar Barrier Type (0-W	rier Height: all, 1-Berm):	0.0 feet 0.0		,	Medium 1 Heavy 1	rucks: 8	77.5% 34.8% 36.5%	4.9% 1	9.6% 97.42% 0.3% 1.84% 0.8% 0.74%
Centerline Dis	st. to Barrier:	100.0 feet		Noise S	Source E	levations	(in feet)	)	
Roa	to Observer:	100.0 feet 0.0 feet 5.0 feet 0.0 feet 0.0 feet 0.0 feet 0.0% -90.0 degre		Lane E	Auto um Truck avy Truck quivalen Auto um Truck avy Truck	(s: 4.0 (s: 8.0 (st Distanc (s: 92.5 (s: 92.5	00 06 Gr e (in feet 47 04	ade Adjust	ment: 0.0
FHWA Noise Mode	el Calculation	-							
VehicleType	REMEL	Traffic Flow	Distance	e Finit	e Road	Fresne	el Bai	rrier Atten	Berm Atten
Autos:	68.46	4.44	-4	1.11	-1.20		4.87	0.000	0.000
Medium Trucks:	79.45	-12.79	-4	.11	-1.20	-	4.97	0.000	0.000
Heavy Trucks:	84.25	-16.75	-4	1.11	-1.20	-	5.16	0.000	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier att	enuation	)				
	Leq Peak Hou			Evening		Night	La		CNEL
Autos:	67		65.7	63.	-	57.9		66.5	67.1
Medium Trucks:	61		59.8	53.		51.9		60.4	60.6
Heavy Trucks:	62		60.8	51.		53.0		61.3	61.5
Vehicle Noise:		).4	67.7	64.	5	59.9		68.4	68.9
Centerline Distance	ce to Noise Co	ontour (in feet						.D.4	55 IDA
				0 dBA		dBA	60 a		55 dBA
			Ldn:	78		68	36	-	782
		C	NEL:	84	1	81	38	19	839

Tuesday, May 29, 2012

FH	WA-RD-77-108	HIGHWA	/ NOISE PI	REDICTIO	N MODE	L			
Scenario: Existing V	Vith Project			Project N	lame: Ni	NCP	2		
Road Name: Jamboree				Job Nu	mber: 82	11			
Road Segment: South of S	San Joaquin Hills								
SITE SPECIFIC I	NPUT DATA						L INPUT	S	
Highway Data			Site Con	ditions (l	Hard = 10	), Sc	ft = 15)		
Average Daily Traffic (Adt):	36,000 vehicles				AL	itos:	15		
Peak Hour Percentage:	10%		Me	dium Truc	ks (2 Ax	les):	15		
Peak Hour Volume:	3,600 vehicles		He	avy Truck	s (3+ Ax	les):	15		
Vehicle Speed:	45 mph		Vehicle	Mix					
Near/Far Lane Distance:	76 feet		Veh	icleType	D	ay	Evening	Night	Daily
Site Data				Au	itos: 77	7.5%	12.9%	9.6%	97.42%
Barrier Height:	0.0 feet		M	edium Tru	cks: 84	1.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0		F	Heavy Tru	cks: 86	6.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet		Noise So	ource Ele	vations (	in fe	et)		
Centerline Dist. to Observer:	100.0 feet			Autos:			,		
Barrier Distance to Observer:	0.0 feet		Mediu	m Trucks:					
Observer Height (Above Pad):	5.0 feet			vy Trucks:		-	Grade Ad	iustment	0.0
Pad Elevation:	0.0 feet			•		-			
Road Elevation:	0.0 feet		Lane Eq	uivalent l		•	eet)		
Road Grade:	0.0%			Autos:					
Left View:	-90.0 degree	S		m Trucks:					
Right View:	90.0 degree	s	Heav	y Trucks:	92.54	7			
FHWA Noise Model Calculatio	ns								
VehicleType REMEL	Traffic Flow	Distance		Road	Fresnel		Barrier Att	en Ber	m Atten
Autos: 68.4	6 3.61	-4	l.11	-1.20	-4	.87	0.0	000	0.000
Medium Trucks: 79.4	5 -13.63	-4	l.11	-1.20	-4	.97	0.0	000	0.000
Heavy Trucks: 84.2	5 -17.58	-4	1.11	-1.20	-5	.16	0.0	000	0.000
Unmitigated Noise Levels (wit	hout Topo and I	oarrier att	enuation)						
VehicleType Leq Peak Ho	, ,		Evening	Leq N	•		Ldn		VEL
		64.9	63.1		57.0		65.7		66.3
		9.0	52.6		51.1		59.6		59.8
,		9.9	50.9		52.1		60.5		60.6
Vehicle Noise: 6	8.6	6.9	63.7		59.0		67.6	6	68.0
Centerline Distance to Noise (	Contour (in feet)								
			0 dBA	65 d		6	0 dBA		dBA
									88
		.dn: IFI :	69 74	148			319 343	-	88 38

Tuesday, May 29, 2012

	FHV	VA-RD-77-108	HIGH	HWAY	NOISE PF	REDICT	ION MOI	DEL			-
Road Nam	io: Existing Wit io: Jamboree int: North of Sa	,					Name: I		С		
SITE	SPECIFIC IN	PUT DATA				1	NOISE N	1ODE	L INPUTS	3	
Highway Data					Site Con	ditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt): 3	8,600 vehicle	s				,	Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2 A	(xles	15		
Peak H	lour Volume:	3,860 vehicle	s		He	avy Tru	cks (3+ A	(xles	15		
Ve	hicle Speed:	45 mph			Vehicle I	Miv					
Near/Far La	ne Distance:	76 feet				icleType	9	Day	Evening	Night	Daily
Site Data								77.5%		9.6%	
Ra	rrier Heiaht:	0.0 feet			Me	edium T	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0			F	leavy T	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	st. to Barrier:	100.0 feet			Noise Sc	urce F	levation	e (in f	oot)		
Centerline Dist.	to Observer:	100.0 feet			140/36 00	Auto		000	<i>(()</i>		
Barrier Distance	to Observer:	0.0 feet			Modiuu	n Truck		000			
Observer Height (	(Above Pad):	5.0 feet				y Truck		006	Grade Adj	iietman	. 00
Pa	ad Elevation:	0.0 feet			Heav	y IIIUCK	3. 0.0	,00	Orauc Auj	usuncin	. 0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distand	e (in	feet)		
	Road Grade:	0.0%				Auto	s: 92.5	547			
	Left View:	-90.0 degree	es		Mediur	n Truck	s: 92.5	504			
	Right View:	90.0 degree	es		Heav	y Truck	s: 92.	547			
FHWA Noise Mod	el Calculations	5									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresn	el	Barrier Atte	en Be	rm Atten
Autos:	68.46	3.91		-4.	11	-1.20		-4.87	0.0	100	0.000
Medium Trucks:	79.45	-13.32		-4.	11	-1.20		-4.97	0.0	00	0.000
Heavy Trucks:	84.25	-17.28		-4.	11	-1.20		-5.16	0.0	00	0.000
Unmitigated Noise	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	67.		65.2		63.4		57.3		66.0	)	66.6
Medium Trucks:	60.		59.3		52.9		51.4		59.9		60.1
Heavy Trucks:	61.		60.2		51.2		52.5		60.8		60.9
Vehicle Noise:	68.	.9	67.2		64.0		59.3		67.9	)	68.3
Centerline Distant	ce to Noise Co	ntour (in feet	)								
·					dBA		dBA	- (	60 dBA		dBA
			Ldn:		72		55		335		721
		CI	NEL:		77	1	67		359	7	773

	FHV	VA-RD-77-108	HIGHW <i>A</i>	AY NOISE P	REDICTIO	N MODE	L		-	
	o: Existing Wi e: Jamboree at: North of Co	,			Project N Job Nur	ame: Nt				
SITE S	SPECIFIC IN	PUT DATA			NC	ISE MO	DEL INP	JTS		
Highway Data				Site Co	nditions (F	lard = 10	), Soft = 15	)		
Peak H	Percentage: our Volume:	10% 3,210 vehicles			edium Truc eavy Truck	ks (2 Ax	/			
Vel Near/Far I ar	hicle Speed:	45 mph 76 feet		Vehicle	Mix					
	ie Distance.	76 1661		Vel	nicleType		ay Evenii		_	aily
Site Data Barrier Type (0-W	rier Height: all, 1-Berm):	0.0 feet 0.0			Au ledium Tru Heavy Tru	cks: 84	7.5% 12.9 1.8% 4.9 6.5% 2.7	% 10	).3% 1	.42° .84° .74°
Centerline Dis	t. to Barrier:	100.0 feet		Noise S	ource Ele	ations (	in feet)			_
Centerline Dist. Barrier Distance of Observer Height (A	to Observer:	0.0 feet 5.0 feet 0.0 feet		Mediu	Autos: m Trucks: vy Trucks:	2.00 4.00 8.00	0	Adjustr	ment: 0.0	D
Roa	d Elevation:	0.0 feet		Lane Ed	uivalent E	istance	(in feet)			
F	Road Grade: Left View: Right View:	0.0% -90.0 degree 90.0 degree			Autos: m Trucks: vy Trucks:	92.54 92.50 92.54	4			
FHWA Noise Mode	el Calculation:	s		-						_
VehicleType	REMEL	Traffic Flow	Distan	ce Finite	Road	Fresnel	Barrier	Atten	Berm A	tter
Autos: Medium Trucks:	68.46 79.45	3.11 -14.12		-4.11 -4.11	-1.20 -1.20	-4	.87 .97	0.000		0.00
Heavy Trucks:	84.25	-18.08		-4.11	-1.20	-5	.16	0.000	(	0.00
Unmitigated Noise				,						
	Leq Peak Hou	, ,		q Evening	Leq N	_	Ldn		CNEL	
Autos:	66		64.4	62.6 52.1		56.5		55.2 59.1		65
Medium Trucks:	60		58.5 59.4	52.1 50.4		50.6 51.6		59.1 50.0		59.
Heavy Trucks: Vehicle Noise:	60		66.4	63.2		51.6		50.0 57.1		60
Centerline Distance	e to Noise Co	ntour (in foot								_
Jenner IIIIe Distalle	e to Noise CC	micour (mr ieet)		70 dBA	65 dE	BA	60 dBA		55 dB/	4
			dn:	64	137		296		637	
		CA	IFI:	68	147		317		684	

	FHV	WA-RD-77-108	HIGHWAY	NOISE F	REDICT	TION MODE	-	
	o: Existing Wi e: Jamboree nt: South of Sa	,				t Name: NN Number: 821		
	SPECIFIC IN	IPUT DATA					DEL INPUTS	6
Highway Data				Site Co	nditions	(Hard = 10,	Soft = 15)	
	. ,	34,600 vehicle 10% 3,460 vehicle 45 mph		Н	eavy Tru	Auto rucks (2 Axle rucks (3+ Axle	s): 15	
Near/Far Lar	ne Distance:	76 feet		Vehicle		e Da	. [=	Mints Daile
Site Data					hicleTyp Medium 1	Autos: 77.	5% 12.9%	Night Daily 9.6% 97.42% 10.3% 1.84%
Barrier Type (0-Wa	rier Height: all, 1-Berm):	0.0 feet 0.0		, A	Heavy 1			10.8% 0.74%
Centerline Dis	t. to Barrier:	100.0 feet		Noise S	ource E	levations (in	n feet)	
Roa	o Observer:	100.0 feet 0.0 feet 5.0 feet 0.0 feet 0.0 feet 0.0% -90.0 degre	es	Hea	Auto Im Truck Ivy Truck <b>quivaler</b> Auto Im Truck	ks: 4.000 ks: 8.006 at Distance ( ps: 92.547	in feet)	ustment: 0.0
	Right View:	90.0 degre	es	Hea	vy Truci	ks: 92.547		
FHWA Noise Mode VehicleType	REMEL	Traffic Flow	Distance	Finite	e Road	Fresnel	Barrier Atte	en Berm Atten
Autos:	68.46	3,44		.11	-1.20			
Medium Trucks:	79.45	-13.80	-4	.11	-1.20	-4.9	97 0.0	0.000
Heavy Trucks:	84.25	-17.75	-4	.11	-1.20	-5.	16 0.0	0.000
Unmitigated Noise								
,,	Leq Peak Hou			Evening		Night	Ldn	CNEL
Autos: Medium Trucks:	66 60		64.7 58.8	62.9 52.9		56.9 50.9	65.5 59.4	
Heavy Trucks:	61		58.8 59.8	50.3		50.9	59.4 60.3	
Vehicle Noise:	68		66.7	63.5		58.8	67.4	
Centerline Distanc	e to Noise Co	ontour (in feet	•)					
				0 dBA	65	dBA	60 dBA	55 dBA
			Ldn:	67	1	144	311	670
		C	NEL:	72	1	155	334	719

Tuesday, May 29, 2012

	FH'	WA-RD-77-108	HIGHW	AY NO	DISE PE	REDICTION	ом ис	DDEL					
Scenar	io: Existing W	ith Project				Project I	Name:	NNCP	C				
	e: Jamboree					Job Nu	ımber:	8211					
Road Segme	nt: South of C	oast Highway											
SITE	SPECIFIC IN	NPUT DATA				N	OISE	MODE	L INPUT	S			
Highway Data				S	ite Con	ditions (	Hard :	= 10, S	oft = 15)				
Average Daily	Traffic (Adt):	12,200 vehicles	3					Autos:	15				
Peak Hour	Percentage:	10%			Me	dium Tru	cks (2	Axles):	15				
Peak F	lour Volume:	1,220 vehicles	3		He	avy Truc	ks (3+	Axles):	15				
Ve	hicle Speed:	45 mph		1/	ehicle l	Miv							
Near/Far La	ne Distance:	76 feet				icleType		Day	Evening	Night	Daily		
Site Data					Veri		utos:	77.5%	-	9.6%			
					M	edium Tri		84.8%		10.3%	1.84%		
Barrier Type (0-W	rrier Height:	0.0 feet 0.0				leavy Tri		86.5%		10.8%	0.74%		
Centerline Di	. ,	0.0 100.0 feet								10.070	0.7 170		
Centerline Di		100.0 feet		N	loise Sc	ource Ele	evatio	ns (in f	eet)				
Barrier Distance		0.0 feet			Autos: 2.000								
Observer Height		5.0 feet			Mediur	n Trucks	: 4	.000					
	ad Flevation:	0.0 feet			Heav	y Trucks	: 8	.006	Grade Ad	justment	0.0		
	ad Elevation:	0.0 feet		1.	ane Fa	uivalent	Distar	nce (in	feet)				
	Road Grade:	0.0%		F	u	Autos		.547	1001)				
	Left View:	-90.0 degree	00		Mediuu	n Trucks		.504					
	Right View:	90.0 degree				y Trucks		.547					
	ragni vion.	30.0 degree	,,,			,							
FHWA Noise Mod	el Calculation	ıs											
VehicleType	REMEL	Traffic Flow	Distar	се	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten		
Autos:	68.46	-1.09		-4.11		-1.20		-4.87	0.0	000	0.000		
Medium Trucks:	79.45	-18.33		-4.11		-1.20		-4.97	0.0	000	0.000		
Heavy Trucks:	84.25	-22.28		-4.11		-1.20		-5.16	0.0	000	0.000		
Unmitigated Nois	e Levels (with	out Topo and	barrier a	attenu	iation)								
VehicleType	Leq Peak Ho	ur Leq Day	L	eq Eve	ening	Leq N	light		Ldn	C	VEL		
Autos:	62	2.1	60.2		58.4		52.	.3	61.0	)	61.6		
Medium Trucks:	Medium Trucks: 55.8 54.3				47.9		46.	4	54.9	9	55.1		
Heavy Trucks:	Heavy Trucks: 56.7 55.2				46.2		47.	4	55.8	3	55.9		
Vehicle Noise:	63	3.9	62.2		59.0		54.	.3	62.9	9	63.3		
Centerline Distan	ce to Noise C	ontour (in feet	)										
				70 dE	BA	65 a	IBA .	-	60 dBA	55	dBA		
	Ldn:			33 72 155 3			34						
	CNEL:			36 77 167 359									

Tuesday, May 29, 2012 Tuesday, May 29, 2012

	FHW	/A-RD-77-108	нісні	WAYN	IOISE PE	PEDICTI	ON MOI	DEL			
Road Nan	nio: Existing Wit ne: Santa Cruz ent: North of San	h Project			1010211	Project		NNCP	С		
SITE	SPECIFIC IN	PUT DATA				N	OISE N	1ODE	L INPUTS	3	
Highway Data					Site Con						
Average Daily	Traffic (Adt):	1,700 vehicle	s				,	Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2 A	(xles	15		
Peak F	lour Volume:	170 vehicle	s		He	avy Truc	ks (3+ A	xles):	15		
Ve	ehicle Speed:	45 mph		F	Vehicle I	Miss					
Near/Far La	ne Distance:	52 feet		F		cleType		Dav	Evening	Night	Dailv
Site Data				$\dashv$				77.5%		9.6%	. ,
D-	rrier Heiaht:	0.0 feet			Me	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-V		0.0			F	leavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
	ist. to Barrier:	100.0 feet			Noise Sc	urco El	ovation	r (in f	not)		
Centerline Dist.	to Observer:	100.0 feet		H	NOISE SC	Autos		000	eei)		
Barrier Distance	to Observer:	0.0 feet			Modiuu	n Trucks		000			
Observer Height	(Above Pad):	5.0 feet				y Trucks		006	Grade Adj	ustmont	
P	ad Elevation:	0.0 feet			пеач	y Trucks	. 0.0	000	Grade Auj	ustinent	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalent	Distanc	e (in	feet)		
	Road Grade:	0.0%				Autos	: 96.6	607			
	Left View:	-90.0 degree	es		Mediur	n Trucks	: 96.	566			
	Right View:	90.0 degree	es		Heav	y Trucks	: 96.6	808			
FHWA Noise Mod	lel Calculations										
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresn	el	Barrier Atte	en Bei	rm Atten
Autos:	68.46	-9.65		-4.3	9	-1.20		-4.87	0.0	100	0.000
Medium Trucks:	79.45	-26.88		-4.3	9	-1.20		-4.97	0.0	100	0.000
Heavy Trucks:	84.25	-30.84		-4.3	9	-1.20		-5.16	0.0	00	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	r atter	nuation)						
VehicleType	Leq Peak Hou	r Leq Day	′	Leq E	vening	Leq	Vight		Ldn	С	NEL
Autos:	53.	2	51.3		49.6		43.5		52.1		52.7
Medium Trucks:	47.	0	45.5		39.1		37.6		46.0	)	46.3
Heavy Trucks:	47.	8	46.4		37.4		38.6		47.0	)	47.1
Vehicle Noise:	55.	1	53.3		50.2		45.5		54.0	)	54.5
Centerline Distan	ce to Noise Co	ntour (in feet	)								
					dBA	65 (		-	60 dBA		dBA
			Ldn:		9	1	-		40		86
		CI	VEL:	9	9	2	0		43		92

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	FU	WA-RD-77-10	o HICI	LIMAY	NOISE D	BEDICTI	ON M	DEL			
			8 HIGI	HWAT	NUISE P						
	io: Existing W					Project			С		
	e: Santa Cruz	_				Job Ni	umber:	8211			
Road Segme	nt: North of Sa	an Clemente									
SITE	SPECIFIC II	NPUT DATA				N	OISE	MODE	L INPUT	5	
Highway Data					Site Cor	ditions	(Hard:	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	11,800 vehicl	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles):	15		
Peak H	lour Volume:	1,180 vehicl	es		He	avy Truc	ks (3+	Axles):	15		
Ve	hicle Speed:	45 mph			Vehicle						
Near/Far La	ne Distance:	52 feet				icleTvpe		Dav	Evening	Niaht	Daily
Site Data					ven	,,,	lutos:	77.5%		9.6%	
						ء edium Tr		84.8%		10.3%	
	rrier Height:	0.0 feet				eulum m Heavv Tr		86.5%		10.8%	
Barrier Type (0-W	. ,	0.0				neavy II	ucks.	00.5%	2.170	10.0%	0.7476
Centerline Di		100.0 feet			Noise S	ource El	evatio	ns (in f	eet)		
Centerline Dist.		100.0 feet				Autos	s: 2	.000			
Barrier Distance		0.0 feet			Mediu	m Trucks	s: 4	.000			
Observer Height (		5.0 feet			Hear	y Trucks	s: 8	.006	Grade Adj	iustmen	t: 0.0
	ad Elevation:	0.0 feet			/ F-		D!-4-	/!	f4)		
	ad Elevation:	0.0 feet			Lane Eq				reet)		
	Road Grade:	0.0%				Autos		.607			
	Left View:	-90.0 degr				m Trucks		5.566			
	Right View:	90.0 degr	ees		Hea	y Trucks	s: 9t	6.608			
FHWA Noise Mod	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow		stance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	68.46		-	-4.3		-1.20		-4.87	0.0		0.000
Medium Trucks:				-4.3		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-22.4	3	-4.3	39	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	d barri	ier atte	nuation)						
VehicleType	Leq Peak Ho	ur Leq Da	ay .	Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:	61	1.6	59.7		58.0		51	.9	60.5	5	61.1
Medium Trucks:	55	5.4	53.9		47.5		46	.0	54.4	ļ	54.7
Heavy Trucks:	56	5.2	54.8		45.8		47	.0	55.4	ļ	55.5
Vehicle Noise:	63	3.5	61.7		58.6		53	.9	62.4	1	62.9
Centerline Distan	ce to Noise C	ontour (in fee	et)								
			I		dBA		dBA	(	60 dBA		5 dBA
			Ldn:		31	6	-		145		313
		(	CNEL:		34	7	2		156		336

	FH\	WA-RD-77-108	HIGHWA	Y NO	DISE PR	EDICT	ION MO	DDEL			
Road Nam	io: Existing Wi e: Santa Cruz nt: Souh of Sa					Project Job N	Name: umber:		С		
SITE	SPECIFIC IN	IPUT DATA				Ν	IOISE	MODE	L INPUT:	S	
Highway Data				S	ite Con	ditions	(Hard :	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	13,200 vehicles	3					Autos:	15		
Peak Hour	Percentage:	10%			Med	dium Tri	ucks (2	Axles):	15		
Peak H	lour Volume:	1,320 vehicles	6		Hea	avy Truc	cks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		V	ehicle N	Niv					
Near/Far La	ne Distance:	52 feet		-		cleType	.	Dav	Evening	Night	Daily
Site Data				+			Autos:	77.5%		9.6%	
	la I I a I a I a I a I	0.0 feet		-	Me	dium Ti		84.8%		10.3%	1.84%
Barrier Type (0-W	rrier Height:	0.0 reet 0.0			Н	leavy Ti	rucks:	86.5%		10.8%	0.74%
Centerline Di	. ,	100.0 feet		L.							
Centerline Dist.	to Observer:	100.0 feet		N	oise So				eet)		
Barrier Distance	to Observer:	0.0 feet				Auto		.000			
Observer Height (	Above Pad):	5.0 feet			Mediun			.000	Grade Ad	i rotmont	
Pa	ad Elevation:	0.0 feet			Heav	y Truck	s: 8	.006	Grade Adj	usuneni.	0.0
Roa	ad Elevation:	0.0 feet		L	ane Equ	iivalen	t Distar	ice (in	feet)		
ı	Road Grade:	0.0%				Auto	s: 96	.607			
	Left View:	-90.0 degree	s		Mediun	n Truck	s: 96	.566			
	Right View:	90.0 degree	es		Heav	y Truck	s: 96	.608			
FHWA Noise Mode	el Calculation	-									
VehicleType	REMEL	Traffic Flow	Distan		Finite		Fres		Barrier Att		m Atten
Autos:	68.46			4.39		-1.20		-4.87		000	0.000
Medium Trucks:	79.45			4.39		-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-21.94		4.39		-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier a	ttenu	ation)						
VehicleType	Leq Peak Hou	ur Leq Day	Le	q Eve	ening	Leq	Night		Ldn	CI	VEL
Autos:	62		60.2		58.5		52.		61.0		61.6
Medium Trucks:	55		54.4		48.0		46.	-	54.9		55.2
Heavy Trucks:	56	5.7	55.3		46.3		47.	.5	55.9	9	56.0
Vehicle Noise:	64	1.0	62.2		59.1		54.	4	62.9	9	63.4
Centerline Distant	ce to Noise Co	ontour (in feet)	1								

60 dBA 157 168

Ldn: CNEL:

Tuesday, May 29, 2012

	FHV	WA-RD-77-108	HIGHWA	Y NOISE P	REDICTIO	ом мо	DEL			
Scenario	o: Existing Wi	ith Project			Project N	Vame:	NNCP	С		
Road Name	e: Santa Cruz				Job Nu	mber:	8211			
Road Segmen	t: South of Sa	an Clemente								
SITE S	SPECIFIC IN	IPUT DATA			NO	DISE I	MODE	L INPUT	S	
Highway Data				Site Con	ditions (i	Hard =	10, S	oft = 15)		
Average Daily 1	Fraffic (Adt):	9,400 vehicles					Autos:	15		
Peak Hour I	Percentage:	10%		Me	dium Truc	cks (2 )	Axles):	15		
Peak Ho	our Volume:	940 vehicles		He	avy Truck	ks (3+ )	4xles):	15		
Vel	nicle Speed:	45 mph		Vehicle	Miv					
Near/Far Lar	e Distance:	52 feet			icleTvpe		Dav	Evening	Night	Daily
Site Data				1011	,,	utos:	77.5%		9.6%	
Par	rier Heiaht:	0.0 feet		M	edium Tru		84.8%		10.3%	1.84%
Barrier Type (0-Wa		0.0 reet		1	Heavy Tru	icks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	. ,	100.0 feet								
Centerline Dist. t		100.0 feet		Noise So	ource Ele		•	eet)		
Barrier Distance t	o Observer:	0.0 feet			Autos:		000			
Observer Height (A		5.0 feet			m Trucks:		000			
	d Elevation:	0.0 feet		Heav	y Trucks:	8.	006	Grade Ad	ljustment	0.0
Roa	d Elevation:	0.0 feet		Lane Eq	uivalent l	Distan	ce (in	feet)		
F	Road Grade:	0.0%			Autos:	96.	607			
	Left View:	-90.0 degree	s	Mediu	m Trucks:	96.	566			
	Right View:	90.0 degree	s	Heav	y Trucks:	96.	608			
FHWA Noise Mode	l Calculation	s		1						
VehicleType	REMEL	Traffic Flow	Distanc	e Finite	Road	Fresi	nel	Barrier At	ten Ber	m Atten
Autos:	68.46	-2.22	-4	4.39	-1.20		-4.87	0.	000	0.000
Medium Trucks:	79.45	-19.46	-4	4.39	-1.20		-4.97	0.	000	0.000
Heavy Trucks:	84.25	-23.41	-4	4.39	-1.20		-5.16	0.	000	0.000
Unmitigated Noise	Levels (with	out Topo and I	barrier at	tenuation)						
VehicleType	Leq Peak Hou	ır Leq Day	Lec	Evening	Leq N	light		Ldn	C	VEL
Autos:	60	.6 5	58.7	57.0		50.9	9	59.	5	60.2
Medium Trucks:	54	.4 5	52.9	46.5		45.0	)	53.	4	53.7
Heavy Trucks:	55	.2 5	53.8	44.8		46.0	)	54.	4	54.5
Vehicle Noise:	62	2.5	30.7	57.6		52.9	9	61.	5	61.9
Centerline Distanc	e to Noise Co	ontour (in feet)								
				70 dBA	65 d		- (	60 dBA		dBA
			_dn: IFI :	27 29	58 62			125 134		69 89

	FH	WA-RD-77-108	HIGH	WAY	NOISE P	REDICTI	ON MO	DEL			
	o: Existing W e: Santa Cruz nt: North of Ne	<u>,</u>				Project Job N	Name: umber:		С		
SITE S	SPECIFIC IN	NPUT DATA				N	OISE N	NODE	L INPUT	5	
Highway Data					Site Cor	ditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	9,000 vehicle	S					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2 )	4xles):	15		
Peak H	our Volume:	900 vehicle	s		He	avy Truc	ks (3+ )	4xles):	15		
Vei	hicle Speed:	45 mph		-	Vehicle	Mix					
Near/Far Lai	ne Distance:	52 feet				icleType		Dav	Evening	Nigh	t Daily
Site Data							Autos:	77.5%		9.6	
Par	rier Heiaht:	0.0 feet			М	edium Tı	ucks:	84.8%	4.9%	10.3	% 1.84%
Barrier Type (0-W		0.0				Heavy Tr	ucks:	86.5%	2.7%	10.8	% 0.74%
Centerline Dis	. ,	100.0 feet		-							
Centerline Dist.	to Observer:	100.0 feet		-	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Autos		000			
Observer Height (	Above Pad):	5.0 feet				m Trucks		000	0		
	ad Elevation:	0.0 feet			Hea	y Trucks	s: 8.	006	Grade Ad	ustme	nt: 0.0
Roa	ad Elevation:	0.0 feet		Ī	Lane Eq	uivalent	Distan	ce (in	feet)		
F	Road Grade:	0.0%		Ī		Autos	s: 96.	607			
	Left View:	-90.0 degre	es		Mediu	m Trucks	s: 96.	566			
	Right View:	90.0 degre	es		Hear	y Trucks	s: 96.	608			
FHWA Noise Mode	el Calculation	ıs		·							
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresi	nel	Barrier Att	en E	Berm Atten
Autos:	68.46			-4.3		-1.20		-4.87		000	0.000
Medium Trucks:	79.45			-4.3		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-23.60		-4.3	39	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise			_					,		,	
	Leq Peak Ho			Leq E	vening	Leq	Night		Ldn		CNEL
Autos:	60		58.6		56.8		50.7		59.4		60.0
Medium Trucks:	-	1.2	52.7		46.3		44.8	-	53.3		53.5
Heavy Trucks:		5.1	53.6		44.6		45.8		54.2		54.3
Vehicle Noise:	-	2.3	60.5		57.4		52.7	7	61.3	3	61.7
Centerline Distance	e to Noise C	ontour (in fee	)					,			
			L		dBA		dBA	(	60 dBA		55 dBA
		_	Ldn:		26		6		121		262
		С	NEL:		28	6	0		130		281

		-RD-77-108	HIGHV	VAY N	IOISE PI						
Scenario: Existin						Project			2		
Road Name: Newp						Job No	ımber:	8211			
Road Segment: West	of Newp	ort CTR									
SITE SPECIF	C INP	UT DATA				N	OISE N	/ODE	LINPUTS	3	
Highway Data					Site Con	ditions (	Hard =	10, So	ft = 15)		
Average Daily Traffic (A	dt): 7,	000 vehicles						Autos:	15		
Peak Hour Percenta	ge:	10%			Me	dium Tru	cks (2 A	(xles	15		
Peak Hour Volui	ne:	700 vehicles			He	avy Truc	ks (3+ A	(xles	15		
Vehicle Spe	ed:	45 mph		Η,	Vehicle	Miv					
Near/Far Lane Distan	ce:	76 feet				icleTvpe		Dav	Evening	Night	Dailv
Site Data					V C//	,,.		77.5%	12.9%	9.6%	. ,
					M	edium Tr		84.8%		10.3%	
Barrier Heig		0.0 feet 0.0				Heavy Tr		86.5%		10.8%	
Barrier Type (0-Wall, 1-Ber Centerline Dist. to Barr	,	0.0 100.0 feet				-				10.070	0.7 170
Centerline Dist. to Ban Centerline Dist. to Obsert		100.0 feet		1	Noise S	ource Ele	evation	s (in fe	et)		
Barrier Distance to Observ		0.0 feet				Autos	: 2.0	000			
					Mediu	m Trucks	: 4.0	000			
Observer Height (Above Pa Pad Flevat	,	5.0 feet			Heav	y Trucks	: 8.0	006	Grade Adj	ustmen	: 0.0
Road Flevati		0.0 feet 0.0 feet		-	l ano Fa	uivalent	Dietani	o (in f	oot)		
Road Elevali Road Gra		0.0 feet 0.0%		F.	Lane Lq	Autos			ccij		
I eft Vi		-90.0 degree			Madiu	m Trucks					
Right Vi		90.0 degree				y Trucks					
ragiit vi	ow.	90.0 degree	5		ricar	ry Trucks	. 52.	541			
FHWA Noise Model Calcul	ations										
VehicleType REME	L 7	raffic Flow	Dista	ance	Finite	Road	Fresn	iel i	Barrier Atte	en Be	rm Atten
	8.46	-3.50		-4.1	1	-1.20		-4.87	0.0	00	0.000
	9.45	-20.74		-4.1	1	-1.20		-4.97	0.0	00	0.000
Heavy Trucks: 8	4.25	-24.69		-4.1	1	-1.20		-5.16	0.0	00	0.000
Unmitigated Noise Levels	(withou	t Topo and I	barrier	atten	uation)						
VehicleType Leq Pea	k Hour	Leq Day	1	Leq E	vening	Leq I	Vight		Ldn	С	NEL
Autos:	59.6	5	7.7		56.0		49.9	)	58.5		59.2
Medium Trucks:	53.4	5	51.9		45.5		44.0	)	52.4		52.7
Heavy Trucks:	54.2		52.8		43.8		45.0	)	53.4		53.5
Vehicle Noise:	61.5	Ę	59.7		56.6		51.9	)	60.5		60.9
Centerline Distance to Noi	se Con	tour (in feet)									
Centerline Distance to Noi	se Con	tour (in feet)		70 c	dBA	65 (	iBA	6	0 dBA	55	i dBA
Centerline Distance to Noi	se Con	,	_dn:	70 0		65 d		6	0 dBA 107		i dBA 231

	FHV	VA-RD-77-108	HIGHWA	AY NOIS	SE PR	EDICT	ION M	ODEL			
	o: Existing Wi e: Santa Cruz et: South of Ne						Name: lumber:	NNCP 8211	С		
SITE S	SPECIFIC IN	IPUT DATA				1	IOISE	MODE	L INPUT	S	
Highway Data				Site	Conc				oft = 15)		
Average Daily	Traffic (Adt):	4,300 vehicles	3					Autos:	15		
Peak Hour	Percentage:	10%			Med	lium Tr	ucks (2	Axles):	15		
Peak H	our Volume:	430 vehicles	3		Hea	vy Tru	cks (3+	Axles):	15		
Vel	nicle Speed:	45 mph		Veh	nicle N	lix					
Near/Far Lar	ne Distance:	52 feet				их cleТуре	,	Day	Evening	Night	Daily
Site Data						-	Autos:	77.5%	12.9%	9.6%	97.42
Bar	rier Height:	0.0 feet			Me	dium T	rucks:	84.8%	4.9%	10.3%	1.84
Barrier Type (0-Wa		0.0			Н	eavy T	rucks:	86.5%	2.7%	10.8%	0.74
Centerline Dis	t. to Barrier:	100.0 feet		Noi	se So	urce E	levatio	ns (in f	eet)		
Centerline Dist. t	o Observer:	100.0 feet				Auto		2.000	,		
Barrier Distance t	o Observer:	0.0 feet		٨.	1edium	n Truck		1.000			
Observer Height (A	Above Pad):	5.0 feet				/ Truck		3.006	Grade Ad	liustmen	t: 0.0
	d Elevation:	0.0 feet								,	
	d Elevation:	0.0 feet		Lan	e Equ			nce (in	feet)		
F	Road Grade:	0.0%				Auto		6.607			
	Left View:	-90.0 degree				1 Truck		6.566			
	Right View:	90.0 degree	es		Heavy	/ Truck	s: 96	8.608			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Distan		Finite I		Fres		Barrier At	ten Be	rm Atter
Autos:	68.46	-5.62		-4.39		-1.20		-4.87		000	0.00
Medium Trucks:	79.45	-22.85		-4.39		-1.20		-4.97		000	0.00
Heavy Trucks:	84.25	-26.81		-4.39		-1.20		-5.16	0.	000	0.00
Unmitigated Noise										1 -	
,,	Leq Peak Hou			eq Even	-	Leq	Night	_	Ldn		NEL
Autos:	57		55.4		53.6		47		56.	-	56
Medium Trucks:	51		49.5		43.1		41		50.		50
Heavy Trucks: Vehicle Noise:	51 59		50.4 57.3		41.4 54.2		42 49		51. 58.	-	51 58
Centerline Distance					J2				50.		
Centernine Distant	e io noise ci	miour (iii ieei,		70 dBA	1	65	dBA	- (	60 dBA	55	5 dBA
			Ldn:	16		3	34		74		160

Tuesday, May 29, 2012

FH	WA-RD-77-108 HIG	HWAY NOIS	SE PREDICTIO	N MODEL		
Scenario: Existing W Road Name: Newport C Road Segment: South of S	TR		.,	ame: NNCF nber: 8211	PC	
SITE SPECIFIC II	NPUT DATA		NC	ISE MODI	EL INPUTS	
Highway Data		Site	e Conditions (F	lard = 10, S	oft = 15)	
Average Daily Traffic (Adt):	7,700 vehicles			Autos	: 15	
Peak Hour Percentage:	10%		Medium Truc	ks (2 Axles)	: 15	
Peak Hour Volume:	770 vehicles		Heavy Truck	s (3+ Axles)	: 15	
Vehicle Speed:	45 mph	1/-4	hicle Mix			
Near/Far Lane Distance:	76 feet	ven		Dav	Evening	Mintel Daile
Site Data			VehicleType	tos: 77.59	-	Night Daily 9.6% 97.42%
			Medium Trui			10.3% 1.84%
Barrier Height:	0.0 feet		Heavy Tru			10.8% 0.74%
Barrier Type (0-Wall, 1-Berm):	0.0		neavy IIu	UKS. 00.07	6 Z.170	10.0% 0.74%
Centerline Dist. to Barrier:	100.0 feet	Noi	ise Source Elev	ations (in	feet)	
Centerline Dist. to Observer:	100.0 feet		Autos:	2.000		
Barrier Distance to Observer:	0.0 feet	N	Aedium Trucks:	4.000		
Observer Height (Above Pad):	5.0 feet		Heavy Trucks:	8.006	Grade Adju	stment: 0.0
Pad Elevation:	0.0 feet		·	2///	f4)	
Road Elevation:	0.0 feet	Lan	ne Equivalent L		teet)	
Road Grade:	0.0%		Autos:	92.547		
Left View:	-90.0 degrees		Medium Trucks:	92.504		
Right View:	90.0 degrees		Heavy Trucks:	92.547		
FHWA Noise Model Calculation						
VehicleType REMEL			Finite Road	Fresnel	Barrier Atte	
Autos: 68.46		-4.11	-1.20	-4.87		
Medium Trucks: 79.45		-4.11	-1.20	-4.97		
Heavy Trucks: 84.25	-24.28	-4.11	-1.20	-5.16	0.00	0.000
Unmitigated Noise Levels (with						01/5/
VehicleType Leq Peak Ho		Leq Even	,	•	Ldn	CNEL
	0.1 58.2 3.8 52.3		56.4 45.9	50.3 44.4	59.0 52.9	59.6 53.1
	3.8 52.3 4.7 53.2		45.9	44.4 45.4	52.9 53.8	53.1
	1.9 60.2		57.0	52.3	60.9	61.3
Centerline Distance to Noise C	ontour (in feet)	70 dBA	A 65 dE	RΔ	60 dBA	55 dBA
	l dn:	25	53	<i>y</i> /	114	246
	CNFI:	25 26	57		123	264
	CIVEL.	20	57		123	204

	FH\	WA-RD-77-108	HIGH	IWAY	NOISE P	REDICT	ION MO	DEL			
Road Nam	io: Existing W ne: Newport C nt: North of Sa	TR					Name: lumber:		С		
SITE	SPECIFIC IN	IPUT DATA				١	NOISE I	MODE	L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	6,500 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	650 vehicle	s		He	avy Tru	cks (3+ ,	Axles):	15		
Ve	hicle Speed:	45 mph			Vehicle	Miv					
Near/Far La	ne Distance:	76 feet				icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	77.5%		9.69	
Pa	rrier Heiaht:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.39	6 1.84%
Barrier Type (0-W		0.0				Heavy T	rucks:	86.5%	2.7%	10.89	6 0.74%
Centerline Di	. ,	100.0 feet			Noise S	ourco E	lovation	e (in f	oot)		
Centerline Dist.	to Observer:	100.0 feet			NOISE 3	Auto		000	eei)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		000			
Observer Height (	(Above Pad):	5.0 feet				vy Truck		000	Grade Ad	iuetmar	nt: 0.0
P	ad Elevation:	0.0 feet			i icai	y Huck	s. o.	000	Orado Au,	ustrici	n. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 92	547			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 92	504			
	Right View:	90.0 degre	es		Hear	y Truck	s: 92	547			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresi	nel	Barrier Att	en Be	erm Atten
Autos:	68.46	-3.82		-4.	11	-1.20		-4.87	0.0	000	0.000
Medium Trucks:				-4.		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-25.02		-4.	11	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hou			Leq E	ening		Night		Ldn		CNEL
Autos:	59		57.4		55.7		49.0	-	58.2	-	58.8
Medium Trucks:	53		51.6		45.2		43.		52.1		52.4
Heavy Trucks:	53		52.5		43.5		44.		53.1		53.2
Vehicle Noise:	61		59.4		56.3		51.0	6	60.1	1	60.6
Centerline Distan	ce to Noise C	ontour (in feet	)								
			L		dBA		dBA		60 dBA	5	5 dBA
		_	Ldn:		22		17		102		220
		C	NEL:		24		51		109		236

FI	JIM/A D	D-77-108 H	IIC.L	IVA VA V	NOISE DE	PEDICTI	ON MC	DEL			
Scenario: Existing \ Road Name: Newport	Vith Pro		iiGi	IWAI	NOISE PI	Project		NNCP	С		
Road Segment: North of S		ruz				JOD IV	umber.	0211			
SITE SPECIFIC	NPUT	DATA				N	OISE	MODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard =	= 10, Sc	oft = 15)		
Average Daily Traffic (Adt):	5,60	0 vehicles						Autos:	15		
Peak Hour Percentage:	1	0%			Me	dium Tru	ıcks (2	Axles):	15		
Peak Hour Volume:	56	0 vehicles			He	avy Truc	ks (3+	Axles):	15		
Vehicle Speed:	4	5 mph			Vehicle	Mix					
Near/Far Lane Distance:	7	6 feet		İ		icleType		Dav	Evening	Niaht	Daily
Site Data							lutos:	77.5%		9.6%	
Barrier Height:	0	0.0 feet			Me	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	-	0.0			F	leavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100	0.0 feet		-	Noise So			/! #	41		
Centerline Dist. to Observer:	100	0.0 feet		-	Noise S				eet)		
Barrier Distance to Observer:	0	0.0 feet				Autos m Trucks		.000			
Observer Height (Above Pad):	5	i.0 feet				n Trucks vy Trucks		.000	Grade Ad	iustmont	. 0.0
Pad Elevation:	0	0.0 feet			пеач	y Hucks	s. o	.000	Grade Adj	usuncin	. 0.0
Road Elevation:	0	0.0 feet			Lane Eq	uivalent	Distar	ice (in	feet)		
Road Grade:	0	0.0%				Autos	s: 92	.547			
Left View:	-90	0.0 degrees	3			m Trucks		.504			
Right View:	90	0.0 degrees	8		Heav	y Trucks	s: 92	.547			
FHWA Noise Model Calculation	ns										
VehicleType REMEL	Traf	fic Flow	Dis	tance	Finite		Fres	nel	Barrier Att	en Bei	m Atten
Autos: 68.4	-	-4.47		-4.1		-1.20		-4.87		000	0.000
Medium Trucks: 79.4	-	-21.71		-4.1	11	-1.20		-4.97	0.0	000	0.000
Heavy Trucks: 84.2	5	-25.66		-4.1	11	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise Levels (wi		•	arrie								
VehicleType Leq Peak H		Leq Day		Leq E	vening	Leq	Night		Ldn	_	NEL
	8.7	-	6.8		55.0		49.	-	57.6		58.2
	52.4	-	0.9		44.6		43.	-	51.5		51.7
	3.3 30.5	-	1.9 8.8		42.8 55.6		44. 50.	_	52.4 59.5		52.5 59.9
			0		55.0		50.	-	55.0	•	00.0
Centerline Distance to Noise i											
Centerline Distance to Noise				70	dBA	65	dBA	- (	60 dBA	55	dBA
Centerline Distance to Noise		L	dn:		dBA 20		dBA 3	(	60 dBA 92		dBA 199

	FHV	WA-RD-77-108	HIGHW	AY NO	DISE PI	REDICT	ION M	ODEL			
Road Name	o: Existing Wi e: Newport C	TR					t Name Number	: NNCP : 8211	С		
Road Segmen	t: South of Sa	anta Cruz									
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				S	ite Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	6,000 vehicles	3					Autos:			
Peak Hour	Percentage:	10%						Axles):			
Peak H	our Volume:	600 vehicles	3		He	eavy Tru	icks (3+	- Axles):	15		
Vel	nicle Speed:	45 mph		V	ehicle	Mix					
Near/Far Lar	ne Distance:	76 feet			Veh	icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42
Bar	rier Height:	0.0 feet			М	edium 1	rucks:	84.8%	4.9%	10.3%	1.84
Barrier Type (0-Wa		0.0			1	Heavy T	rucks:	86.5%	2.7%	10.8%	0.74
Centerline Dis	t. to Barrier:	100.0 feet		N	oise S	ource E	levatio	ns (in f	eet)		
Centerline Dist. t	o Observer:	100.0 feet		-		Auto		2.000	,		
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Truci	-	4.000			
Observer Height (A	Above Pad):	5.0 feet				vy Truci		3.006	Grade Ad	liustment	: 0.0
Pa	d Elevation:	0.0 feet				•				,	
Roa	d Elevation:	0.0 feet		L	ane Eq			nce (in	feet)		
F	Road Grade:	0.0%				Auto		2.547			
	Left View:	-90.0 degree				m Truci		2.504			
	Right View:	90.0 degree	es		Heav	vy Truci	(s: 9)	2.547			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Distar		Finite	Road	Fre	snel	Barrier Att		m Atter
Autos:	68.46	-4.17		-4.11		-1.20		-4.87		000	0.00
Medium Trucks:	79.45	-21.41		-4.11		-1.20		-4.97		000	0.00
Heavy Trucks:	84.25	-25.36		-4.11		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise											
VehicleType Autos:	Leq Peak Hou		57.1	eq Eve	55.3		Night 49		Ldn 57.5		NEL 58
Medium Trucks:	59		57.1 51.2		55.3 44.9		49		51.5	-	58 52
Heavy Trucks:	52		51.2 52.2		44.9			.4	51.		52 52
Vehicle Noise:	60		59.1		55.9		51		59.		60
Centerline Distanc	e to Noise Co	ontour (in feet	)								
	5	( 1001)		70 dl	ВА	65	dBA	-	60 dBA	55	dBA
			Ldn:	21			45		97	. 2	208

Tuesday, May 29, 2012

FH	WA-RD-77-108 H	IIGHWAY	NOISE P	REDICTION	ON MC	DEL			
Scenario: Existing W	/ith Project			Project I	Vame:	NNCF	C		
Road Name: Newport C	TR			Job Nu	mber:	8211			
Road Segment: North of S	anta Rosa								
SITE SPECIFIC I	NPUT DATA						L INPUT	S	
Highway Data			Site Con	ditions (	Hard :	= 10, S	oft = 15)		
Average Daily Traffic (Adt):	6,500 vehicles					Autos.	15		
Peak Hour Percentage:	10%			dium Tru		,			
Peak Hour Volume:	650 vehicles		He	avy Truci	ks (3+	Axles).	15		
Vehicle Speed:	45 mph		Vehicle	Mix					
Near/Far Lane Distance:	76 feet			icleType		Day	Evening	Night	Daily
Site Data				A	utos:	77.5%		9.6%	97.42%
Barrier Height:	0.0 feet		M	edium Tru	ıcks:	84.89	6 4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0		F	Heavy Tru	ıcks:	86.5%	6 2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet		Noise Sc	ource Ele	vatio	ns (in f	eet)		
Centerline Dist. to Observer:	100.0 feet		710700 01	Autos		.000	001)		
Barrier Distance to Observer:	0.0 feet		Modius	m Trucks	_	.000			
Observer Height (Above Pad):	5.0 feet			v Trucks		.006	Grade Ad	liustment	. 0.0
Pad Elevation:	0.0 feet		ricav	y Trucks.	. 0	.000	0/440 / 14	juotimom	. 0.0
Road Elevation:	0.0 feet		Lane Eq	uivalent	Distar	ice (in	feet)		
Road Grade:	0.0%			Autos.	92	.547			
Left View:	-90.0 degrees		Mediu	m Trucks	: 92	.504			
Right View:	90.0 degrees		Heav	y Trucks	92	.547			
FHWA Noise Model Calculation	าร								
VehicleType REMEL	Traffic Flow	Distance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos: 68.46	-3.82	-4.1	1	-1.20		-4.87	0.0	000	0.000
Medium Trucks: 79.45	-21.06	-4.1	1	-1.20		-4.97	0.0	000	0.000
Heavy Trucks: 84.25	-25.02	-4.1	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise Levels (with	hout Topo and b	arrier atte	nuation)						
VehicleType Leq Peak Ho			vening	Leq N			Ldn		NEL
		7.4	55.7		49.	-	58.	_	58.8
		1.6	45.2		43.		52.		52.4
,		2.5	43.5		44.		53.		53.2
Vehicle Noise: 6	1.2 59	9.4	56.3		51.	6	60.	1	60.6
Centerline Distance to Noise C	Contour (in feet)								
			dBA	65 d			60 dBA		dBA
			22	47			102		20
	CNE	=L: :	24	51			109	2	36

Tuesday, May 29, 2012

	FH	WA-RD-77-108	HIGH	MAY N	IOISE PR	EDICT	ION MC	DEL			
	o: Existing W e: Newport C nt: South of S	TR				.,	Name: lumber:		C		
SITE	SPECIFIC IN	NPUT DATA				Ν	IOISE	MODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard =	: 10, S	oft = 15)		
Average Daily	Traffic (Adt):	9,200 vehicles	S					Autos	: 15		
Peak Hour	Percentage:	10%			Med	dium Tr	ucks (2	Axles)	: 15		
Peak H	our Volume:	920 vehicles	3		Hea	avy Tru	cks (3+	Axles)	: 15		
Ve	hicle Speed:	45 mph		H	Vehicle I	/liv					
Near/Far La	ne Distance:	76 feet		-		cleType		Day	Evening	Night	Daily
Site Data							Autos:	77.59	-	9.69	
Rai	rier Heiaht:	0.0 feet			Ме	dium T	rucks:	84.89	6 4.9%	10.39	6 1.84%
Barrier Type (0-W		0.0			H	leavy T	rucks:	86.5%	6 2.7%	10.89	6 0.74%
Centerline Dis	st. to Barrier:	100.0 feet		H	Noise So	urco F	lovation	e (in t	foot)		
Centerline Dist.	to Observer:	100.0 feet		H	140/36 00	Auto		.000	001)		
Barrier Distance	to Observer:	0.0 feet			Mediur			000			
Observer Height (	Above Pad):	5.0 feet				y Truck		.006	Grade Ad	iustmer	t- 0.0
Pa	ad Elevation:	0.0 feet		L	ricav,	y Truck	3. 0	.000	Orado riaj	dourior	0.0
Roa	ad Elevation:	0.0 feet		L	Lane Equ	ıivalen			feet)		
1	Road Grade:	0.0%				Auto		.547			
	Left View:	-90.0 degree	es		Mediun			.504			
	Right View:	90.0 degree	es		Heav	y Truck	s: 92	.547			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite		Fres		Barrier Att		erm Atten
Autos:	68.46			-4.1		-1.20		-4.87		000	0.000
Medium Trucks:	79.45			-4.1		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-23.51		-4.1	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	r atter	uation)						
VehicleType	Leq Peak Ho		_	Leq E	vening	Leq	Night		Ldn		CNEL
Autos:	60		58.9		57.2		51.		59.7		60.3
Medium Trucks:	-		53.1		46.7		45.	_	53.6		53.9
Heavy Trucks:			54.0		45.0		46.		54.6		54.7
Vehicle Noise:			60.9		57.8		53.	1	61.6	3	62.1
Centerline Distant	ce to Noise C	ontour (in feet,	)					,			
			L		dBA		dBA		60 dBA		5 dBA
			Ldn:		8		60		129		277
		CI	VEL:	3	0	6	64		138		297

	FHW	/A-RD-77-108	HIGHV	WAY N	OISE PI	REDICTI	ON MO	DEL			
Road Nam	io: Existing Wit e: Newport CT nt: South of Sa	R ,				Project Job Ni	Name: umber:		С		
	SPECIFIC IN	PUT DATA				N	OISE I	MODE	L INPUTS	S	
Highway Data				5	Site Con	ditions	Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 1	0,600 vehicles	3					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2 i	Axles):	15		
Peak H	our Volume:	1,060 vehicles	3		He	avy Truc	ks (3+ )	4xles):	15		
Ve	hicle Speed:	45 mph		,	/ehicle	Mix					
Near/Far La	ne Distance:	76 feet		F.		icleType		Day	Evening	Night	Daily
Site Data							utos:	77.5%	-	9.6%	
Par	rier Height:	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0			- 1	Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	. ,	100.0 feet		L							
Centerline Dist.		100.0 feet			Voise S	ource El		•	eet)		
Barrier Distance		0.0 feet				Autos		000			
Observer Height (	Above Pad):	5.0 feet				m Trucks		000			
	ad Elevation:	0.0 feet			Heav	y Trucks	: 8.	006	Grade Adj	ustment.	0.0
Ros	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Distan	ce (in t	feet)		
1	Road Grade:	0.0%				Autos	: 92.	547			
	Left View:	-90.0 degree	es		Mediu	m Trucks	: 92.	504			
	Right View:	90.0 degree			Heav	y Trucks	: 92.	547			
FHWA Noise Mode	el Calculations	i									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresi	nel	Barrier Atte	en Ber	m Atten
Autos:	68.46	-1.70		-4.11		-1.20		-4.87	0.0		0.000
Medium Trucks:	79.45	-18.94		-4.11		-1.20		-4.97	0.0		0.000
Heavy Trucks:	84.25	-22.89		-4.11		-1.20		-5.16	0.0	00	0.000
Unmitigated Noise	•									_	
VehicleType	Leq Peak Hou			Leq Ev		Leq			Ldn		VEL
Autos:	61.		59.5		57.8		51.7		60.4		61.0
Medium Trucks:	55.		53.7		47.3		45.8	-	54.2		54.5
Heavy Trucks: Vehicle Noise:	56. 63.	-	54.6 61.5		45.6 58.4		46.8 53.7		55.2 62.3		55.3 62.7
Centerline Distance	e to Noise Co	ntour (in feet	,								
		( 1001)		70 a	IBA .	65 (	IBA	6	i0 dBA	55	dBA
			Ldn:	30		6	6		141	3	05

	FH'	WA-RD-77-108	HIGHW	VAY N	OISE PI	REDICT	ION MO	DDEL			
	c: Existing W e: Newport C t: North of Sa	TR					Name: lumber:	NNCP 8211	C		
SITE S	SPECIFIC IN	NPUT DATA				١	NOISE	MODE	L INPUT	S	
Highway Data				S	ite Con	ditions	(Hard:	= 10, Sc	oft = 15)		
Average Daily 1	raffic (Adt):	9,200 vehicle	s					Autos:	15		
Peak Hour I	Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15		
Peak Ho	our Volume:	920 vehicle	s		He	avy Tru	cks (3+	Axles):	15		
Vet	nicle Speed:	45 mph		ν	ehicle	Mix					
Near/Far Lar	e Distance:	76 feet		F		icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.429
Bar	rier Heiaht:	0.0 feet			M	edium T	rucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-Wa	all, 1-Berm):	0.0			F	Heavy T	rucks:	86.5%	2.7%	10.8%	0.749
Centerline Dis	t. to Barrier:	100.0 feet		۸	loise So	ource E	levatio	ns (in fe	eet)		
Centerline Dist. t	o Observer:	100.0 feet		_		Auto		.000	/		
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Truck	s: 4	.000			
Observer Height (/		5.0 feet			Heav	y Truck	s: 8	.006	Grade Ad	justment	: 0.0
	d Elevation:	0.0 feet		-							
	d Elevation:	0.0 feet		L	ane Eq	uivalen			reet)		
F	Road Grade:	0.0%				Auto		2.547			
	Left View:	-90.0 degre				m Truck		2.504			
	Right View:	90.0 degre	es		Heav	ry Truck	s: 92	2.547			
FHWA Noise Mode	l Calculation										
VehicleType	REMEL	Traffic Flow	Dista			Road	Fres		Barrier Att		m Atten
Autos:	68.46			-4.11		-1.20		-4.87		000	0.00
Medium Trucks:	79.45			-4.11		-1.20		-4.97		000	0.00
Heavy Trucks:	84.25			-4.11		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise VehicleType	Levels (with Leg Peak Ho			eq Ev		Loa	Night		I dn		NFI
Autos:		).8	58.9	LCY LV	57.2	Ley	rvigrit 51	1	59.	-	60.
Medium Trucks:		1.6	53.1		46.7		45		53.0		53.
Heavy Trucks:	55	5.4	54.0		45.0		46	.2	54.0	6	54.
Vehicle Noise:	62	2.7	60.9		57.8		53	.1	61.	6	62.
Centerline Distanc	e to Noise C	ontour (in feet	)								
			L	70 d	BA	65	dBA	6	0 dBA	55	dBA
			Ldn:	28			60		129	_	277
		0	NFI:	30			34		138		97

Tuesday, May 29, 2012

FH	WA-RD-77-108 HI	GHWAY I	NOISE PF	REDICTIO	N MODEL			
Scenario: Existing W	ith Project			Project N	lame: NNCI	PC		
Road Name: Newport C					mber: 8211			
Road Segment: East of Ne	wport CTR							
SITE SPECIFIC I	NPUT DATA				DISE MOD		S	
Highway Data			Site Con	ditions (F	Hard = 10, S	Soft = 15)		
Average Daily Traffic (Adt):	8,800 vehicles				Autos	: 15		
Peak Hour Percentage:	10%		Me	dium Truc	ks (2 Axles)	): 15		
Peak Hour Volume:	880 vehicles		He	avy Truck	s (3+ Axles,	): 15		
Vehicle Speed:	45 mph	F	Vehicle I	Vix				
Near/Far Lane Distance:	76 feet			icleType	Dav	Evening	Night	Dailv
Site Data					itos: 77.5		9.6%	97.42%
Barrier Height:	0.0 feet		Me	edium Tru	cks: 84.8°	% 4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0		F	leavy Tru	cks: 86.5°	% 2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet	ŀ	Noise Sc	urce Fle	vations (in	feet)		
Centerline Dist. to Observer:	100.0 feet	ŀ		Autos:		1001)		
Barrier Distance to Observer:	0.0 feet		Mediur	n Trucks:				
Observer Height (Above Pad):	5.0 feet			y Trucks:		Grade Ad	liustment:	0.0
Pad Elevation:	0.0 feet	L					,	
Road Elevation:	0.0 feet		Lane Equ	uivalent l	Distance (in	feet)		
Road Grade:	0.0%			Autos:				
Left View:	-90.0 degrees			n Trucks:				
Right View:	90.0 degrees		Heav	y Trucks:	92.547			
FHWA Noise Model Calculation								
VehicleType REMEL		Distance	Finite		Fresnel	Barrier At		m Atten
Autos: 68.46		-4.1		-1.20	-4.87		000	0.000
Medium Trucks: 79.45		-4.1		-1.20	-4.97		000	0.000
Heavy Trucks: 84.25		-4.1		-1.20	-5.16	0.0	000	0.000
Unmitigated Noise Levels (with							1	
VehicleType Leq Peak Ho			vening	Leq N	•	Ldn		VEL
	0.6 58.		57.0		50.9	59.	-	60.1
	4.4 52.	-	46.5		45.0	53.		53.7
,	5.2 53.	_	44.8		46.0	54.		54.5
Vehicle Noise: 6	2.5 60.	/	57.6		52.9	61.	4	61.9
Centerline Distance to Noise C	ontour (in feet)	70	dD A	ee d	D.A	en ana	EE	AD A
Centerline Distance to Noise C	, ,		dBA	65 dl		60 dBA		dBA
Centerline Distance to Noise C	contour (in feet) Ldr CNFI	n: 2	dBA 27 29	65 di 58		60 dBA 125 134	2	dBA 69 89

	FH\	WA-RD-77-108	HIGH	WAY I	NOISE PF	REDICT	ION MC	DEL			
Road Nam	o: Existing W e: Newport C nt: South of N		rcle			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Name: lumber:		C		
SITE S	SPECIFIC IN	IPUT DATA				N	NOISE	MODE	EL INPUT	S	
Highway Data					Site Con	ditions	(Hard =	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	12,900 vehicle	S					Autos	: 15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles)	: 15		
Peak H	our Volume:	1,290 vehicle	3		Hei	avy Tru	cks (3+	Axles)	: 15		
Vei	hicle Speed:	45 mph		H	Vehicle I	Mix					
Near/Far Lai	ne Distance:	76 feet		H		cleType	,	Day	Evening	Night	Daily
Site Data							Autos:	77.59	6 12.9%	9.69	6 97.42%
Rai	rier Heiaht:	0.0 feet			Me	edium T	rucks:	84.89	6 4.9%	10.39	6 1.84%
Barrier Type (0-W		0.0			F	łeavy T	rucks:	86.59	6 2.7%	10.89	6 0.74%
Centerline Dis	st. to Barrier:	100.0 feet		ŀ	Noise Sc	urce F	lovation	ne (in i	foot)		
Centerline Dist.	to Observer:	100.0 feet		H	NOISE SC	Auto		.000	eei)		
Barrier Distance	to Observer:	0.0 feet			Modium	n Truck		.000			
Observer Height (.	Above Pad):	5.0 feet				y Truck		.006	Grade Ad	iuetmar	rt- 0.0
Pa	ad Elevation:	0.0 feet		L	11Cav	y much	3. 0	.000	0/440 / (4)	dourior	0.0
Roa	ad Elevation:	0.0 feet		L	Lane Equ	uivalen	t Distar	ice (in	feet)		
F	Road Grade:	0.0%				Auto	s: 92	.547			
	Left View:	-90.0 degree	es		Mediur	n Truck	s: 92	.504			
	Right View:	90.0 degree	es		Heav	y Truck	s: 92	.547			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Be	erm Atten
Autos:	68.46			-4.1		-1.20		-4.87		000	0.000
Medium Trucks:	79.45			-4.1		-1.20		-4.97	0.0		0.000
Heavy Trucks:	84.25	-22.04		-4.1	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atter	nuation)						
,,	Leq Peak Hou			Leq E	vening	Leq	Night		Ldn		CNEL
Autos:	62		60.4		58.6		52.		61.2	-	61.8
Medium Trucks:	56		54.5		48.2		46.	-	55.1		55.3
Heavy Trucks:	56		55.5		46.4		47.		56.0		56.2
Vehicle Noise:	64	1.1	62.4		59.2		54.	6	63.1	l	63.6
Centerline Distance	ce to Noise Co	ontour (in feet	)								
					dBA		dBA		60 dBA		5 dBA
			Ldn:		35		75		161		347
		CI	VEL:	3	37	8	30		173		372

	FHW	/A-RD-77-108	HIGHW	AY NOISE	PRED	ICTION M	ODEL	_		
Road Nam	o: Existing Wit e: Santa Rosa nt: North of Sar	•				ject Name. b Number.		С		
SITE S	SPECIFIC IN	PUT DATA				NOISE	MODE	L INPUTS	3	
Highway Data				Site C	onditio	ons (Hard	= 10, Sc	oft = 15)		
	Traffic (Adt): Percentage: lour Volume:	3,800 vehicles 10% 380 vehicles				n Trucks (2 Trucks (3+	/	15 15 15		
Vei	hicle Speed:	45 mph		Vehic	le Mix					
Near/Far Lai	ne Distance:	52 feet			ehicle1	ype	Day	Evening	Night	Daily
Site Data  Bar  Barrier Type (0-W	rier Height:	0.0 feet 0.0				Autos: m Trucks: ry Trucks:	77.5% 84.8% 86.5%	4.9%	9.6% 10.3% 10.8%	1.84%
Centerline Dis		100.0 feet		Maios	Caura	e Elevatio	no (in f	2041		
Centerline Dist. Barrier Distance Observer Height (	to Observer:	100.0 feet 0.0 feet 5.0 feet 0.0 feet		Mei		utos: 2 ucks: 4	2.000 1.000 3.006	Grade Adj	ustmeni	: 0.0
	ad Elevation:	0.0 feet		Lane	Equiva	lent Dista	nce (in	feet)		
ľ	Road Grade: Left View: Right View:	0.0% -90.0 degree 90.0 degree			dium Tr eavy Tr	ucks: 96	6.607 6.566 6.608			
FHWA Noise Mode	el Calculations	;								
VehicleType	REMEL	Traffic Flow	Distar	nce Fir	ite Roa	d Fres	inel	Barrier Atte	en Be	m Atten
Autos:	68.46	-6.15		-4.39	-1.	20	-4.87	0.0	100	0.00
Medium Trucks:	79.45	-23.39		-4.39	-1.		-4.97	0.0		0.00
Heavy Trucks:	84.25	-27.35		-4.39	-1.	20	-5.16	0.0	100	0.000
Unmitigated Noise									1	
VehicleType	Leq Peak Hou			eq Evening		.eq Night		Ldn	_	NEL
Autos:	56.		54.8	-	3.0	47		55.6		56.
Medium Trucks:	50.		49.0		2.6	41		49.5		49.
Heavy Trucks: Vehicle Noise:	51. 58.		49.9 56.8		).9 3.7	42		50.5 57.5		50. 58.
				3.		43		57.0	•	50.
Centerline Distanc	e to Noise Co	ntour (in reet,		70 dBA		65 dBA	1 6	SO dBA	55	dBA
			l dn:	15		32		68		147
			IEL:	16		34		73		158

	FHWA-	RD-77-108 H	IIGHWAY	NOISE PI	REDICTI	ON MOI	DEL					
Scenario: Existing With Project Road Name: Newport CTR Road Segment: North of Coast Highway				Project Name: NNCPC Job Number: 8211								
	ECIFIC INPU	T DATA						L INPUT	S			
Highway Data				Site Con	ditions	(Hard =	10, Sc	ft = 15)				
Average Daily Tra	ffic (Adt): 14,9	00 vehicles		Autos: 15								
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15							
Peak Hour	Volume: 1,4	90 vehicles		Heavy Trucks (3+ Axles): 15								
Vehicl	le Speed:	45 mph		Vehicle	Mix							
Near/Far Lane I	Distance:	76 feet		Veh	icleType		Day	Evening	Night	Daily		
Site Data					Α	utos:	77.5%	12.9%	9.6%	97.42%		
Rarrie	r Height:	0.0 feet		M	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%		
Barrier Type (0-Wall,		0.0		F	Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%		
Centerline Dist. to	o Barrier: 10	00.0 feet		Noise So	urce Fl	ovation	e (in fe	of)				
Centerline Dist. to 0	Observer: 10	0.0 feet		740/30 00	Autos		000	.01)				
Barrier Distance to 0	Observer:	0.0 feet		Madiu	m Trucks		000					
Observer Height (Abo	ove Pad):	5.0 feet			y Trucks		006	Grade Ad	iustment	0.0		
Pad E	Elevation:	0.0 feet							dourione	0.0		
Road E	Elevation:	0.0 feet		Lane Eq	uivalent	Distanc	ce (in t	eet)				
Roa	ad Grade:	0.0%			Autos		547					
L	Left View: -9	0.0 degrees	;	Mediu	m Trucks							
Ri	ight View: 9	0.0 degrees		Heav	y Trucks	: 92.	547					
FHWA Noise Model C												
		affic Flow	Distance		Road	Fresn		Barrier Att		m Atten		
Autos:	68.46	-0.22	-4.		-1.20		-4.87		000	0.000		
Medium Trucks:	79.45	-17.46	-4.		-1.20		-4.97		000	0.000		
Heavy Trucks:	84.25	-21.41	-4.	11	-1.20		-5.16	0.0	000	0.000		
Unmitigated Noise Le												
	q Peak Hour	Leq Day		Evening	Leq I	Vight 53.2		Ldn		NEL		
Autos:			1.0	59.3				61.8		62.4		
Medium Trucks:				48.8		47.3		55.7 56.7		56.0		
Heavy Trucks:	57.5			47.1		48.3				56.8		
Vehicle Noise:	64.8	-	3.0	59.9		55.2	!	63.7	7	64.2		
Centerline Distance t	to Noise Conto	our (in feet)										

Ldn: CNEL:

Tuesday, May 29, 2012

	FHV	VA-RD-77-108	HIGHW	AY N	OISE PF	REDICTION	ON MOD	EL					
Scenario: Existing With Project					Project Name: NNCPC								
Road Name: Santa Rosa Road Segment: South of San Joaquin Hills						Job Ni	ımber: 8	211					
Road Segment: S	south of Sa	in Joaquin Hills											
	CIFIC IN	PUT DATA			NOISE MODEL INPUTS								
Highway Data				S	Site Conditions (Hard = 10, Soft = 15)								
Average Daily Traffic (Adt): 14,500 vehicles						Autos: 15							
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15								
Peak Hour	Volume:	1,450 vehicles	5		He	avy Truc	ks (3+ A)	xles):	15				
Vehicle	Speed:	45 mph		v	/ehicle l	Miv							
Near/Far Lane D	istance:	52 feet		-		icleType	1	Dav	Evening	Night	Daily		
Site Data					V C//			7.5%		9.6%			
					M	edium Tr		4.8%		10.3%	1.84%		
	Height:	0.0 feet 0.0				Heavy Tr		6.5%		10.8%	0.74%		
Barrier Type (0-Wall, 1	,									10.070	0.7 170		
Centerline Dist. to Barrier: 100.0 feet				٨	Noise Source Elevations (in feet)								
Centerline Dist. to Observer: 100.0 feet Barrier Distance to Observer: 0.0 feet					Autos: 2.000								
					Medium Trucks: 4.000								
Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0								
Road Elevation: 0.0 feet				,	Lane Equivalent Distance (in feet)								
				F	Autos: 96.607								
					Medium Trucks: 96.566								
Left View: -90.0 degrees Right View: 90.0 degrees					Heavy Trucks: 96.608								
709	in view.	50.0 degree	:5		77047	y maono	. 00.0	00					
FHWA Noise Model Ca	alculations	S											
VehicleType R	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresnel		Barrier Att	en Ber	Berm Atten		
Autos:	68.46	-0.34		-4.39	)	-1.20	-	4.87	0.000		0.000		
Medium Trucks:	Medium Trucks: 79.45			-4.39	)	-1.20 -4.		4.97	.97 0.000		0.000		
Heavy Trucks: 84.25		-21.53	-21.53 -4		39 -1.20 -6			5.16 0.000 0.00			0.000		
Unmitigated Noise Le	vels (with	out Topo and	barrier	atteni	uation)								
	Peak Hou			Leq Evening		Leq Night		Ldn		C	CNEL		
Autos:	62.	.5	30.6	58.9		52.8			61.4		62.0		
Medium Trucks: 56.3		.3 .5	54.8		48.4 46.9		55.3		3	55.6			
Heavy Trucks: 57.1		.1 .5	55.7		46.7 4		47.9	56.3		3	56.4		
Vehicle Noise: 64.4		.4 (	62.6		59.5	54.8			63.3		63.8		
Centerline Distance to	Noise Co	ntour (in feet)	)										
	7			70 d	) dBA 65 dBA		IBA	BA 60 dBA		55 dBA			
			Ldn:	36		7			167	3	60		
			IFI:	39			3		179		86		

Tuesday, May 29, 2012 Tuesday, May 29, 2012

Average Daily Traffic (Adt): 12,200 vehicles   Peak Hour Percentage: 10%   Peak Hour Volume: 1,220 vehicles   Vehicle Speed: 45 mph   Near/Far Lane Distance: 52 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Near/Far Lane Distance: 52 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Daily   Vehicle Mix   Vehicle Type   Day   Evening   Night   Daily   National Trucks: 48.8%   4.9%   9.0%   9.5%	FH	WA-RD-77-108	B HIGH	WAY	NOISE P	REDICT	ION MO	DEL			
Site Conditions (Hard = 10, Soft = 15)   Autos: 15   Autos: 15   Peak Hour Percentage: 10%   Peak Hour Volume: Vehicle Speed: 45 mph   Vehicle Type   Day   Evening   Night   Daily   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Night   Daily   Night   Daily   Night   Daily   Night   Daily   Night   Daily   Night	Road Name: Santa Ros	sa ,							С		
Average Daily Traffic (Adt): 12,200 vehicles   Peak Hour Percentage: 10%   Peak Hour Volume: 1,220 vehicles   Vehicle Speed: 45 mph   Near/Far Lane Distance: 52 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Near/Far Lane Distance: 52 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Daily   Vehicle Mix   Vehicle Type   Day   Evening   Night   Daily   National Trucks: 48.8%   4.9%   9.0%   9.5%	SITE SPECIFIC I	NPUT DATA				١	NOISE N	MODE	L INPUT	5	
Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15   Heavy Trucks (3+ Axles): 15	Highway Data				Site Cor	ditions	(Hard =	10, S	oft = 15)		
Peak Hour Volume: 1,220 vehicles	Average Daily Traffic (Adt):	12,200 vehicle	es					Autos:	15		
Vehicle Speed: Near/Far Lane Distance: 52 feet         Vehicle Mix         Vehicle Mix         Vehicle Mix         Vehicle Mix         Vehicle Mix         Vehicle Type         Day         Evening         Night         Daily           Site Data         Autos: 77.5% 12.9% 9.6% 9.742%         9.742%         Modium Trucks: 14.8% 4.9% 9.0% 9.742%         Modium Trucks: 84.8% 4.9% 10.3% 13.8%         Heavy Trucks: 86.5% 2.7% 10.8% 10.8% 10.3%         1.74%           Centerline Dist. to Observer: 100.0 feet         Centerline Dist. to Observer: 100.0 feet         Noise Source Elevations (in feet)           Pad Elevation: 0.0 feet         Autos: 2.000         Medium Trucks: 8.006 Grade Adjustment: 0.0         Heavy Trucks: 8.006 Grade Adjustment: 0.0         Heavy Trucks: 96.607         Medium Trucks: 96.607         Medium Trucks: 96.608         FFIWA Noise Model Calculations         Vehicle Type REMEL Traffic Flow Distance Finite Road Fresul Barrier Atten Barrier A	Peak Hour Percentage:	10%			Me	dium Tr	ucks (2 )	4xles):	15		
Near/Far Lane   Distance:   52 feet   VehicleType   Day   Evening   Night   Daily	Peak Hour Volume:	1,220 vehicle	es		He	avy Tru	cks (3+ )	4xles):	15		
Near/Far Lane Distance:   52 feet   VehicleType   Day   Evening   Night   Daily	Vehicle Speed:	45 mph		-	Vehicle	Mix					
Site Data	Near/Far Lane Distance:	52 feet		1			9	Dav	Evenina	Niaht	Dailv
Barrier Type (0-Well, 1-Berm): 0.0 feet   Centerline Dist. to Observer: 0.0.0 feet   Centerline Dist. to Observer: 100.0 feet   Autos: 2.000   Centerline Dist. to Observer: 0.0 feet   Autos: 2.000   Centerline Distance to Observer: 0.0 feet   Autos: 2.000   Centerline Distance to Observer: 0.0 feet   Autos: 2.000   Centerline Distance (in feet)   Centerline Distance (in	Site Data										
Barrier Type (0-Wall, 1-Berm): 0.0   Centerline Dist. to Dasrrier: 100.0   feet	Parrier Height	0.0 foot			М	edium T	rucks:	84.8%	4.9%	10.39	% 1.84%
Noise Source Elevations (in feet)						Heavy T	rucks:	86.5%	2.7%	10.89	% 0.74%
Centerline Dist. to Observer   100.0   feet   Barrier Distance to Observer   100.0   feet   Barrier Distance to Observer   100.0   feet   Medium Trucks:   4.000   Medium		100.0 feet		-	Maina C	auraa E	lovotion	o (in f	0.041		
Barrier Distance to Observer: 0.0 feet   Medium Trucks: 4.000   Grade Adjustment: 0.0 feet   Heavy Trucks: 8.006   Grade Adjustment: 0.0 feet   Heavy Trucks: 8.006   Grade Adjustment: 0.0 feet   Lane Equivalent Distance (in feet)	Centerline Dist. to Observer:	100.0 feet		1	Noise 3				eet)		
Diserver Height (Above Pad):	Barrier Distance to Observer:	0.0 feet			Modiu						
Pad Elevation:   0.0 feet	Observer Height (Above Pad):	5.0 feet							Grado Ad	iuctmo	nt: 0.0
Road Grade:	Pad Elevation:	0.0 feet			пеа	ry Truck	S. O.	006	Grade Adj	usune	и. О.О
Left View:	Road Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)		
Fight View: 90.0 degrees   Heavy Trucks: 96.608     Fight View: 90.0 degrees   Heavy Trucks: 96.608     Fight View: 90.0 degrees   Heavy Trucks: 96.608     Fight View: 90.0 degrees    Road Grade:	0.0%				Auto	s: 96.	607				
FHWA Noise Model Calculations   VehicleType   REMEL   Traffic Flow   Distance   Finite Road   Fresnel   Barrier Atten   Berm Atten	Left View:	-90.0 degre	ees		Mediu	m Truck	s: 96.	566			
VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Berm Atten           Autos:         68.46         -1.09         -4.39         -1.20         -4.87         0.000         0.000           Medium Trucks:         79.45         -18.33         -4.39         -1.20         -4.97         0.000         0.000           Unmitigated Noise- Levels (without Topo and barrier attenuation)         VehicleType         Leq Peak Hour         Leq Peak Hour         Leq Peak Hour         Leq Evening         Leq Night         Ldn         CNEL           Autos:         61.8         59.9         58.1         52.1         60.7         61.3           Medium Trucks:         56.5         54.0         47.7         46.1         54.6         54.8           Heavy Trucks:         56.4         55.0         45.9         47.2         55.5         55.5         55.7           Vehicle Noise:         63.6         61.9         58.7         54.0         62.6         63.0	Right View:	90.0 degre	ees		Hear	y Truck	s: 96.	608			
Autos: 68.46											
Medium Trucks:         79.45         -18.33         -4.39         -1.20         -4.97         0.000         0.000           Heavy Trucks:         84.25         -22.28         -4.39         -1.20         -5.16         0.000         0.000           Unmitigated Noise Levels (without Topo and barrier attenuation)         Vehicle Type         Leq Peak Hour         Leq Dey         Leq Evening         Leq Night         Ldn         CNEL           Autos:         61.8         59.9         58.1         52.1         60.7         61.3           Medium Trucks:         55.5         54.0         47.7         46.1         54.6         54.8           Heavy Trucks:         56.4         55.0         45.9         47.2         55.5         55.7           Vehicle Noise:         63.6         61.9         58.7         54.0         62.6         63.0           Centerline Distance to Noise Contour (in feet)							Fresi				
Heavy Trucks: 84.25											
Unmitigated Noise Levels (without Topo and barrier attenuation)           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         61.8         59.9         88.1         52.1         60.7         61.3           Medium Trucks:         55.5         54.0         47.7         46.1         54.6         54.8           Heavy Trucks:         56.4         55.0         45.9         47.2         55.5         55.7           Vehicle Noise:         63.6         61.9         58.7         54.0         62.6         63.0           Centerline Distance to Noise Contour (in feet)											
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         61.8         59.9         58.1         52.1         60.7         61.3           Medium Trucks:         55.5         54.0         47.7         46.1         54.6         54.6           Heavy Trucks:         56.4         55.0         45.9         47.2         55.5         58.7           Vehicle Noise:         63.6         61.9         58.7         54.0         62.6         63.0           Centerline Distance to Noise Contour (in feet)						-1.20		-5.16	0.0	100	0.000
Autos:         61.8         59.9         58.1         52.1         60.7         61.3           Medium Trucks:         55.5         54.0         47.7         46.1         54.6         54.8           Heavy Trucks:         56.4         55.0         45.9         47.2         55.5         55.5           Vehicle Noise:         63.6         61.9         58.7         54.0         62.6         63.0           Centerline Distance to Noise Contour (in feet)											
Medium Trucks:         55.5         54.0         47.7         46.1         54.6         54.8           Heavy Trucks:         56.4         55.0         45.9         47.2         55.5         55.7           Vehicle Noise:         63.6         61.9         58.7         54.0         62.6         63.0           Centerline Distance to Noise Contour (in feet)			,	Leq E		Leq					
Heavy Trucks:         56.4         55.0         45.9         47.2         55.5         55.7           Vehicle Noise:         63.6         61.9         58.7         54.0         62.6         63.0           Centerline Distance to Noise Contour (in feet)											
Vehicle Noise:         63.6         61.9         58.7         54.0         62.6         63.0           Centerline Distance to Noise Contour (in feet)											
Centerline Distance to Noise Contour (in feet)			00.0								
					58.7		54.0	,	62.0	)	63.0
	Cernerline Distance to Noise C	ontour (in fee	ı)	70	dDA	65	AD A		60 dBA	6	i5 dBA
I dn: 32 69 149 320			I dn:					<u> </u>			
CNEL: 34 74 160 344		С									

	FHV	VA-RD-77-108	HIGHW.	AY NOISE	PREDICT	ON MOD	EL			
Scenari	io: Existing Wit	th Project			Project	Name: N	INCPO			
Road Nam	e: Avocado				Job N	umber: 8	211			
Road Segmen	nt: North of Sa	n Miguel								
SITE	SPECIFIC IN	PUT DATA						_ INPUTS	S	
Highway Data				Site C	onditions	(Hard = 1	0, So	ft = 15)		
Average Daily	Traffic (Adt):	4,200 vehicles	3			Α	utos:	15		
Peak Hour	Percentage:	10%			Medium Tr	icks (2 A	kles):	15		
Peak H	lour Volume:	420 vehicles	3		Heavy Tru	cks (3+ A)	kles):	15		
Ve	hicle Speed:	40 mph		Vehic	le Mix					
Near/Far La	ne Distance:	36 feet			ehicleTvpe		Dav	Evening	Niaht	Daily
Site Data					,	Autos: 7	7.5%	12.9%	9.6%	
Rai	rrier Height:	0.0 feet			Medium T	rucks: 8	4.8%	4.9%	10.3%	1.849
Barrier Type (0-W		0.0			Heavy T	rucks: 8	6.5%	2.7%	10.8%	0.749
Centerline Dis	st. to Barrier:	100.0 feet		Noise	Source E	lovations	(in fo	ot)		
Centerline Dist.	to Observer:	100.0 feet		140136	Auto.		_	et)		
Barrier Distance	to Observer:	0.0 feet			Auto dium Truck					
Observer Height (	Above Pad):	5.0 feet						Grade Adj	i rotmon	
Pa	ad Elevation:	0.0 feet		H	eavy Truck	s: 8.0	Ub	Grade Auj	usunen	. 0.0
Ros	ad Elevation:	0.0 feet		Lane	Equivalen	Distance	e (in f	eet)		
1	Road Grade:	0.0%			Auto	s: 98.4	12			
	Left View:	-90.0 degree	es	Me	dium Truck	s: 98.3	72			
	Right View:	90.0 degree	es	Н	eavy Truck	s: 98.4	13			
FHWA Noise Mode	el Calculations	5								
VehicleType	REMEL	Traffic Flow	Distar	nce Fir	ite Road	Fresne	e/ I	Barrier Atte	en Be	rm Atten
Autos:	66.51	-5.21		-4.51	-1.20	-	4.87	0.0	100	0.00
Medium Trucks:	77.72	-22.45		-4.51	-1.20	-	4.97	0.0	100	0.00
Heavy Trucks:	82.99	-26.40		-4.51	-1.20	-	5.16	0.0	00	0.00
Unmitigated Noise	e Levels (with	out Topo and	barrier a	attenuatio	n)					
VehicleType	Leq Peak Hou	r Leq Day	Le	eq Evening	l Leq	Night		Ldn	С	NEL
Autos:	55.	-	53.7	-	.9	45.9		54.5		55.
Medium Trucks:	49.	.6	48.1	4	.7	40.1		48.6		48.
Heavy Trucks:	50.		49.5		).4	41.7		50.0		50.
Vehicle Noise:	57.	.6	55.9	52	2.6	48.0		56.6	i	57
Centerline Distand	ce to Noise Co	ntour (in feet,	)							
				70 dBA	65	dBA	6	0 dBA	55	dBA
			Ldn:	13	2	7		59		127

Scenario: Existing Wi Road Name: Santa Rosa Road Segment: South of No	ista Desciona		AT NO	ISE PI	REDICT	ION MOI	DEL			
SITE SPECIFIC IN	a					Name: I lumber: I		C		
	NPUT DATA				N	IOISE N	/ODE	L INPUT	S	
Highway Data			Si	te Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily Traffic (Adt): Peak Hour Percentage:	6,800 vehicle	s		Me	dium Tr	ucks (2 A	Autos:	15 15		
Peak Hour Volume:	680 vehicle	s				cks (3+ A	,	15		
Vehicle Speed:	45 mph	-					,			
Near/Far Lane Distance:	52 feet		Ve	<b>hicle</b> I Veh	<b>иих</b> icleТуре	,	Day	Evening	Night	Daily
Site Data						Autos:	77.5%	12.9%	9.6%	97.429
Barrier Height:	0.0 feet			M	edium T	rucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-Wall, 1-Berm):	0.0			F	leavy T	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet		No	oise So	ource E	levation	s (in fe	eet)		
Centerline Dist. to Observer:	100.0 feet				Auto	s: 2.0	000			
Barrier Distance to Observer:	0.0 feet			Mediu	n Truck	s: 4.0	000			
Observer Height (Above Pad): Pad Elevation:	5.0 feet 0.0 feet			Heav	y Truck	s: 8.0	006	Grade Ad	iustment	0.0
Road Flevation:	0.0 feet		Lá	ne Ea	uivalen	t Distanc	e (in	feet)		
Road Grade:	0.0%				Auto			,		
I eft View:	-90.0 degree	es		Mediu	n Truck	s: 96.	566			
Right View:	90.0 degree			Heav	y Truck	s: 96.0	808			
FHWA Noise Model Calculation	ıs									
VehicleType REMEL	Traffic Flow	Distar	nce	Finite	Road	Fresn	el	Barrier Att	en Bei	m Atten
Autos: 68.46			-4.39		-1.20		-4.87		000	0.00
Medium Trucks: 79.45			-4.39		-1.20		-4.97		000	0.00
Heavy Trucks: 84.25			-4.39		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise Levels (with			eq Eve		Leq	Night		Ldn		NEL
Unmitigated Noise Levels (with VehicleType Leq Peak Hote						40.5				
Unmitigated Noise Levels (with VehicleType Leq Peak Hot Autos: 59	9.2	57.3		55.6		49.5		58.1		
Unmitigated Noise Levels (with VehicleType   Leq Peak Hot Autos: 59 Medium Trucks: 53	9.2 3.0	57.3 51.5		45.1		43.6		52.0	)	52.
Unmitigated Noise Levels (with VehicleType   Leq Peak Hot Autos: 59 Medium Trucks: 53 Heavy Trucks: 53	9.2 3.0 3.8	57.3							)	52. 53.
Unmitigated Noise Levels (with VehicleType Leq Peak Hot Autos: 59 Medium Trucks: 53 Heavy Trucks: 53 Vehicle Noise: 61	3.2 3.0 3.8	57.3 51.5 52.4 59.3		45.1 43.4		43.6 44.6		52.0 53.0	)	52. 53.
Unmitigated Noise Levels (with VehicleType   Leq Peak Hot Autos: 59 Medium Trucks: 53 Heavy Trucks: 53	9.2 3.0 3.8 1.1 ontour (in feet	57.3 51.5 52.4 59.3	70 dE	45.1 43.4 56.2		43.6 44.6 51.5	1	52.0 53.0 60.0	55	58. 52.: 53. 60.:
Unmitigated Noise Levels (with VehicleType Leq Peak Hot Autos: 59 Medium Trucks: 53 Heavy Trucks: 53 Vehicle Noise: 61	9.2 3.0 3.8 1.1 ontour (in feet	57.3 51.5 52.4 59.3	70 dE 22 23	45.1 43.4 56.2	4	43.6 44.6 51.5	1	52.0 53.0 60.0	55	52. 53. 60.

Tuesday, May 29, 2012

FI	WA-RD-77-108 HI	GHWAY I	NOISE PE	REDICTIO	N MODEL			
Scenario: Existing V	Vith Project			Project N	lame: NNC	PC		
Road Name: Avocado				Job Nui	nber: 8211			
Road Segment: South of S	San Miguel							
SITE SPECIFIC I	NPUT DATA					EL INPUT	S	
Highway Data			Site Con	ditions (F	lard = 10,	Soft = 15)		
Average Daily Traffic (Adt):	13,100 vehicles				Auto	s: 15		
Peak Hour Percentage:	10%		Me	dium Truc	ks (2 Axles	:): 15		
Peak Hour Volume:	1,310 vehicles		He	avy Truck	s (3+ Axles	:): 15		
Vehicle Speed:	40 mph		Vehicle I	Mix				
Near/Far Lane Distance:	36 feet	Ī	Veh	icleType	Day	Evening	Night	Daily
Site Data				AL	itos: 77.5	% 12.9%	9.6%	97.42%
Barrier Height:	0.0 feet		Me	edium Tru	cks: 84.8	% 4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0		F	leavy Tru	cks: 86.5	% 2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet	-	Noise So	ource Ele	vations (in	feet)		
Centerline Dist. to Observer:	100.0 feet			Autos:	2.000	,		
Barrier Distance to Observer:	0.0 feet		Mediu	n Trucks:				
Observer Height (Above Pad):	5.0 feet			v Trucks:	8.006	Grade Ad	liustment	0.0
Pad Elevation:	0.0 feet			,			,	
Road Elevation:	0.0 feet	-	Lane Eq		Distance (ii	n feet)		
Road Grade:	0.0%			Autos:	98.412			
Left View:	-90.0 degrees			n Trucks:	98.372			
Right View:	90.0 degrees		Heav	y Trucks:	98.413			
FHWA Noise Model Calculatio								
VehicleType REMEL		Distance		Road	Fresnel	Barrier At		m Atten
Autos: 66.5		-4.5		-1.20	-4.8		000	0.000
Medium Trucks: 77.73		-4.5		-1.20	-4.9		000	0.000
Heavy Trucks: 82.9	9 -21.46	-4.5	1	-1.20	-5.1	6 0.	000	0.000
Unmitigated Noise Levels (wit								
VehicleType Leq Peak Ho			vening	Leq N	•	Ldn		VEL
	0.5 58.	-	56.9		50.8	59.		60.0
	4.5 53. 5.8 54.	-	46.6 45.4		45.1 46.6	53. 55.	-	53.8 55.1
	5.8 54. 2.5 60.		45.4 57.5		53.0	55. 61.	-	62.0
		.0	57.5		53.0	61.	<b>0</b>	v2.0
Centerline Distance to Noise (	contour (in feet)	70	dBA	65 dl	24	60 dBA	FF	dBA
		70	UDA	00 01	J/1	UU UDA	33	UDA
	I di	n. 0	7	50		126	2	72
	Ldi CNFI	-	27	59 63		126 135	_	72 91

Tuesday, May 29, 2012

	FH\	WA-RD-77-108	HIGH	IWAY I	NOISE P	REDICT	ION MC	DEL			
Road Nan	nio: Existing W ne: Avocado ent: North of Co	,					! Name: lumber:		С		
SITE	SPECIFIC IN	IPUT DATA				١	NOISE	MODE	L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	: 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	9,200 vehicle	S					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	Hour Volume:	920 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Ve	ehicle Speed:	40 mph		-	Vehicle	Miv					
Near/Far La	ne Distance:	36 feet				icleType	9	Dav	Evening	Niaht	Daily
Site Data							Autos:	77.5%		9.6%	
D-	rrier Heiaht:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-V		0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%
,, ,	ist, to Barrier:	100.0 feet		-	M-1 0			- /! #	41		
Centerline Dist.	to Observer:	100.0 feet		-	Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet			14-46	Auto m Truck		.000			
Observer Height	(Above Pad):	5.0 feet						.000	Crada Ad	ī, io 4 mo n	4.00
P	ad Elevation:	0.0 feet			Heal	y Truck	S: 8.	000	Grade Ad	usunen	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 98	.412			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 98	.372			
	Right View:	90.0 degre	es		Hear	y Truck	s: 98	.413			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	66.51	-1.80		-4.5	51	-1.20		-4.87	0.0	000	0.000
Medium Trucks:				-4.5		-1.20		-4.97		000	0.000
Heavy Trucks:	82.99	-23.00		-4.5	51	-1.20		-5.16	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	er attei	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		NEL
Autos:			57.1		55.3		49.	-	57.9		58.5
Medium Trucks:			51.5		45.1		43.	5	52.0		52.2
Heavy Trucks:			52.9		43.8		45.		53.4		53.6
Vehicle Noise:	61	.0	59.3		56.0		51.	4	60.0	)	60.4
Centerline Distan	ce to Noise C	ontour (in feet	)					,		,	
			L		dBA		dBA	(	60 dBA		i dBA
			Ldn:	_	21		46		100		215
		C	NEL:	2	23		50		107	:	230

	FHW	A-RD-77-108	HIGH	WAY	NOISE P	REDICTI	ON MO	DEL			
Road Nam	o: Existing With e: Macarthur nt: South of Bor	,					Name: umber:		C		
	SPECIFIC INF	PUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 6°	1,500 vehicles	3					Autos:	15		
	Percentage:	10%				edium Tru		/	15		
Peak H	our Volume: 6	3,150 vehicles	3		He	eavy Truc	ks (3+ /	Axles):	15		
Ve	hicle Speed:	45 mph			Vehicle	Mix					
Near/Far La	ne Distance:	76 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						- /	lutos:	77.5%	12.9%	9.6%	97.42%
Rai	rier Height:	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0				Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	st. to Barrier:	100.0 feet			Noise S	ourco El	ovation	c (in fo	not)		
Centerline Dist.	to Observer:	100.0 feet			Noise 3	Auto:		000	et)		
Barrier Distance	to Observer:	0.0 feet			A de elle	Autos m Trucks		000			
Observer Height (	Above Pad):	5.0 feet				vy Trucks		000	Grade Ad	iuetmont	. 0.0
Pa	ad Elevation:	0.0 feet			пеа	y mucks	s. o.	006	Orade Adj	astricin	. 0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalent	Distan	ce (in t	feet)		
ı	Road Grade:	0.0%				Autos	s: 92.	547			
	Left View:	-90.0 degree	es			m Trucks		504			
	Right View:	90.0 degree	es		Hear	y Trucks	s: 92.	547			
FHWA Noise Mode	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresr	nel	Barrier Att	en Bei	m Atten
Autos:	68.46	5.94		-4.	11	-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45	-11.30		-4.	11	-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-15.26		-4.	11	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (witho	ut Topo and	barrie	r atte	nuation)						
VehicleType	Leq Peak Hour			Leq E	Evening	,	Night		Ldn		NEL
Autos:	69.1		67.2		65.4		59.4		68.0		68.6
Medium Trucks:	62.8		61.3		55.0		53.4		61.9		62.1
Heavy Trucks: Vehicle Noise:	63.7 70.9		62.3 69.2		53.2 66.0		54.5 61.3		62.8 69.9		63.0 70.3
		*			00.0		01.3	,	09.8	7	70.0
Centerline Distant	ce to Noise Cor	ntour (in feet,	)	70	dBA	65	dBA	-	i0 dBA	55	dBA
			l dn:		98		12 12		456		183
			VFI:		105	_	77		490		055
		Ci	VLL.		100	24			730	1,	000

	FHV	WA-RD-77-108	HIGHWA	Y NOISE	PREDICT	ION MO	DEL			
	o: Existing Wi e: Macarthur nt: North of Bo	,				Name: umber:				
SITE S	SPECIFIC IN	IPUT DATA			١	IOISE I	MODE	L INPUT	S	
Highway Data				Site Co	onditions	(Hard =	10, Sc	ft = 15)		
Average Daily	Traffic (Adt):	72,900 vehicle	s				Autos:	15		
Peak Hour	Percentage:	10%		٨	1edium Tr	ucks (2 )	4xles):	15		
Peak H	our Volume:	7,290 vehicle	s	F	leavy Tru	cks (3+ )	Axles):	15		
Vel	hicle Speed:	45 mph		Vehicle	n Mix					
Near/Far Lar	ne Distance:	76 feet			ehicleType		Day	Evening	Night	Daily
Site Data					,	Autos:	77.5%	12.9%	9.6%	97.429
Bar	rier Height:	0.0 feet			Medium T	rucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-Wa		0.0			Heavy T	rucks:	86.5%	2.7%	10.8%	0.749
Centerline Dis	st. to Barrier:	100.0 feet		Noise	Source E	levation	s (in fe	et)		
Centerline Dist. t	to Observer:	100.0 feet			Auto		000	/		
Barrier Distance t	to Observer:	0.0 feet		Med	ium Truck		000			
Observer Height (/	Above Pad):	5.0 feet			avy Truck		006	Grade Ad	iustment	0.0
Pa	ad Elevation:	0.0 feet								
Roa	ad Elevation:	0.0 feet		Lane E	quivalen			eet)		
F	Road Grade:	0.0%			Auto		547			
	Left View:	-90.0 degree			ium Truck		504			
	Right View:	90.0 degree	es	He	avy Truck	s: 92.	547			
FHWA Noise Mode	el Calculation	s								
VehicleType	REMEL	Traffic Flow	Distan	ce Fini	te Road	Fresi	nel	Barrier Att	en Ber	m Atten
Autos:	68.46	6.68		-4.11	-1.20		-4.87		000	0.00
Medium Trucks:	79.45	-10.56		-4.11	-1.20		-4.97		000	0.00
Heavy Trucks:	84.25	-14.52		-4.11	-1.20		-5.16	0.0	000	0.00
Unmitigated Noise										
	Leq Peak Hou			q Evening		Night		Ldn		NEL
Autos:	69		67.9	66.	_	60.1		68.7		69.
Medium Trucks:	63		62.1	55.		54.2		62.6		62.
Heavy Trucks:  Vehicle Noise:	64 71		63.0 69.9	54. 66.		55.2 62.1		63.6 70.6		63. 71.
VOLIDIO I VOISE.	71	**		00.		02.	•	, 0.0		, 1.
Contorlino Distant	o to Noice Co									
Centerline Distanc	ce to Noise Co	ontour (in feet		70 dBA	65	dBA	6	0 dBA	55	dBA
Centerline Distanc	ce to Noise Co	,	Ldn:	70 dBA 110		dBA 37	6	0 dBA 511		<i>dBA</i> 101

Tuesday, May 29, 2012

FHV	/A-RD-77-108 HIG	HWAY I	NOISE PI	REDICTIO	N MODE	L	
Scenario: Existing Wit	h Project			Project N	lame: NN	CPC	
Road Name: Macarthur				Job Nu	mber: 821	1	
Road Segment: North of Sai	n Joaquin Hills						
SITE SPECIFIC IN	PUT DATA					DEL INPUT	S
Highway Data			Site Cor	iditions (	Hard = 10,	Soft = 15)	
Average Daily Traffic (Adt): 6					Aut		
Peak Hour Percentage:	10%				cks (2 Axle	-/	
Peak Hour Volume:	6,150 vehicles		He	avy Truck	is (3+ Axle	s): 15	
Vehicle Speed:	45 mph	ŀ	Vehicle	Mix			
Near/Far Lane Distance:	76 feet	l	Veh	icleType	Da	y Evening	Night Daily
Site Data				A	itos: 77.	5% 12.9%	9.6% 97.42%
Barrier Height:	0.0 feet		М	edium Tru	cks: 84.	8% 4.9%	10.3% 1.84%
Barrier Type (0-Wall, 1-Berm):	0.0			Heavy Tru	icks: 86.	5% 2.7%	10.8% 0.74%
Centerline Dist. to Barrier:	100.0 feet	-	Noise S	ource Ele	vations (i	n feet)	
Centerline Dist. to Observer:	100.0 feet	ŀ		Autos			
Barrier Distance to Observer:	0.0 feet		Mediu	m Trucks			
Observer Height (Above Pad):	5.0 feet			vy Trucks:			ljustment: 0.0
Pad Elevation:	0.0 feet	L		*			,
Road Elevation:	0.0 feet	L	Lane Eq		Distance (		
Road Grade:	0.0%			Autos:			
Left View:	-90.0 degrees		Mediu	m Trucks.			
Right View:	90.0 degrees		Heav	y Trucks:	92.547		
FHWA Noise Model Calculations	;						
VehicleType REMEL	Traffic Flow D	istance	Finite	Road	Fresnel	Barrier At	ten Berm Atten
Autos: 68.46	5.94	-4.1	1	-1.20	-4.6	87 0.	0.000
Medium Trucks: 79.45	-11.30	-4.1	1	-1.20	-4.	97 0.	0.000
Heavy Trucks: 84.25	-15.26	-4.1	1	-1.20	-5.	16 0.	0.000
Unmitigated Noise Levels (with	out Topo and barr	ier atter	nuation)				
VehicleType Leq Peak Hou	r Leq Day	Leq E	vening	Leg N	light	Ldn	CNEL
Autos: 69.			65.4		59.4	68.	
Medium Trucks: 62.			55.0		53.4	61.	
Heavy Trucks: 63.			53.2		54.5	62.	
Vehicle Noise: 70.	9 69.2		66.0		61.3	69.	9 70.3
Centerline Distance to Noise Co	ntour (in feet)						
			dBA	65 d		60 dBA	55 dBA
	Ldn:		8	21:	_	456	983
	CNEL:	1	05	22	7	490	1,055

Tuesday, May 29, 2012

	FH\	WA-RD-77-108	HIGHV	VAY N	IOISE PR	EDICT	ION MO	DDEL			
Road Nam	o: Existing W e: Macarthur nt: South of Sa	ith Project an Joaquin Hills				Project Job N	Name: lumber:		C		
SITE S	SPECIFIC IN	IPUT DATA				Ν	IOISE	MODE	L INPUT	S	
Highway Data					Site Cond	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	38,800 vehicles	3					Autos:	15		
Peak Hour	Percentage:	10%			Med	dium Tr	ucks (2	Axles).	15		
Peak H	our Volume:	3,880 vehicles	3		Hea	avy Tru	cks (3+	Axles).	15		
Vei	hicle Speed:	45 mph		H	Vehicle N	Nix					
Near/Far Lai	ne Distance:	76 feet				cleType	,	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	6 12.9%	9.69	6 97.42%
Rai	rier Height:	0.0 feet			Me	dium T	rucks:	84.8%	4.9%	10.39	6 1.84%
Barrier Type (0-W		0.0			Н	leavy T	rucks:	86.5%	6 2.7%	10.89	6 0.74%
Centerline Dis	st. to Barrier:	100.0 feet			Noise So	urco F	lovatio	ne (in f	inat)		
Centerline Dist.	to Observer:	100.0 feet		H.	140/36 00	Auto		2.000	<i>cci)</i>		
Barrier Distance	to Observer:	0.0 feet			Mediun			1.000			
Observer Height (.	Above Pad):	5.0 feet				/ Truck		3.006	Grade Ad	liustmer	t: 0.0
	ad Elevation:	0.0 feet		L						,	
	ad Elevation:	0.0 feet			Lane Equ				feet)		
F	Road Grade:	0.0%				Auto		2.547			
	Left View:	-90.0 degree			Mediun			2.504			
	Right View:	90.0 degree	es		Heav	/ Truck	s: 92	2.547			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dista		Finite I		Fres		Barrier At		erm Atten
Autos:	68.46	3.94		-4.1		-1.20		-4.87		000	0.000
Medium Trucks:	79.45			-4.1		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-17.26		-4.1	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise											
	Leq Peak Hou			Leq E	vening	Leq	Night		Ldn		CNEL
Autos:	67		65.2		63.4		57		66.	-	66.6
Medium Trucks:	60		59.3		53.0		51		59.	-	60.1
Heavy Trucks:	61		60.3		51.2		52		60.		61.0
Vehicle Noise:	68		67.2		64.0		59	.3	67.	9	68.3
Centerline Distance	ce to Noise C	ontour (in feet,	)								
					dBA		dBA		60 dBA	5	5 dBA
			Ldn:		2		56		336		723
		CI	IEL:	7	8	1	67		360		776

	FH\	WA-RD-77-108	HIGHW.	AY NO	ISE PI	REDICTIO	N MOI	DEL			
	io: Existing Wi	th Project				Project N			С		
	e: Macarthur					Job Nu	mber: 1	3211			
Road Segme	nt: South of Sa	an Miguel									
SITE	SPECIFIC IN	IPUT DATA				NO	DISE N	10DE	L INPUTS	3	
Highway Data				Sit	te Con	ditions (l	lard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	28,600 vehicle	3				,	Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Truc	ks (2 A	xles):	15		
Peak H	lour Volume:	2,860 vehicle	3		He	avy Truck	s (3+ A	xles):	15		
Ve	hicle Speed:	45 mph		Ve	hicle	Miv					
Near/Far La	ne Distance:	76 feet		Ve		icleTvpe		Dav	Evening	Niaht	Daily
Site Data						,,		77.5%	Ü	9.6%	
Pa	rrier Height:	0.0 feet			Me	edium Tru	cks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-W		0.0			F	Heavy Tru	cks:	86.5%	2.7%	10.8%	0.749
Centerline Di	. ,	100.0 feet		Ma	ioo C	ource Ele	rotio n	/in fe	2041		
Centerline Dist.	to Observer:	100.0 feet		NC	nse so				ei)		
Barrier Distance	to Observer:	0.0 feet				Autos:		000			
Observer Height	(Above Pad):	5.0 feet				m Trucks:		000	O		
P	ad Elevation:	0.0 feet			Heav	y Trucks:	8.0	006	Grade Adj	usunen	. 0.0
Ro	ad Elevation:	0.0 feet		La	ne Eq	uivalent l	Distand	e (in t	eet)		
	Road Grade:	0.0%				Autos:	92.	547			
	Left View:	-90.0 degree	es		Mediu	m Trucks:	92.	504			
	Right View:	90.0 degree	es		Heav	y Trucks:	92.	547			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Distar	псе	Finite	Road	Fresn	el	Barrier Atte	en Be	rm Atten
Autos:	68.46	2.61		-4.11		-1.20		4.87	0.0	100	0.00
Medium Trucks:	79.45	-14.63		-4.11		-1.20		-4.97	0.0	00	0.00
Heavy Trucks:	84.25	-18.58		-4.11		-1.20		-5.16	0.0	00	0.00
Unmitigated Nois	e Levels (with	out Topo and	barrier a	attenua	ation)						
VehicleType	Leq Peak Hou	ır Leq Day	Le	eq Eve	ning	Leq N	ight		Ldn	C	NEL
Autos:	65	.8	63.9		62.1		56.0		64.7	,	65.
Medium Trucks:	59	.5	58.0		51.6		50.1		58.6	;	58.
Heavy Trucks:	60	.4	58.9		49.9		51.1		59.5	;	59.
Vehicle Noise:	67	.6	65.9		62.7		58.0		66.6	i	67.
Centerline Distan	ce to Noise Co	ontour (in feet	)								
			1	70 dB	A	65 d	RA.	6	i0 dBA	5.5	dBA
								,			
			Ldn: VFI:	59 63		127	7		274		590 633

	FHV	VA-RD-77-108	HIGHV	VAY NO	DISE PI	REDICT	ION MO	DEL			
Road Name	o: Existing Wir e: Macarthur at: North of Sa	•					t Name: lumber:		С		
SITE S	SPECIFIC IN	PUT DATA				1	NOISE N	ИODE	L INPUT:	S	
Highway Data				S	ite Cor	ditions	(Hard =	10, S	oft = 15)		
	Traffic (Adt): 3 Percentage: our Volume:	34,800 vehicle 10% 3,480 vehicle					ucks (2 ) cks (3+ )	,	15		
Vel	nicle Speed:	45 mph		V	ehicle	Miv					
Near/Far Lar	ne Distance:	76 feet		F.		icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	77.5%			97.42%
Par	rier Height:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wa	all, 1-Berm):	0.0			-	Heavy T	rucks:	86.5%	2.7%	10.8%	0.749
Centerline Dis		100.0 feet		N	oise S	ource E	levation	s (in f	eet)		
Centerline Dist. t		100.0 feet				Auto	s: 2.	000			
Barrier Distance t		0.0 feet			Mediu	m Truck	s: 4.	000			
Observer Height (	Above Pad): d Elevation:	5.0 feet 0.0 feet			Heav	y Truck	s: 8.	006	Grade Adj	iustment	: 0.0
	d Elevation:	0.0 feet			ano Fr	uivələn	t Distan	ro (in	foot)		
	u ⊑ievalion. Road Grade:	0.0%		-	ште Еч	Auto		547	icci)		
,	l eft View:	-90.0 degre			Modiu	m Truck		504			
	Right View:	90.0 degre				y Truck		547			
FHWA Noise Mode	l Calculations	5									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresr	nel .	Barrier Att	en Ber	m Atten
Autos:	68.46	3.46		-4.11		-1.20		-4.87	0.0	000	0.00
Medium Trucks:	79.45	-13.77		-4.11		-1.20		-4.97	0.0	000	0.00
Heavy Trucks:	84.25	-17.73		-4.11		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise	Levels (with	out Topo and	barrier	attenu	ation)						
VehicleType	Leq Peak Hou	r Leq Daj	/ 1	Leq Eve	ening	Leq	Night		Ldn	C	NEL
Autos:	66.	.6	64.7		62.9		56.9	)	65.5	5	66.
Medium Trucks:	60.	.4	58.9		52.5		51.0	)	59.4	1	59.
Heavy Trucks:	61.	.2	59.8		50.8		52.0	)	60.4	1	60.
Vehicle Noise:	68	.4	66.7		63.6		58.9	)	67.4	1	67.
Centerline Distance	e to Noise Co	ntour (in feet	)								
				70 dE		65	dBA	(	60 dBA		dBA
			Ldn: NEL:	67 72			45 55		312 335		73

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	FHW	/A-RD-77-108	HIGH	NAY N	OISE PI	REDICTION	ON M	ODEL			
Scenario: Exis	ting Witl	h Project				Project I	Name	: NNCF	c		
Road Name: Mac		•				Job Nu					
Road Segment: Nort	th of Coa	ast Highway									
SITE SPECI	FIC IN	PUT DATA							L INPUT	S	
Highway Data				5	Site Con	ditions (	Hard	= 10, S	oft = 15)		
Average Daily Traffic (	(Adt): 2	8,700 vehicles	3					Autos.	15		
Peak Hour Percen	tage:	10%			Me	dium Tru	cks (2	Axles).	15		
Peak Hour Vol	ume:	2,870 vehicles	3		He	avy Truc	ks (3+	- Axles).	15		
Vehicle Sp		45 mph		١	/ehicle	Wix					
Near/Far Lane Dista	ance:	76 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data						Α	utos:	77.5%	12.9%	9.6%	97.42%
Barrier He	iaht.	0.0 feet			M	edium Tru	ucks:	84.89	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-B		0.0			F	leavy Tro	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Ba	arrier:	100.0 feet		,	Voise So	ource Ele	evatio	ns (in f	eet)		
Centerline Dist. to Obse	erver:	100.0 feet		F		Autos		2.000	/		
Barrier Distance to Obse	erver:	0.0 feet			Mediu	n Trucks		4.000			
Observer Height (Above I	Pad):	5.0 feet				y Trucks		3.006	Grade Ad	liustment.	0.0
Pad Eleva	ation:	0.0 feet								,	
Road Eleva	ation:	0.0 feet		L	.ane Eq	uivalent			feet)		
Road G	rade:	0.0%				Autos		2.547			
	View:	-90.0 degree	es			n Trucks		2.504			
Right	View:	90.0 degree	es		Heav	y Trucks	: 9:	2.547			
FHWA Noise Model Calcu	ulations	;									
VehicleType REN		Traffic Flow	Dist	ance		Road	Fre	snel	Barrier At	ten Ber	m Atten
Autos:	68.46	2.63		-4.11	1	-1.20		-4.87	0.	000	0.000
Medium Trucks:	79.45	-14.61		-4.11	l	-1.20		-4.97	0.	000	0.000
Heavy Trucks:	84.25	-18.57		-4.11		-1.20		-5.16	0.	000	0.000
Unmitigated Noise Level								_			
	eak Hour			Leq Ev		Leq N			Ldn		VEL
Autos:	65.8	-	63.9		62.1		56		64.		65.3
Medium Trucks:	59.		58.0		51.7		50		58.		58.8
Heavy Trucks:	60.4		59.0		49.9		51		59.	-	59.6
Vehicle Noise:	67.0	•	65.9		62.7		58	3.0	66.	6	67.0
Centerline Distance to N	oise Co	ntour (in feet)	)								
			L	70 d		65 d			60 dBA		dBA
			Ldn: IFI :	59 63	-	12 13			275 295	-	92 35

	FH	WA-RD-77-108	HIGHV	NAY I	NOISE PI	REDICT	ION MO	DEL			
Road Nam	no: Existing W ne: Eastbluff/F nt: West of Ja	ord/Bonita Cyn	ı				Name: lumber:		С		
	SPECIFIC IN	NPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	14,400 vehicle	S					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2 /	Axles):	15		
Peak H	lour Volume:	1,440 vehicle	s		He	avy Tru	cks (3+ /	Axles):	15		
Ve	hicle Speed:	45 mph		ŀ	Vehicle	Mix					
Near/Far La	ne Distance:	52 feet		H		icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6	% 97.42%
Ra	rrier Heiaht:	0.0 feet			M	edium T	rucks:	84.8%	4.9%	10.3	% 1.84%
Barrier Type (0-W		0.0			1	Heavy T	rucks:	86.5%	2.7%	10.8	% 0.74%
Centerline Di	st. to Barrier:	100.0 feet		ŀ	Noise S	nurce F	levation	s (in fi	pet)		
Centerline Dist.	to Observer:	100.0 feet		ŀ	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Auto		000	301)		
Barrier Distance	to Observer:	0.0 feet			Madiu	m Truck		000			
Observer Height	(Above Pad):	5.0 feet				vy Truck		006	Grade Ad	iustme	nt: 0.0
P	ad Elevation:	0.0 feet		L							
Ro	ad Elevation:	0.0 feet		L	Lane Eq	uivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto		607			
	Left View:	-90.0 degre	es			m Truck		566			
	Right View:	90.0 degre	es		Heav	y Truck	s: 96.	608			
FHWA Noise Mod	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresr	nel	Barrier Att	en B	erm Atten
Autos:				-4.3	-	-1.20		-4.87	0.0	000	0.000
Medium Trucks:				-4.3		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-21.56		-4.3	39	-1.20		-5.16	0.0	000	0.000
Unmitigated Nois			barrier	r attei	nuation)						
VehicleType	Leq Peak Ho			Leq E	vening	Leq	Night		Ldn	1	CNEL
Autos:	62		60.6		58.8		52.8		61.4		62.0
Medium Trucks:			54.7		48.4		46.8		55.3		55.5
Heavy Trucks:			55.7		46.6		47.9		56.2		56.4
Vehicle Noise:			62.6		59.4		54.8	3	63.3	3	63.8
Centerline Distan	ce to Noise C	ontour (in feet	:)								
			L		dBA		dBA	(	60 dBA	5	i5 dBA
		_	Ldn:	-	36		77		166		358
		C	NEL:	3	38	8	33		178		384

	FHV	WA-RD-77-108	HIGHWA	Y NOISE P	REDICTIO	N MOD	EL			
Scenari	o: Existing Wi	th Project			Project N	lame: N	INCP(	С		
		ord/Bonita Cyn			Job Nur	nber: 8	211			
Road Segmen	nt: West of Bo	nita Canyon								
SITE S	SPECIFIC IN	IPUT DATA			NC	ISE M	ODE	L INPUTS	S	
Highway Data				Site Co	nditions (F	lard = 1	10, So	oft = 15)		
Average Daily	Traffic (Adt):	10,000 vehicles	8			Α	utos:	15		
Peak Hour	Percentage:	10%		Me	edium Truc	ks (2 A	kles):	15		
Peak H	our Volume:	1,000 vehicles	S	He	eavy Truck	s (3+ A)	kles):	15		
Vel	hicle Speed:	45 mph		Vehicle	Miv					
Near/Far Lar	ne Distance:	52 feet			nicleTvpe	-	Dav	Evenina	Niaht	Dailv
Site Data				***	,,		7.5%	. 5	9.6%	. ,
D		0.0 feet		- N	ledium Trui	cks: 8	4.8%	4.9%	10.3%	
Barrier Type (0-W	rier Height:	0.0 reet 0.0			Heavy Tru	cks: 8	6.5%	2.7%	10.8%	6 0.749
Centerline Dis	. ,	100.0 feet			,					
Centerline Dist.		100.0 feet		Noise S	ource Elev	vations	(in fe	eet)		
Barrier Distance		0.0 feet			Autos:	2.0	00			
Observer Height (		5.0 feet		Mediu	m Trucks:	4.0	00			
	ad Flevation:	0.0 feet		Hea	vy Trucks:	8.0	06	Grade Adj	iustmen	t: 0.0
	d Elevation:	0.0 feet		I ane Fo	uivalent E	Distanc	e (in f	feet)		
	Road Grade:	0.0%		Zuno Zu	Autos:	96.6		001)		
,	Left View:	-90.0 degree	00	Medii	m Trucks:	96.5				
	Right View:	90.0 degree			vy Trucks:	96.6				
	3		,,,		,					
FHWA Noise Mode			51.4	1		_		D : 4"	1.0	***
VehicleType	REMEL	Traffic Flow	Distanc		Road	Fresne		Barrier Atte		rm Atten
Autos: Medium Trucks:	68.46 79.45	-1.95		4.39 4.39	-1.20 -1.20		4.87 4.97	0.0		0.00
		-19.19		4.39 4.39	-1.20 -1.20			0.0		0.000
Heavy Trucks:	84.25	-23.15			-1.20		5.16	0.0	000	0.00
Unmitigated Noise	•			,	1					
	Leq Peak Hou			q Evening	Leq Ni	•		Ldn		CNEL
Autos:	60		59.0	57.3		51.2		59.8		60.
Medium Trucks:	54		53.2	46.8		45.3		53.7		53.9
Heavy Trucks:	55		54.1	45.1		46.3		54.7		54.
Vehicle Noise:	62	7	61.0	57.9	1	53.2		61.7	′	62.
Centerline Distanc	e to Noise Co	ontour (in feet,		70 -104	05.5	24	_	0 -ID4	-	T -/D 4
				70 dBA	65 dE	3A	6	i0 dBA		5 dBA
			Ldn:	28	60			130		281
		CI	VEL:	30	65			140		301

	FHW	A-RD-77-108	HIGH	WAY NO	OISE PI	REDICT	ION MO	DEL			
Road Name	o: Existing With e: Eastbluff/Fo nt: East of Jami	rd/Bonita Cyn					Name: lumber:		С		
SITE S	SPECIFIC IN	PUT DATA				N	IOISE I	MODE	L INPUT	S	
Highway Data				S	ite Cor	nditions	(Hard =	: 10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 1 Percentage:	1,500 vehicle 10%	S		Ma	edium Tr		Autos:			
		1.150 vehicle				eavy Tru		,			
	hicle Speed:	45 mph	3				UNO (OT	naica).	10		
Near/Far Lar		52 feet		V	ehicle!						
	ic Distance.	32 ICCI			Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	77.5%		9.6%	
Bar	rier Height:	0.0 feet				edium T		84.8%		10.3%	
Barrier Type (0-Wa	all, 1-Berm):	0.0			-	Heavy T	rucks:	86.5%	2.7%	10.8%	0.74
Centerline Dis	t. to Barrier:	100.0 feet		Ν	loise S	ource E	levation	s (in f	eet)		
Centerline Dist. t	to Observer:	100.0 feet				Auto		000	,		
Barrier Distance t	to Observer:	0.0 feet			Mediu	m Truck	s: 4.	000			
Observer Height (	Above Pad):	5.0 feet			Heav	v Truck	s: 8.	006	Grade Ad	iustment	: 0.0
Pa	d Elevation:	0.0 feet				,					
Roa	d Elevation:	0.0 feet		L	ane Eq	uivalen			feet)		
F	Road Grade:	0.0%				Auto		.607			
	Left View:	-90.0 degre				m Truck		.566			
	Right View:	90.0 degre	es		Heav	vy Truck	s: 96	.608			
FHWA Noise Mode										1	
VehicleType	REMEL	Traffic Flow	Dista			Road	Fresi		Barrier Att		m Atte
Autos:	68.46	-1.34		-4.39		-1.20		-4.87		000	0.0
Medium Trucks:	79.45	-18.58		-4.39		-1.20		-4.97		000	0.0
Heavy Trucks:	84.25	-22.54		-4.39		-1.20		-5.16	0.0	000	0.0
Unmitigated Noise VehicleType	Levels (witho Leg Peak Hour			attenu Leg Eve		Lea	Night	1	Ldn	-	NEL
Autos:	61.5		59.6	-54 LV	57.9	,	51.i	R	60.4		61
Medium Trucks:	55.3		53.8		47.4		45.5	-	54.		54
Heavy Trucks:	56.	-	54.7		45.7		46.	-	55.3	-	55
Vehicle Noise:	63.4		61.6		58.5		53.	-	62.		62
Centerline Distanc	e to Noise Co	ntour (in feet	)								
				70 di	BA	65	dBA	- (	60 dBA	55	dBA
			I dn:	31			~		143		808
			Lan: NEL:	31			66 71		143	٠	000

Tuesday, May 29, 2012

	HWA	-RD-77-108 i	HIGHWAY	NOISE P	REDICTION	ON M	ODEL			
Scenario: Existing	With	Project			Project i	Name.	NNCF	c		
Road Name: Eastblu					Job Nu	ımber.	8211			
Road Segment: East of	Bonita	Canyon								
SITE SPECIFIC	INP	UT DATA						L INPUT	S	
Highway Data				Site Con	ditions (	Hard	= 10, S	oft = 15)		
Average Daily Traffic (Adi	: 37,	700 vehicles					Autos	15		
Peak Hour Percentag	E:	10%			dium Tru		,			
Peak Hour Volum	: 3,	770 vehicles		He	avy Truc	ks (3+	Axles)	15		
Vehicle Spee	t:	45 mph		Vehicle	Mix					
Near/Far Lane Distance	e:	52 feet			icleType		Day	Evening	Night	Daily
Site Data					Α	utos:	77.5%		9.6%	97.42%
Barrier Heigh	۴.	0.0 feet		M	edium Tr	ıcks:	84.89	6 4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm		0.0		ŀ	Heavy Tr	ucks:	86.5%	6 2.7%	10.8%	0.74%
Centerline Dist. to Barrie	r: 1	00.0 feet		Noise So	ource Fle	vatio	ns (in t	eet)		
Centerline Dist. to Observe	r: 1	00.0 feet		110,00 01	Autos		2.000	001)		
Barrier Distance to Observe	r:	0.0 feet		Modius	m Trucks		1.000			
Observer Height (Above Pac	):	5.0 feet			vy Trucks		3.006	Grade Ad	liustment	. 0.0
Pad Elevatio	n:	0.0 feet		77001	y mucho		5.000		,	
Road Elevatio	n:	0.0 feet		Lane Eq	uivalent	Dista	nce (in	feet)		
Road Grad	e:	0.0%			Autos		6.607			
Left Vie	/: -	-90.0 degrees	S		m Trucks		5.566			
Right Vie	/:	90.0 degrees	S	Heav	y Trucks	: 96	6.608			
FHWA Noise Model Calculat	ions			1						
VehicleType REMEL	T	raffic Flow	Distance	Finite	Road	Fres	snel	Barrier Att	en Ber	m Atten
Autos: 68	46	3.81	-4.	.39	-1.20		-4.87	0.0	000	0.000
Medium Trucks: 79	45	-13.43	-4	.39	-1.20		-4.97	0.0	000	0.000
Heavy Trucks: 84	25	-17.38	-4.	.39	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise Levels (v	ithou	t Topo and b	arrier atte	enuation)						
VehicleType Leq Peak		Leq Day		Evening	Leq I	_		Ldn		NEL
Autos:	66.7	-	4.8	63.0		57		65.0	-	66.2
Medium Trucks:	60.4	-	8.9	52.6		51		59.	-	59.7
Heavy Trucks:	61.3	-	9.9	50.8		52		60.4		60.6
Vehicle Noise:	68.5	6	6.8	63.6		58	.9	67.	5	67.9
Centerline Distance to Noise	Cont	tour (in feet)							,	
				) dBA	65 c			60 dBA		dBA
		L	dn:	68	14	6		316	6	80
		CN		73	15			338		29

Tuesday, May 29, 2012

	FH\	WA-RD-77-108	HIGH	WAY	NOISE P	REDICT	ION MO	DEL			
Road Nam	io: Existing W ne: San Joaqu nt: West of Ja	in Hills					Name: lumber:		С		
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	: 10, S	oft = 15)		
Average Daily	Traffic (Adt):	4,800 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2 .	Axles):	15		
Peak H	lour Volume:	480 vehicle	:S		He	avy Tru	cks (3+ i	Axles):	15		
Ve	hicle Speed:	45 mph			Vehicle	Mix					
Near/Far La	ne Distance:	76 feet				icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	77.5%		9.69	
Ra	rrier Heiaht:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.39	6 1.84%
Barrier Type (0-W		0.0				Heavy T	rucks:	86.5%	2.7%	10.89	6 0.74%
Centerline Di	st. to Barrier:	100.0 feet			Noise S	ource F	levation	e (in f	oot)		
Centerline Dist.	to Observer:	100.0 feet			140/36 0	Auto		000	ccij		
Barrier Distance	to Observer:	0.0 feet			Madiu	m Truck		000			
Observer Height (	(Above Pad):	5.0 feet				vy Truck		006	Grade Ad	iustmer	nt: 0.0
P	ad Elevation:	0.0 feet				•				uoumon	n. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 92	547			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 92.	504			
	Right View:	90.0 degre	es		Hear	y Truck	s: 92	547			
FHWA Noise Mod	el Calculation	IS									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresi	nel	Barrier Att	en Be	erm Atten
Autos:	68.46			-4.	11	-1.20		-4.87	0.0	000	0.000
Medium Trucks:				-4.		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-26.33		-4.	11	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise			barrie	er atte	nuation)						
VehicleType	Leq Peak Hot			Leq E	vening		Night		Ldn		CNEL
Autos:	58		56.1		54.3		48.3	-	56.9	-	57.5
Medium Trucks:		1.8	50.3		43.9		42.3	-	50.8	-	51.0
Heavy Trucks:		2.6	51.2		42.1		43.4		51.8		51.9
Vehicle Noise:		9.8	58.1		55.0		50.3	3	58.8	3	59.3
Centerline Distan	ce to Noise C	ontour (in fee	t)	70			10.4				= :D.4
			Late		dBA		dBA		60 dBA	5	5 dBA
		_	Ldn:		18		39		83		180
		C	NEL:		19	4	12		89		193

Tuesday, May 29, 2012

	FH\	VA-RD-77-108	HIGH	WAY N	IOISE PI	REDICTI	ON MC	DEL			
Road Nam	no: Existing Wine: San Joaqui	n Hills				Project Job N	Name: umber:		С		
SITE	SPECIFIC IN	IPUT DATA				N	OISE	MODE	L INPUTS	3	
Highway Data					Site Con	ditions	(Hard =	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	22,000 vehicles	S					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles):	15		
Peak H	lour Volume:	2,200 vehicles	3		He	avy Truc	ks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		-	Vehicle	Miv					
Near/Far La	ne Distance:	76 feet		-		icleType		Dav	Evening	Night	Daily
Site Data					Veri		utos:	77.5%	Ü	9.6%	,
				-	M	edium Tı		84.8%		10.3%	
	rrier Height:	0.0 feet 0.0				Heavv Tr		86.5%		10.8%	
Barrier Type (0-W Centerline Di		0.0 100.0 feet				,				10.070	0.7 17
Centerline Dist.		100.0 feet			Noise S	ource El	evatior	ıs (in fe	eet)		
Barrier Distance		0.0 feet				Autos	: 2	.000			
Observer Height		5.0 feet			Mediu	m Trucks	3: 4	.000			
	ad Elevation:	0.0 feet			Heav	y Trucks	8: 8	.006	Grade Adj	ustment	: 0.0
	ad Elevation: ad Flevation:	0.0 feet		F	Lane Eq	uivalent	Distar	ce (in	feet)		
	Road Grade:	0.0%		-		Autos		.547	,		
	Left View:	-90.0 degree	ae .		Mediu	m Trucks	: 92	.504			
	Right View:	90.0 degree			Heav	y Trucks	3: 92	.547			
FHWA Noise Mod	el Calculation	S									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Atte	en Ber	m Atten
Autos:	68.46	1.47		-4.1	1	-1.20		-4.87	0.0	100	0.00
Medium Trucks:	79.45	-15.77		-4.1	1	-1.20		-4.97	0.0	00	0.00
Heavy Trucks:	84.25	-19.72		-4.1	1	-1.20		-5.16	0.0	00	0.000
Unmitigated Nois											
VehicleType	Leq Peak Hou	.,.,		Leq E	vening		Night		Ldn		NEL
Autos:	64		62.7		61.0		54.		63.5		64.
Medium Trucks:			56.9		50.5		49.	-	57.4		57.
Heavy Trucks: Vehicle Noise:			57.8 64.7		48.8 61.6		50. 56.		58.4 65.4		58.5 65.5
Centerline Distan					01.0			-			
Contentine Distant	55 to 110/36 O	Jui (iii ieet)	<u> </u>	70	dBA	65	dBA	6	60 dBA	55	dBA
			Ldn:	5	0	10	)7		230	4	196
		CI	VEL:	5	3	11	15		247	5	32

	FH\	WA-RD-77-108	HIGH	WAY N	IOISE PI	REDICT	ION M	DDEL			
	o: Existing Wi						Name.	NNCP	С		
Road Segmen						JOD IV	iumber	0211			
						-	10105			_	
Highway Data	SPECIFIC IN	IPUT DATA			Site Cor				L INPUT oft = 15)	5	
	T	47.000	_	,	Site Cor	iuiuons	(I Iai u	Autos:			
Average Daily	I raпіс (Aat): Percentage:	17,900 venicie 10%	S		1.40	dium Tr	ualea (2				
	our Volume:	1.790 vehicle				avy Tru		,			
	hicle Speed:	45 mph	5				UNG (UT	Axico).	10		
Near/Far Lar		76 feet		_ '	Vehicle						
	io Diotarioo.	70 1001			Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	77.5%		9.6%	
	rier Height:	0.0 feet				edium T. Heavv T.		84.8%		10.3%	
Barrier Type (0-Wa		0.0			,	Heavy I	rucks:	86.5%	2.1%	10.8%	0.74
Centerline Dis		100.0 feet		I	Noise S	ource E	levatio	ns (in f	eet)		
Centerline Dist. t		100.0 feet				Auto	s: 2	2.000			
Barrier Distance t		0.0 feet			Mediu	m Truck	'S: 4	1.000			
Observer Height (	Above Paa): ad Flevation:	5.0 feet 0.0 feet			Heav	y Truck	s: 8	3.006	Grade Ad	ljustment	0.0
	nd Elevation:	0.0 feet		-	Lane Eq	uivalen	t Dista	nce (in	feet)		
	Road Grade:	0.0%		F		Auto		2.547	.001)		
	Left View:	-90.0 degre	29		Mediu	m Truck	s: 9	2.504			
	Right View:	90.0 degre			Heav	y Truck	s: 92	2.547			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fres	snel	Barrier Att	en Bei	m Atter
Autos:	68.46	0.58		-4.11		-1.20		-4.87		000	0.00
Medium Trucks:	79.45	-16.66		-4.11		-1.20		-4.97		000	0.00
Heavy Trucks:	84.25	-20.62		-4.11	-	-1.20		-5.16	0.0	000	0.00
Unmitigated Noise VehicleType	Leg Peak Hou			r atten Leg Ev		Lon	Night	_	l dn		NFI
Autos:	63		61.8	Ley E	60.1	Leq	rvigrit 54	0	62.I	_	63
Medium Trucks:	57		56.0		49.6		48		56.5	-	56
Heavy Trucks:	58		56.9		47.9		49		57.	-	57
Vehicle Noise:	65	i.6	63.8		60.7		56	.0	64.	5	65
Centerline Distanc	e to Noise Co	ontour (in feet	)								
				70 c	1BA	65	dBA	(	60 dBA	55	dBA
			Ldn:	4:	-		93		200		132
		0	VFI:	4	e	4	00		215	,	163

Tuesday, May 29, 2012

FH	WA-RD-77-108 HIG	HWAY NOIS	E PREDICTIO	N MODEL			
Scenario: Existing V	/ith Project		Project N	ame: NNCF	C		
Road Name: San Joaqi	uin Hills		Job Nur	nber: 8211			
Road Segment: East of Sa	inta Cruz						
SITE SPECIFIC I	NPUT DATA			ISE MODE		S	
Highway Data		Site	Conditions (F	lard = 10, S	oft = 15)		
Average Daily Traffic (Adt):	13,800 vehicles			Autos.	15		
Peak Hour Percentage:	10%		Medium Truc	ks (2 Axles).	15		
Peak Hour Volume:	1,380 vehicles		Heavy Truck	s (3+ Axles).	15		
Vehicle Speed:	45 mph	Vehi	cle Mix				
Near/Far Lane Distance:	76 feet		VehicleType	Day	Evening	Night	Daily
Site Data			Au	tos: 77.5%	6 12.9%	9.6%	97.42%
Barrier Height:	0.0 feet		Medium Tru	cks: 84.8%	6 4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0		Heavy Tru	cks: 86.5%	6 2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet	Nois	e Source Elev	ations (in f	eet)		
Centerline Dist. to Observer:	100.0 feet		Autos:	2.000	/		
Barrier Distance to Observer:	0.0 feet	M	edium Trucks:	4.000			
Observer Height (Above Pad):	5.0 feet		leavv Trucks:	8.006	Grade Ad	iustment.	0.0
Pad Elevation:	0.0 feet		, , , , ,				
Road Elevation:	0.0 feet	Lane	Equivalent E		feet)		
Road Grade:	0.0%		Autos:	92.547			
Left View:	-90.0 degrees		edium Trucks:	92.504			
Right View:	90.0 degrees	F	leavy Trucks:	92.547			
FHWA Noise Model Calculation							
VehicleType REMEL			nite Road	Fresnel	Barrier Att		m Atten
Autos: 68.46		-4.11	-1.20	-4.87		000	0.000
Medium Trucks: 79.45		-4.11	-1.20	-4.97		000	0.000
Heavy Trucks: 84.25		-4.11	-1.20	-5.16	0.0	000	0.000
Unmitigated Noise Levels (with			-				
VehicleType Leq Peak Ho Autos: 6	ur Leq Day 2.6 60.7	Leq Evenir	g Leq Ni i8.9	52.9	Ldn 61.5		NEL 62.1
	2.6 60.7 6.3 54.8		8.5 8.5	52.9 46.9	61.t	-	55.6
	54.8 7.2 55.8		16.7	48.0	56.3		56.5
	7.2 55.8 4.4 62.7		i9.5	54.9	63.4		63.9
			9.5	54.9	63.4	+	63.5
Centerline Distance to Noise C	ontour (in feet)	70 dBA	65 dF	24	60 dBA	FF	dBA
		/U abA	00 01	D/A	ou ubA	55	UDM
	I alm	26	70		160	2	62
	Ldn: CNFI:	36 39	78 84		169 181	-	63 90

	FHV	VA-RD-77-108	HIGH	WAY I	NOISE P	REDICT	ION MC	DEL			
Road Nam	io: Existing Wi ne: San Joaqui nt: West of Sa	n Hills					! Name: lumber:		С		
SITE	SPECIFIC IN	PUT DATA				١	NOISE	MODE	L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	15,800 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	1,580 vehicle	s		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		H	Vehicle	Mix					
Near/Far La	ne Distance:	76 feet		ŀ		icleType	e	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
Bai	rrier Height:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W	-	0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	st. to Barrier:	100.0 feet		ŀ	Noise S	ource E	levation	ıs (in fe	eet)		
Centerline Dist.		100.0 feet		ľ		Auto		.000	,		
Barrier Distance		0.0 feet			Mediu	m Truck	s: 4	.000			
Observer Height (	,	5.0 feet			Hear	y Truck	s: 8	.006	Grade Ad	justmen	t: 0.0
	ad Elevation:	0.0 feet		-							
	ad Elevation:	0.0 feet		-	Lane Eq				eet)		
1	Road Grade:	0.0%				Auto		.547			
	Left View:	-90.0 degre				m Truck		.504			
	Right View:	90.0 degre	es		Hea	y Truck	s: 92	.547			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	68.46	0.04		-4.1		-1.20		-4.87		000	0.000
Medium Trucks:	79.45	-17.20		-4.1		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-21.16		-4.1	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise		-									
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		NEL
Autos:	63	_	61.3		59.5		53.	-	62.		62.7
Medium Trucks:	56		55.4		49.1		47.	-	56.0		56.2
Heavy Trucks: Vehicle Noise:	57 65		56.4 63.3		47.3 60.1		48. 55.		56.9 64.0		57.1 64.4
Centerline Distant					00.1		55.	•	04.		04.4
Senterine Distant	SE TO MOISE CO	nnour (iii leet	,	70	dBA	65	dBA	6	i0 dBA	55	5 dBA
			Ldn:	4	10		36		184	-	397
		C	NEL:	4	13	9	92		198		426

	FHV	VA-RD-77-108	HIGHV	VAY_N	IOISE P	REDICTIO	N MO	DEL_			
Road Nam	io: Existing Will e: San Joaquil nt: West of Ma	n Hills				Project N			С		
SITE S	SPECIFIC IN	PUT DATA				NO	DISE N	MODE	L INPUT	S	
Highway Data					Site Cor	nditions (i	Hard =	10, S	oft = 15)		
Peak H	Percentage: our Volume:	10% 2,130 vehicles				edium Truck eavy Truck	cks (2 /	,	15		
Vei Near/Far I ai	hicle Speed:	45 mph 76 feet		Ī	Vehicle	Mix					
	ne Distance:	76 reet			Veh	icleType		Day	Evening	Night	
Site Data Barrier Type (0-W	rier Height: 'all, 1-Berm):	0.0 feet 0.0				Au edium Tru Heavy Tru	cks:	77.5% 84.8% 86.5%	4.9%	9.69 10.39 10.89	% 1.849
Centerline Dis	st. to Barrier:	100.0 feet		- 1	Noise S	ource Ele	vation	s (in f	eet)		
Centerline Dist. Barrier Distance Observer Height (	to Observer:	100.0 feet 0.0 feet 5.0 feet			Mediu	Autos: m Trucks: yy Trucks:	2. 4.	000 000 006	Grade Adj	iustmei	nt: 0.0
Ros	ad Elevation:	0.0 feet		1	Lane Eq	uivalent i	Distan	ce (in	feet)		
F	Road Grade: Left View: Right View:	0.0% -90.0 degree 90.0 degree				Autos: m Trucks: yy Trucks:	92.	547 504 547			
FHWA Noise Mode	el Calculations	s									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresr	nel	Barrier Att	en B	erm Atter
Autos:	68.46	1.33		-4.1	1	-1.20		-4.87	0.0	000	0.00
Medium Trucks:	79.45	-15.91		-4.1		-1.20		-4.97		000	0.00
Heavy Trucks:	84.25	-19.86		-4.1		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise	•										
VehicleType	Leq Peak Hou	., .,	_	Leq E	vening	Leq N	_		Ldn		CNEL
Autos: Medium Trucks:	64. 58.		62.6 56.7		60.8 50.4		54.8 48.8	-	63.4 57.3		64 57
	58. 59.		56.7 57.7		50.4 48.6		48.8	-	57.3		
Heavy Trucks: Vehicle Noise:	59.		64.6		48.6 61.4		49.9 56.7		58.2 65.3		58. 65.
Centerline Distance											
Centernine Distant	e to worse Co	intour (in reet)		70 c	dBA	65 d	BA		60 dBA	5	5 dBA
			Ldn:	4		10-			225		485
		CN	IEL:	5	2	11:	2		241		520

	FHV	VA-RD-77-108	HIGH	1 YAWI	NOISE P	REDICT	ION M	ODEL			
	o: Existing Wi e: San Joaqui nt: East of Sar	n Hills					Name lumber	: NNCP : 8211	С		
SITE S	SPECIFIC IN	IPUT DATA				١	IOISE	MODE	L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 1	21,700 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	our Volume:	2,170 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Vei	hicle Speed:	45 mph		-	Vehicle	Mix					
Near/Far Lar	ne Distance:	76 feet		-		icleType	9	Day	Evening	Night	Daily
Site Data						-	Autos:	77.5%	12.9%	9.6%	97.42
Bar	rier Heiaht:	0.0 feet			M	ledium T	rucks:	84.8%	4.9%	10.3%	1.84
Barrier Type (0-W	all, 1-Berm):	0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.74
Centerline Dis	t. to Barrier:	100.0 feet		-	Noise S	ource F	levatio	ns (in f	pet)		
Centerline Dist.	to Observer:	100.0 feet		H		Auto		2.000	,,,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck		1.000			
Observer Height (	,	5.0 feet			Hea	vy Truck	s: 8	3.006	Grade Ad	ljustment	: 0.0
	d Elevation:	0.0 feet		-		•		-			
	d Elevation:	0.0 feet			Lane Eq				feet)		
F	Road Grade:	0.0%				Auto m Truck		2.547			
	Left View: Right View:	-90.0 degre 90.0 degre				m rruck vy Truck		2.504			
			C3		7100	ry much	3. 32	2.047			
FHWA Noise Mode VehicleType	REMEI	s Traffic Flow	Die	tance	Finite	Road	Fres	ano!	Barrier At	ton Bo	rm Atter
Autos:	68.46	1.41	DIS	-4.1		-1.20	ries	-4.87		000	0.00
Medium Trucks:	79.45	-15.82		-4.1		-1.20		-4.97		000	0.0
Heavy Trucks:	84.25	-19.78		-4.1		-1.20		-5.16		000	0.00
Unmitigated Noise	Levels (with	out Topo and	barrie	er atter	nuation)						
	Leq Peak Hou				vening	Leq	Night		Ldn	С	NEL
Autos:	64	.6	62.7		60.9		54	.8	63.	5	64
Medium Trucks:	58	.3	56.8		50.4		48	.9	57.	4	57
Heavy Trucks:	59	.2	57.7		48.7		49	.9	58.	3	58
Vehicle Noise:	66	.4	64.7		61.5		56	8.8	65.	4	65
Centerline Distand	e to Noise Co	ontour (in feet	)							,	
			L		dBA		dBA	(	60 dBA		dBA
		0	Ldn: NFI:		19 i3		06		228		191 527
		C	VEL:	5	3	1	13		244		)2/

Tuesday, May 29, 2012

FHWA-RD-77-108 HIGH	WAY NOISE PREDICTION MODEL	
Scenario: Existing With Project	Project Name: NNCPC	
Road Name: San Joaquin Hills	Job Number: 8211	
Road Segment: East of Macarthur		
SITE SPECIFIC INPUT DATA	NOISE MODEL INPUTS	
Highway Data	Site Conditions (Hard = 10, Soft = 15)	
Average Daily Traffic (Adt): 20,600 vehicles	Autos: 15	
Peak Hour Percentage: 10%	Medium Trucks (2 Axles): 15	
Peak Hour Volume: 2,060 vehicles	Heavy Trucks (3+ Axles): 15	
Vehicle Speed: 45 mph	Vehicle Mix	
Near/Far Lane Distance: 76 feet	VehicleType Day Evening Night D	Daily
Site Data	Autos: 77.5% 12.9% 9.6% 97	7.42%
Barrier Height: 0.0 feet	Medium Trucks: 84.8% 4.9% 10.3% 1	1.84%
Barrier Type (0-Wall, 1-Berm): 0.0	Heavy Trucks: 86.5% 2.7% 10.8% 0	).74%
Centerline Dist. to Barrier: 100.0 feet	Noise Source Elevations (in feet)	
Centerline Dist. to Observer: 100.0 feet	Autos: 2,000	
Barrier Distance to Observer: 0.0 feet	Medium Trucks: 4,000	
Observer Height (Above Pad): 5.0 feet	Heavy Trucks: 8,006 Grade Adjustment: 0.	0
Pad Elevation: 0.0 feet		
Road Elevation: 0.0 feet	Lane Equivalent Distance (in feet)	
Road Grade: 0.0%	Autos: 92.547	
Left View: -90.0 degrees	Medium Trucks: 92.504	
Right View: 90.0 degrees	Heavy Trucks: 92.547	
FHWA Noise Model Calculations		
	tance Finite Road Fresnel Barrier Atten Berm A	
Autos: 68.46 1.19		0.000
Medium Trucks: 79.45 -16.05		0.000
Heavy Trucks: 84.25 -20.01		0.000
Unmitigated Noise Levels (without Topo and barrie VehicleType Leq Peak Hour Leq Day	r attenuation) Leg Evening Leg Night Ldn CNEL	
Autos: 64.3 62.4	60.7 54.6 63.2	63.8
Medium Trucks: 58.1 56.6	50.2 48.7 57.1	57.4
Heavy Trucks: 58.9 57.5	48.5 49.7 58.1	58.2
Vehicle Noise: 66.2 64.4	61.3 56.6 65.1	65.6
Centerline Distance to Noise Contour (in feet)		
, ,	70 dBA 65 dBA 60 dBA 55 dB.	Α
	47 102 220 474	
Ldn:	47 102 220 474	

Tuesday, May 29, 2012 Tuesday, May 29, 2012

	FHW	/A-RD-77-108	HIGH	WAY N	NOISE P	REDICTI	ON MO	DEL			
Road Nan	nio: Existing Wit ne: San Clemer nt: East of San	nte				Project Job N	Name: umber:		С		
SITE	SPECIFIC IN	PUT DATA				N	IOISE I	MODE	L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	:10, S	oft = 15)		
Average Daily	Traffic (Adt):	5,700 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles).	15		
Peak H	lour Volume:	570 vehicle	S		He	avy Truc	ks (3+ )	Axles).	15		
Ve	hicle Speed:	40 mph		H	Vehicle	Mix					
Near/Far La	ne Distance:	36 feet		F		icleType		Day	Evening	Night	Daily
Site Data						- /	Autos:	77.5%	12.9%	9.6%	97.42%
Ra	rrier Height:	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0				Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Di	st. to Barrier:	100.0 feet		H	Noise S	ource El	evation	s (in f	eet)		
Centerline Dist.	to Observer:	100.0 feet		F		Autos		000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks		000			
Observer Height	(Above Pad):	5.0 feet			Hear	vy Trucks	s: 8.	006	Grade Ad	iustmen	t: 0.0
	ad Elevation:	0.0 feet		L							
	ad Elevation:	0.0 feet		- 4	Lane Eq				feet)		
	Road Grade:	0.0%				Autos		412			
	Left View:	-90.0 degre				m Trucks		.372			
	Right View:	90.0 degre	es		Hear	y Trucks	s: 98.	413			
FHWA Noise Mod	el Calculations	;									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fresi	nel	Barrier Att	en Be	rm Atten
Autos:	66.51	-3.88		-4.5	1	-1.20		-4.87	0.0	000	0.000
Medium Trucks:	77.72	-21.12		-4.5	1	-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	82.99	-25.07		-4.5	1	-1.20		-5.16	0.0	000	0.000
<b>Unmitigated Nois</b>	e Levels (witho	out Topo and	barrie	r atter	nuation)						
VehicleType	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq			Ldn		NEL
Autos:	56.	9	55.0		53.3		47.	2	55.8	3	56.4
Medium Trucks:			49.4		43.0		41.		49.9		50.2
Heavy Trucks:			50.8		41.7		43.0		51.4		51.5
Vehicle Noise:			57.2		53.9		49.4	4	57.9	)	58.3
Centerline Distan	ce to Noise Co	ntour (in feet	)	70	10.4	05	10.4				
			L =1==:		dBA		dBA		50 dBA		dBA
		_	Ldn:		6	-	4		72		156
		C	NEL:	1	7	3	6		78		167

FI	HWA-RD-77	-108 HIG	HWAY	NOISE P	REDICTI	ON MO	DEL			
Scenario: Existing \ Road Name: Santa Ba Road Segment: West of J	rbara				Project . Job Ni	Name: Imber:		С		
SITE SPECIFIC	NPUT DA	ГА			N	OISE N	/ODE	L INPUT	S	
Highway Data				Site Cor	nditions (	Hard =	10, Sc	oft = 15)		
Average Daily Traffic (Adt):	2,100 vel	nicles					Autos:	15		
Peak Hour Percentage:	10%			Me	edium Tru	cks (2 A	(xles	15		
Peak Hour Volume:	210 vel	nicles		He	eavy Truc	ks (3+ A	(xles	15		
Vehicle Speed:	40 mp	h		Vehicle	Miv					
Near/Far Lane Distance:	36 fee	t			icleTvpe		Dav	Evenina	Niaht	Dailv
Site Data				*01.	,,		77.5%		9.6%	. ,
Barrier Height:	0.0 fe	<b>a4</b>		М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0 16	eı			Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 fe	et			·			-1		
Centerline Dist. to Observer:	100.0 fe	et		Noise S	ource Ele		•	eet)		
Barrier Distance to Observer:	0.0 fe				Autos		000			
Observer Height (Above Pad):	5.0 fe	et			m Trucks		000	0		
Pad Elevation:	0.0 fe	et		Hea	y Trucks	: 8.0	006	Grade Adj	ustment.	0.0
Road Elevation:	0.0 fe	et		Lane Eq	uivalent	Distan	ce (in t	feet)		
Road Grade:	0.0%				Autos	: 98.	412			
Left View:	-90.0 de	grees		Mediu	m Trucks	: 98.	372			
Right View:	90.0 de	grees		Hear	y Trucks	: 98.	413			
FHWA Noise Model Calculation	ns									
VehicleType REMEL	Traffic Fl	ow Di	istance	Finite	Road	Fresn	iel	Barrier Att	en Ber	m Atten
Autos: 66.5	1 -8	3.22	-4.	51	-1.20		-4.87	0.0	000	0.000
Medium Trucks: 77.7	2 -25	5.46	-4.	51	-1.20		-4.97	0.0	000	0.000
Heavy Trucks: 82.9	9 -29	9.41	-4.5	51	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise Levels (with	hout Topo	and barr	ier atte	nuation)						
VehicleType Leq Peak H	our Leq	Day	Leq E	vening	Leq I	Vight		Ldn	Ci	NEL
Autos:	52.6	50.7		48.9		42.9	)	51.5	5	52.1
Medium Trucks:	16.5	45.0		38.7		37.1		45.6	6	45.8
Heavy Trucks:	17.9	46.4		37.4		38.7		47.0	)	47.1
ricavy riucks.	54.6	52.9		49.6		45.0	)	53.6	3	54.0
	04.0									
		feet)								
Vehicle Noise:		feet)	70	dBA	65 (	iBA	6	i0 dBA	55	dBA
Vehicle Noise:		feet) Ldn: CNFL:		dBA 8	65 d	7	6	37 40		<i>dBA</i> 80

	FHV	VA-RD-77-108	HIGH	I YAWI	NOISE P	REDICT	TION M	ODEL			
Road Nan	rio: Existing Wi ne: San Cleme ent: West of Sa	nte					t Name Vumber	: NNCP : 8211	С		
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	5,900 vehicle	S					Autos:	15		
Peak Hour	Percentage:	10%						2 Axles):			
Peak I	Hour Volume:	590 vehicle	S		He	eavy Tru	icks (3+	+ Axles):	15		
Ve	ehicle Speed:	40 mph		f	Vehicle	Mix					
Near/Far La	ane Distance:	36 feet		İ		icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.429
Ba	rrier Height:	0.0 feet			M	ledium 1	rucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-V		0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline D	ist. to Barrier:	100.0 feet		-	Noise S	ource F	levatio	ns (in f	oet)		
Centerline Dist.	to Observer:	100.0 feet		ŀ		Auto		2.000	,		
Barrier Distance	to Observer:	0.0 feet			Madii	m Truci		4.000			
Observer Height	(Above Pad):	5.0 feet				vy Truci		8.006	Grade Ad	iustment	0.0
P	ad Elevation:	0.0 feet		L							
Ro	ad Elevation:	0.0 feet			Lane Eq				feet)		
	Road Grade:	0.0%				Auto		8.412			
	Left View:	-90.0 degre				m Truci		8.372			
	Right View:	90.0 degre	es		Hea	vy Truci	ks: 9	8.413			
FHWA Noise Mod	lel Calculation:	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fre	snel	Barrier Att	en Bei	m Atten
Autos:		-3.73		-4.5		-1.20		-4.87		000	0.00
Medium Trucks:		-20.97		-4.5		-1.20		-4.97		000	0.00
Heavy Trucks:	82.99	-24.93		-4.5	1	-1.20		-5.16	0.0	000	0.00
Unmitigated Nois				er atter	nuation)						
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		NEL
Autos:			55.2		53.4			7.3	56.0	-	56.
Medium Trucks:			49.5		43.2			1.6	50.		50.
Heavy Trucks:			50.9		41.9			3.1	51.5		51.
Vehicle Noise:	59	.1	57.3		54.1		49	9.5	58.	1	58.
Centerline Distan	ce to Noise Co	ontour (in feet	)			r					
				70	dBA	65	dBA	1 6	60 dBA	55	dBA

Tuesday, May 29, 2012

ı	HWA	-RD-77-108 I	HIGHWAY	NOISE P	REDICTION	ON MO	DDEL			
Scenario: Existing	With	Project			Project I	Name:	NNCF	c		
Road Name: Santa B	arbara	ì			Job Nu	ımber:	8211			
Road Segment: East of	Jambo	ree								
SITE SPECIFIC	INPU	JT DATA						L INPUT	S	
Highway Data				Site Con	ditions (	Hard:	= 10, S	oft = 15)		
Average Daily Traffic (Adt,	: 12,	200 vehicles					Autos	15		
Peak Hour Percentage	E.	10%		Me	dium Tru	cks (2	Axles)	15		
Peak Hour Volume	: 1,:	220 vehicles		He	avy Truc	ks (3+	Axles)	15		
Vehicle Speed	t:	40 mph		Vehicle	Mix					
Near/Far Lane Distance	e:	36 feet			icleType		Day	Evening	Night	Daily
Site Data					Α.	utos:	77.5%		9.6%	97.42%
Barrier Heigh	f	0.0 feet		M	edium Tru	ucks:	84.89	6 4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm		0.0		I	Heavy Tru	ucks:	86.5%	6 2.7%	10.8%	0.74%
Centerline Dist. to Barrie	r: 1	00.0 feet		Noise So	ource Fle	evatio	ns (in t	eet)		
Centerline Dist. to Observe	r: 1	00.0 feet		710,00 01	Autos		.000	001)		
Barrier Distance to Observe	r:	0.0 feet		Modius	m Trucks		.000			
Observer Height (Above Pad	):	5.0 feet			v Trucks		.006	Grade Ad	liustment	. 0 0
Pad Elevation	)."	0.0 feet		77001	y mucho		.000		,	
Road Elevation	)."	0.0 feet		Lane Eq	uivalent	Distai	nce (in	feet)		
Road Grade	e:	0.0%			Autos		3.412			
Left View	/:    -	90.0 degree	s		m Trucks		3.372			
Right View	/:	90.0 degree	s	Heav	y Trucks	: 98	3.413			
FHWA Noise Model Calculate	ions			1						
VehicleType REMEL	T	raffic Flow	Distance	e Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos: 66.	51	-0.58	-4	.51	-1.20		-4.87	0.0	000	0.000
Medium Trucks: 77.	72	-17.81	-4	.51	-1.20		-4.97	0.0	000	0.000
Heavy Trucks: 82.	99	-21.77	-4	.51	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise Levels (w	ithou	t Topo and b	arrier att	enuation)						
VehicleType Leq Peak I		Leq Day		Evening	Leq N			Ldn		NEL
Autos:	60.2	-	8.3	56.6		50	-	59.		59.7
Medium Trucks:	54.2	-	2.7	46.3		44		53.	_	53.5
Heavy Trucks:	55.5		4.1	45.1		46		54.		54.8
Vehicle Noise:	62.2	6	0.5	57.2		52	.7	61.:	2	61.7
Centerline Distance to Noise										
				0 dBA	65 a			60 dBA		dBA
		- 1	.dn:	26	56	3		120	2	59
			FI:	28	60	-		129		78

Tuesday, May 29, 2012

	FH	WA-RD-77-108	HIGH	1 YAW	NOISE PI	REDICT	ION MC	DEL			
Road Nar	rio: Existing W me: Santa Barl ent: North of S	bara					Name: lumber:		С		
SITE	SPECIFIC II	NPUT DATA				١	NOISE	MODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard =	: 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	12,100 vehicle	S					Autos:	15		
Peak Hou	r Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15		
Peak I	Hour Volume:	1,210 vehicle	S		He	avy Tru	cks (3+.	Axles):	15		
V	ehicle Speed:	40 mph		F	Vehicle	Miv					
Near/Far L	ane Distance:	36 feet				icleType	9	Dav	Evening	Niaht	Daily
Site Data							Autos:	77.5%		9.6%	
D.	arrier Height:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-V		0.0			1	Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%
	ist. to Barrier:	100.0 feet		-	Noise S	ouroo E	lovetion	o (in f	2041		
Centerline Dist	to Observer:	100.0 feet		F	Noise 3	Auto		000	eet)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		000			
Observer Height	(Above Pad):	5.0 feet				n Truck vy Truck		000	Grade Ad	iustmon	+· 0.0
F	Pad Elevation:	0.0 feet			пеац	ry Truck	S. O.	006	Grade Au,	usunen	. 0.0
Ro	oad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 98	412			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 98	372			
	Right View:	90.0 degre	es		Heav	y Truck	s: 98	413			
FHWA Noise Mod	del Calculation	18									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fresi	nel	Barrier Att	en Be	rm Atten
Autos	: 66.51	-0.61		-4.5	1	-1.20		-4.87	0.0	000	0.000
Medium Trucks				-4.5		-1.20		-4.97		000	0.000
Heavy Trucks	: 82.99	-21.81		-4.5	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Nois	se Levels (with	out Topo and	barrie	r atter	nuation)						
VehicleType	Leq Peak Ho			Leq E	vening	Leq	Night		Ldn		NEL
Autos			58.3		56.5		50.	-	59.1		59.7
Medium Trucks			52.6		46.3		44.		53.2		53.4
Heavy Trucks			54.1		45.0		46.	-	54.6		54.7
Vehicle Noise		2.2	60.5		57.2		52.	6	61.2	2	61.6
Centerline Distar	nce to Noise C	ontour (in feet	)								
			L		dBA		dBA	- (	60 dBA		dBA
			Ldn:	_	26		56		120		258
		C	NEL:	2	28		59		128		276

Scenario: Existing With Project   Project Name: NNCPC   Job Number: 8211     Site Conditions (Hard = 10, Soft = 15)
Site Conditions (Hard = 10, Soft = 15)
Average Daily Traffic (Adt): 6,400 vehicles   Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15   Heavy Trucks (3+ Axles): 15   Vehicle Speed: 40 mph Near/Far Lane Distance: 36 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Day   Evening   Night   Day   Evening   Night   Day   Percentage: 100   Notes   N
Peak Hour Percentage:
Near/Far Lane Distance: 36 feet   Vehicle flype   Day   Evening   Night   Description   Night   Description   Night   Night   Description   Night   Description   Night   Ni
Vehicle type
Barrier Height:   0.0   feet   Medium Trucks: 84.8%   4.9%   10.3%   1   Heavy Trucks: 85.5%   2.7%   10.8%   0   Moise Source Elevations (in feet)
Barrier Type (0-Wall, 1-Berm): 0.0   Heavy Trucks: 86.5% 2.7% 10.8% 0
Barrier Type (0-Wall, 1-Berm): 0.0   Heavy Trucks: 86.5%   2.7%   10.8%   0.0
Centerline Dist. to Observer:   100.0 feet   Autos: 2.00
Centerline Dist. to Observer:   100.0 feet   Autos:   2.000
Barrier Distance to Observer: 0.0 feet   Medium Trucks: 4.000   Grade Adjustment: 0.00
Diserver Height (Above Padi: 5.0 feet   Heavy Trucks: 8.006   Grade Adjustment: 0.0
Pad Elevation: 0.0 feet   Lane Equivalent Distance (in feet)
Road Grade: 0.0%
Left View:
Right View: 90.0 degrees   Heavy Trucks: 98.413
FHWA Noise Model Calculations  VehicleType   REMEL   Traffic Flow   Distance   Finite Road   Fresnet   Barrier Atten   Berm A
VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Berm A           Autos:         66.51         -3.38         -4.51         -1.20         -4.87         0.000         0
Autos: 66.51 -3.38 -4.51 -1.20 -4.87 0.000 (
· · · · · · · · · · · · · · · · · · ·
Medium Trucks: 77.72 -20.62 -4.51 -1.20 -4.97 0.000
Heavy Trucks: 82.99 -24.57 -4.51 -1.20 -5.16 0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)
VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn CNEL
Autos: 57.4 55.5 53.8 47.7 56.3
Medium Trucks: 51.4 49.9 43.5 42.0 50.4
Heavy Trucks:         52.7         51.3         42.3         43.5         51.9           Vehicle Noise:         59.4         57.7         54.4         49.9         58.4
Centerline Distance to Noise Contour (in feet) 70 dBA 65 dBA 60 dBA 55 dB/
Ldn: 17 36 78 169
CNEL: 18 39 84 181

Barrier Height: U.U teet		FHW	/A-RD-77-108	HIGHWAY	NOISE PI	REDICT	ION MO	DEL			
Autos: 15   Auto	Road Nam	ne: Santa Barba	ara			.,			С		
Average Daily Traffic (Adf): 7,300 vehicles   Peak Hour Percentage: 10%   Peak Hour Vehicle Speed: 40 mph   Vehicle Speed: 40 mph   Vehicle Speed: 40 mph   Vehicle Mix   Vehicle View   0.0 of let Mix   Vehicle Mix   Vehicle Mix   Vehicle		SPECIFIC IN	PUT DATA							S	
Peak Hour Percentage: Peak Hour Volume: Peak H	Highway Data				Site Cor	ditions	(Hard =	: 10, Sc	oft = 15)		
Peak Hour Volume: Vehicle Speed: 40 mph   Near/Far Lane Distance: 36 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Daily   Dai	Average Daily	Traffic (Adt):	7,300 vehicles	3				Autos:	15		
Vehicle Speed:	Peak Hour	Percentage:	10%		Me	dium Tri	ucks (2 .	Axles):	15		
Near/Far Lane Distance:   36 feet   VehicleType   Day   Evening   Night   Daily	Peak H	lour Volume:	730 vehicles	3	He	avy Trud	cks (3+ .	Axles):	15		
Site Data   Barrier Height:   Barrier Height:   Barrier Height:   Barrier Type (0-Wall, 1-Berm):   0.0   feet   Centerline Dist. to Barrier:   100.0   feet   Centerline Dist. to Observer:   100.0   feet   Center	Ve	hicle Speed:	40 mph		Vehicle	Mix					
Barrier Height:   0.0   feet	Near/Far La	ne Distance:	36 feet		Veh	icleType	)	Day	Evening	Night	Daily
Barrier Type (0-Weil, 1-Berm): 0.0   Teet	Site Data						Autos:	77.5%	12.9%	9.6%	97.42%
Barrier Type (0-Wall, 1-Berm): 0.0   Centerline Dist. to Barrier: 100.0   feet   Centerline Dist. to Darrier: 100.0   feet   Centerline Dist. to Darrier: 100.0   feet   Centerline Dist. to Diserver: 100.0   feet   Centerline Dist. feet	Ra	rrier Height	0.0 feet		М	edium Ti	rucks:	84.8%	4.9%	10.3%	1.84%
Noise Source Elevations (in Teet)						Heavy Ti	rucks:	86.5%	2.7%	10.8%	0.74%
Autos: 2,000   Barrier Autos: 4,000   Barri	Centerline Di	st. to Barrier:	100.0 feet		Maica S	urco E	lovation	e (in fe	not)		
Barrier Distance to Observer:   0.0 feet     Medium Trucks:   4.000   Heavy Trucks:   8.006   Grade Adjustment: 0.0   Heavy Trucks:   9.00   Heavy Trucks:   98.372   Heavy Trucks:   98.372   Heavy Trucks:   98.372   Heavy Trucks:   98.413   Heavy Truck	Centerline Dist.	to Observer:	100.0 feet		NOISE S				ei)		
Diserver Height (Above Pad):   5.0   feet   Pad Elevation:   0.0   feet   Care   Pad Elevation:   0.0   feet   feet   Finite Road   Fresnel   Barrier Atten   Berm Atten   Pad Elevation:   0.0   feet   Barrier Distance	to Observer:	0.0 feet		Modiu							
Pad Elevation:   0.0 feet     Cane Equivalent Distance (in feet)   Cane Equivalent Distance (in feet)	Observer Height (	(Above Pad):	5.0 feet						Grade Ad	iustment	. 0.0
Road Grade:   0.0%   Autos:   98.412	Pi	ad Elevation:	0.0 feet							doumone	. 0.0
	Roa	ad Elevation:	0.0 feet		Lane Eq	uivalen	t Distan	ce (in t	feet)		
Right View:   90.0 degrees   Heavy Trucks:   98.413		Road Grade:	0.0%			Auto	s: 98	.412			
		Left View:	-90.0 degree	s	Mediu	m Truck	s: 98	.372			
VehicleType		Right View:	90.0 degree	es	Heav	y Truck	s: 98	.413			
Autos: 66.51				D	Les	5 .1	_		5 : 4"	-	
Medium Trucks:   77.72   -20.04   -4.51   -1.20   -4.97   0.000   0.000     Heavy Trucks:   82.99   -24.00   -4.51   -1.20   -5.16   0.000   0.000     Unmitigated Noise   Level's (wittout Tropo and barrier attenuation)	,,						Fresi				
Heavy Trucks:   82.99   -24.00   -4.51   -1.20   -5.16   0.000   0.000											
Unmitigated Noise   Levels (without Topo and barrier attenuation)   VehicleType   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNEL											
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         58.0         56.1         54.3         48.3         56.9         57.1           Medium Trucks:         52.0         50.5         44.1         42.5         51.0         51.           Heavy Trucks:         53.3         51.9         42.8         44.1         52.4         52.1           Vehicle Noise:         60.0         58.3         55.0         50.4         59.0         59.0						-1.20		-5.16	0.0	000	0.000
Autos:         58.0         56.1         54.3         48.3         56.9         57.3           Medium Trucks:         52.0         50.5         44.1         42.5         51.0         51.3           Heavy Trucks:         53.3         51.9         42.8         44.1         52.4         52.1           Vehicle Noise:         60.0         58.3         55.0         50.4         59.0         59.0										1 -	
Medium Trucks:         52.0         50.5         44.1         42.5         51.0         51.1           Heavy Trucks:         53.3         51.9         42.8         44.1         52.4         52.1           Vehicle Noise:         60.0         58.3         55.0         50.4         59.0         59.0	,,					Leq					
Heavy Trucks:         53.3         51.9         42.8         44.1         52.4         52.1           Vehicle Noise:         60.0         58.3         55.0         50.4         59.0         59.0								-			
Vehicle Noise:         60.0         58.3         55.0         50.4         59.0         59.								-		-	
			•					_			
Centerline Distance to Noise Contour (in feet)	Vehicle Noise:	60.	0 5	58.3	55.0		50.	4	59.0	)	59.4
	Centerline Distant	ce to Noise Co	ntour (in feet)								

Ldn: CNEL:

Tuesday, May 29, 2012

FHWA-RD-77-10	HIGHWA'	Y NOISE P	REDICTI	ON MC	DEL			
Scenario: Existing With Project Road Name: Santa Barbara Road Segment: East of Newport CTR			Project Job No	Name: umber:		С		
SITE SPECIFIC INPUT DATA			N	OISE	MODE	L INPUT	S	
Highway Data		Site Cor	nditions	(Hard =	= 10, S	oft = 15)		
Average Daily Traffic (Adt): 3,300 vehicle	es				Autos:	15		
Peak Hour Percentage: 10%		Me	edium Tru	icks (2	Axles):	15		
Peak Hour Volume: 330 vehicle	es	He	eavy Truc	ks (3+	Axles):	15		
Vehicle Speed: 40 mph		Vehicle	Mix					
Near/Far Lane Distance: 36 feet			icleTvpe		Dav	Evening	Night	Dailv
Site Data		-	,,	utos:	77.5%		9.6%	
Barrier Height: 0.0 feet		М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm): 0.0			Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier: 100.0 feet		Noise S	ource Ele	evation	ns (in f	eet)		
Centerline Dist. to Observer: 100.0 feet			Autos	: 2	.000			
Barrier Distance to Observer: 0.0 feet		Mediu	m Trucks	: 4	.000			
Observer Height (Above Pad): 5.0 feet		Hear	vy Trucks	: 8	.006	Grade Ad	ljustment	0.0
Pad Elevation: 0.0 feet Road Elevation: 0.0 feet		I ano Fo	uivalent	Dietar	nce (in	foot)		
Road Elevation: 0.0 feet  Road Grade: 0.0%		Lane Ly	Autos		.412	ieet)		
Left View: -90.0 degre	000	Mediu	m Trucks		.372			
Right View: 90.0 degre			vy Trucks		.413			
FHWA Noise Model Calculations		1						
VehicleType REMEL Traffic Flow	Distanc	e Finite	Road	Fres	nel	Barrier At	ten Ber	m Atten
Autos: 66.51 -6.25		4.51	-1.20		-4.87		000	0.00
Medium Trucks: 77.72 -23.49		4.51	-1.20		-4.97		000	0.000
Heavy Trucks: 82.99 -27.45		4.51	-1.20		-5.16	0.	000	0.000
Unmitigated Noise Levels (without Topo and								
VehicleType Leq Peak Hour Leq Da  Autos: 54.5	y Leq 52.6	Evening 50.9	Leq I	Vignt 44	^	Ldn		VEL 54.1
Autos: 54.5 Medium Trucks: 48.5	52.6 47.0	50.9 40.6		44. 39.	_	53. 47.		54.° 47.8
Heavy Trucks: 49.8	48.4	39.4		39. 40.		47.	-	47.8
Vehicle Noise: 56.5	54.8	51.5		40.		55.	-	56.0
Centerline Distance to Noise Contour (in fee		01.0		.,.	-	50.		50.0
Comonino Distance to Hoise Contour (III lee		70 dBA	65 (	BA.	1	60 dBA	55	dBA
	Ldn:	11	2	3	-	50	1	08

Tuesday, May 29, 2012 Tuesday, May 29, 2012

	FH\	VA-RD-77-108	HIGH	1 YAW	NOISE P	REDICT	ION MC	DEL			
Road Nan	io: Existing Wine: San Miguel nt: West of Ne	•					Name: lumber:		С		
SITE	SPECIFIC IN	IPUT DATA				١	IOISE	MODE	L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	: 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	7,800 vehicle	S					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	780 vehicle	s		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		F	Vehicle	Miv					
Near/Far La	ne Distance:	52 feet		ŀ		icleType	,	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
Ba	rrier Height:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-V		0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Di		100.0 feet			Noise S	ource E	levation	ıs (in fe	eet)		
Centerline Dist.		100.0 feet		Ī		Auto	s: 2	.000			
Barrier Distance		0.0 feet			Mediu	m Truck	s: 4	.000			
Observer Height	. ,	5.0 feet			Hear	y Truck	s: 8	.006	Grade Ad	justmen	t: 0.0
1.5	ad Elevation:	0.0 feet		-							
	ad Elevation:	0.0 feet		-	Lane Eq			_ •	reet)		
	Road Grade:	0.0%			A de elle	Auto m Truck		.607 .566			
	Left View:	-90.0 degre				m Truck vy Truck		.506 .608			
	Right View:	90.0 degre	es		пеа	у писк	8. 90	.000			
FHWA Noise Mod											
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fres		Barrier Att		rm Atten
Autos:		-3.03		-4.3	-	-1.20		-4.87		000	0.000
Medium Trucks:		-20.27		-4.3	-	-1.20		-4.97		000	0.000
Heavy Trucks:		-24.22		-4.3	-	-1.20		-5.16	0.0	000	0.000
Unmitigated Nois								_			
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		NEL
Autos:	59		57.9		56.2		50.		58.		59.3
Medium Trucks:	53		52.1		45.7		44.	_	52.0	-	52.9
Heavy Trucks: Vehicle Noise:			53.0 59.9		44.0 56.8		45. 52.		53.0 60.0		53.7 61.1
Centerline Distan	ce to Noise Co	ontour (in feet	9								
- In Diotain		(111 1000		70	dBA	65	dBA	6	60 dBA	55	dBA
			Ldn:	2	:4	į	51		110		238
		Ci	NEL:	2	16		55		118	:	255

Tuesday,	May	29,	2012

	WA-RD-77-10	8 HIGH	WAY I	NOISE PI	REDICTION	OM MO	DEL			
Scenario: Existing W Road Name: San Migue Road Segment: West of A	el				Project I Job Nu	lame: 1 mber: 8				
SITE SPECIFIC II	NPUT DATA							L INPUTS	3	
Highway Data				Site Con	ditions (	Hard =	10, So	ft = 15)		
Average Daily Traffic (Adt):	16,400 vehicl	es				/	Autos:	15		
Peak Hour Percentage:	10%				dium Tru			15		
Peak Hour Volume:	1,640 vehicl	es		He	avy Truci	rs (3+ A	xles):	15		
Vehicle Speed:	45 mph		f	Vehicle	Mix					
Near/Far Lane Distance:	52 feet		ŀ	Veh	icleType		Day	Evening	Night	Daily
Site Data					A	ıtos:	77.5%	12.9%	9.6%	97.42%
Barrier Height:	0.0 feet			M	edium Tru	icks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0			1	Heavy Tru	icks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet		-	Noisa S	ource Ele	vations	(in fo	not)		
Centerline Dist. to Observer:	100.0 feet		ŀ	NOISE S	Autos.		•	ei)		
Barrier Distance to Observer:	0.0 feet			Modiu	Autos. m Trucks.					
Observer Height (Above Pad):	5.0 feet				y Trucks.		106	Grade Adj	iietmant	. 0.0
Pad Elevation:	0.0 feet			пеац	y Trucks.	0.0	000	Grade Adj	ustment	0.0
Road Elevation:	0.0 feet			Lane Eq	uivalent	Distand	e (in f	eet)		
Road Grade:	0.0%				Autos.	96.6	607			
Left View:	-90.0 degr	ees		Mediu	m Trucks	96.5	566			
Right View:	90.0 degr	ees		Heav	y Trucks.	96.6	808			
FHWA Noise Model Calculation	18									
VehicleType REMEL	Traffic Flow		tance		Road	Fresn		Barrier Atte		m Atten
	0.20	)	-4.3	39	-1.20		-4.87	0.0	100	0.00
Autos: 68.46										
Medium Trucks: 79.45			-4.3		-1.20		-4.97	0.0		
			-4.3 -4.3		-1.20 -1.20		-4.97 -5.16	0.0		
Medium Trucks: 79.45 Heavy Trucks: 84.25 Unmitigated Noise Levels (with	-21.0	d barrie	-4.3 er atte	39 nuation)	-1.20			0.0	100	0.000
Medium Trucks: 79.45 Heavy Trucks: 84.25 Unmitigated Noise Levels (with VehicleType Leq Peak Ho	-21.0i nout Topo and ur Leq Da	d barrie	-4.3 er atte	nuation) Evening		light	-5.16	0.0	00 C	0.000 VEL
Medium Trucks: 79.4t Heavy Trucks: 84.25 Unmitigated Noise Levels (with VehicleType Leq Peak Ho Autos: 6	-21.00 nout Topo and ur Leq Da 3.1	d barrie	-4.3 er atte	nuation) Evening 59.4	-1.20	light 53.3	-5.16	0.0 Ldn 62.0	Ci	0.000 NEL 62.6
Medium Trucks: 79.45 Heavy Trucks: 84.25 Unmitigated Noise Levels (with VehicleType Leq Peak Ho Autos: 66 Medium Trucks: 5	nout Topo and ur Leq Da 3.1 6.8	61.2 55.3	-4.3 er atte	nuation) Evening 59.4 48.9	-1.20	light 53.3 47.4	-5.16	0.0 Ldn 62.0 55.9	Ci	0.000 VEL 62.6 56.7
Medium Trucks: 79.48 Heavy Trucks: 84.28 Unmitigated Noise Levels (with VehicleType Leq Peak Ho Autos: 6 Medium Trucks: 5 Heavy Trucks: 5	-21.00 nout Topo and ur Leq Da 3.1	d barrie	-4.3 er atte	nuation) Evening 59.4 48.9 47.2	-1.20	light 53.3 47.4 48.5	-5.16	0.0 Ldn 62.0 55.9 56.8	Ci	0.000 VEL 62.6 56.1
Medium Trucks: 79.45 Heavy Trucks: 84.25 Unmitigated Noise Levels (with VehicleType Leq Peak Ho Autos: 6 Medium Trucks: 5 Heavy Trucks: 5 Vehicle Noise: 6	-21.0i nout Topo and ur Leq Da 3.1 6.8 7.7	61.2 55.3 56.2	-4.3 er atte	nuation) Evening 59.4 48.9	-1.20	light 53.3 47.4	-5.16	0.0 Ldn 62.0 55.9	Ci	0.000 VEL 62.0 56.1
Medium Trucks: 79.48 Heavy Trucks: 84.28 Unmitigated Noise Levels (with VehicleType Leq Peak Ho Autos: 6 Medium Trucks: 5 Heavy Trucks: 5	-21.0i nout Topo and ur Leq Da 3.1 6.8 7.7	61.2 55.3 56.2	-4.3 er attei Leq E	nuation) Evening 59.4 48.9 47.2	-1.20	53.3 47.4 48.5 55.3	-5.16	0.0 Ldn 62.0 55.9 56.8	Ci	0.000 0.000 NEL 62.6 56.1 56.9 64.3
Medium Trucks: 79.45 Heavy Trucks: 84.25 Unmitigated Noise Levels (with VehicleType Leq Peak Ho Autos: 6 Medium Trucks: 5 Heavy Trucks: 5 Vehicle Noise: 6	-21.0i nout Topo and ur Leq Da 3.1 6.8 7.7	61.2 55.3 56.2	-4.3 er atter Leq E	nuation) Evening 59.4 48.9 47.2 60.0	-1.20	53.3 47.4 48.5 55.3	-5.16	0.0 Ldn 62.0 55.9 56.8 63.9	Ci	0.000 NEL 62.6 56.7 56.9 64.3

Average Daily Traffic (Adf): 12,700 vehicles   Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15		FHV	VA-RD-77-108	HIGHW	AY NO	DISE PI	REDICT	TION M	ODEL			
Average Daily Traffic (Adi): 12,700 vehicles   Peak Hour Percentage: 10%   High may Data   Average Daily Traffic (Adi): 12,700 vehicles   Peak Hour Volume: 1,270 vehicles   Heavy Trucks (3+ Axles): 15   Heavy Trucks (3+ Axles): 15	Road Nam	e: San Miguel	,							0		
Average Daily Traffic (Adi): 12,700 vehicles   Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15	SITE S	SPECIFIC IN	PUT DATA					NOISE	MODE	L INPUT	S	
Peak Hour Percentage:	Highway Data				S	ite Cor	ditions	(Hard	= 10, Sc	ft = 15)		
Peak Hour Volume: Vehicle Speed: 45 mph   Vehicle Mix	Average Daily	Traffic (Adt): 1	2,700 vehicles	S					Autos:	15		
Vehicle Speed:         45 mph         Vehicle Mix         Vehicle Type         Day         Evening         Night         Da           Site Data         Autos:         77.5%         12.9%         9.6%         97.6%         9	Peak Hour	Percentage:	10%			Me	dium T	rucks (2	Axles):	15		
Near/Far Lane Distance:   52 feet     VehicleType   Day   Evening   Night   Das   Site Data     VehicleType   Night   Das   Site Data     VehicleType   Night   Night   Das   Site Data   Night   Night   Night   Das   Site Data   Night   Night   Das   Night	Peak H	our Volume:	1,270 vehicles	S		He	avy Tru	icks (3+	Axles):	15		
Site Data	Vei	hicle Speed:	45 mph		V	ehicle	Mix					
Barrier Height: Barrier Type (0-Wall, 1-Berm): 0.0   feet   Heavy Trucks: 84.8%   2.7%   10.8%   0.7   1.8	Near/Far Lar	ne Distance:	52 feet			Veh	icleTyp	е	Day	Evening	Night	Daily
Barrier Neght	Site Data							Autos:	77.5%	12.9%	9.6%	97.429
Barrier Type (0-Wall, 1-Berm): 0.0   feet	Bar	rier Heiaht:	0.0 feet			М	edium 1	rucks:	84.8%	4.9%	10.3%	1.849
Centerline Dist. to Observer: 100.0   feet   Content			0.0			- 1	Heavy T	rucks:	86.5%	2.7%	10.8%	0.749
Centerline Dist. to Observer: 100.0   feet Barrier Distance to Observer: 0.0   feet Observer Height (Above Pad): 5.0   feet Pad Elevation: 0.0   feet Road	Centerline Dis	st. to Barrier:	100.0 feet		N	nise S	ource F	levatio	ns (in fe	et)		
Barrier Distance to Observer: 0.0 feet   Medium Trucks: 4.000   Heavy Trucks: 8.006   Grade Adjustment: 0.0 feet   Heavy Trucks: 96.607   Heavy Trucks: 96.608   Heavy	Centerline Dist.	to Observer:	100.0 feet		-	0.00 0				,		
Diserver Height (Above Pad):   5.0   feet   Pad Elevation:   0.0   feet   Cane Equivalent Distance (in feet   D.0.0   feet   D.0.0	Barrier Distance	to Observer:	0.0 feet			Mediu						
Pad Elevation: 0.0 feet	Observer Height (	Above Pad):	5.0 feet							Grade Ad	iustment	0.0
Road Grade:												
Left View:					L	ane Eq				eet)		
Right View: 90.0 degrees	F											
FHWA Noise Model Calculations   VehicleType   REMEL   Traffic Flow   Distance   Finite Road   Fresnel   Barrier Atten   Berm Att												
VehicleType		Right View:	90.0 degree	es		Heav	ry Truci	ks: 96	6.608			
Autos: 68.46	FHWA Noise Mode											
Medium Trucks:         79.45         -18.15         -4.39         -1.20         -4.97         0.000         0.           Heavy Trucks:         84.25         -22.11         -4.39         -1.20         -5.16         0.000         0.           Unmitigated Noise Levels (without Topo and barrier attenuation)         VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         62.0         60.1         58.3         52.2         60.9         6.9           Medium Trucks:         55.7         54.2         47.8         46.3         54.8         5.8           Heavy Trucks:         56.6         55.1         46.1         47.3         55.7         5.7	VehicleType	REMEL		Dista		Finite				Barrier Att	en Ber	m Atten
Heavy Trucks: 84.25												0.00
Unmitigated NoIse Levels (without Topo and barrier attenuation)           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         62.0         60.1         58.3         52.2         60.9         6           Medium Trucks:         55.7         54.2         47.8         46.3         54.8         5           Heavy Trucks:         56.6         55.1         46.1         47.3         55.7         5												0.00
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         62.0         60.1         58.3         52.2         60.9         6           Medium Trucks:         55.7         54.2         47.8         46.3         54.8         5           Heavy Trucks:         56.6         55.1         46.1         47.3         55.7         5	Heavy Trucks:	84.25	-22.11		-4.39		-1.20		-5.16	0.0	000	0.00
Autos:         62.0         60.1         58.3         52.2         60.9         6           Medium Trucks:         55.7         54.2         47.8         46.3         54.8         5           Heavy Trucks:         56.6         55.1         46.1         47.3         55.7         5												
Medium Trucks:         55.7         54.2         47.8         46.3         54.8         54.8           Heavy Trucks:         56.6         55.1         46.1         47.3         55.7         55.7	,,				eq Eve							
Heavy Trucks: 56.6 55.1 46.1 47.3 55.7 5			-								-	61.
												55.
	Heavy Trucks:		-	55.1 62.0		46.1 58.9				55.7 62.8		55. 63.
						30.9		54		02.0	,	63.
Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA	Centerline Distanc	e to Noise Co	intour (in feet	,	70 dl	BA	65	dBA	6	0 dBA	55	dBA
Ldn: 33 71 153 329				Ldn:								
CNEL: 35 76 164 353											_	

	FHV	WA-RD-77-108	HIGHWAY	NOISE P	REDICTIO	N MODE	L		
Road Nam	io: Existing Wi ne: San Miguel nt: East of Ava				.,	lame: NN mber: 82°			
SITE	SPECIFIC IN	IPUT DATA			N	DISE MO	DEL INPUT	ΓS	
Highway Data				Site Cor	nditions (	Hard = 10	, Soft = 15)		
Average Daily	Traffic (Adt): 2	24,300 vehicles				Aut	tos: 15		
,	Percentage:	10%		Me	edium True	cks (2 Axle	es): 15		
Peak H	lour Volume:	2,430 vehicles		He	eavy Truck	s (3+ Axle	es): 15		
Ve	hicle Speed:	45 mph		Vehicle					
Near/Far La	ne Distance:	52 feet				Da	y Evening	N.C. and a state of	D-#-
Site Data				ver	icleType		5% 12.9%	-	Daily 97.42%
					All ledium Tri.		.5% 12.9% .8% 4.9%		1.84%
	rrier Height:	0.0 feet			Heavy Tru		.5% 4.5% .5% 2.7%		0.74%
Barrier Type (0-W		0.0		· '	leavy III	chs. 00	.576 2.176	10.076	0.7476
Centerline Dist.		100.0 feet		Noise S	ource Ele	vations (i	in feet)		
		100.0 feet			Autos:	2.000	)		
Barrier Distance		0.0 feet		Mediu	m Trucks.	4.000	)		
Observer Height (	ad Flevation:	5.0 feet 0.0 feet		Hear	vy Trucks:	8.006	Grade A	djustment	0.0
	ad Elevation: ad Flevation:	0.0 feet		I ano Fo	uivalent	Distance	(in foot)		
	au cievalion. Road Grade:	0.0 reet 0.0%		Lane Ly	Autos		,		
	Left View:	-90.0 degree		Mediu	m Trucks.				
	Right View:	90.0 degree			vy Trucks:		-		
FHWA Noise Mod	el Calculation	s							
VehicleType	REMEL	Traffic Flow	Distance		Road	Fresnel	Barrier A	tten Ber	m Atten
Autos:	68.46	1.91	-4.	39	-1.20	-4.	<b>87</b> 0.	.000	0.000
Medium Trucks:	79.45	-15.33	-4.	39	-1.20	-4.	97 0.	.000	0.000
Heavy Trucks:	84.25	-19.29	-4.	39	-1.20	-5.	16 0.	.000	0.000
Unmitigated Nois		-							
VehicleType	Leq Peak Hou			Evening	Leq N	•	Ldn		VEL
Autos:	64		52.9	61.1		55.1	63		64.3
Medium Trucks:	58		7.0	50.7		49.1	57.		57.8
Heavy Trucks:	59		7.9	48.9		50.2	58.		58.6
Vehicle Noise:	66		64.9	61.7		57.0	65	.6	66.0
Centerline Distan	ce to Noise Co	ontour (in feet)	7/	-104	05.4	D4	00 dD4		-10.4
		,	dn:	51	65 d		60 dBA 235		dBA 07
			.an: IFI :	51 54	10:	-	235 253		07 44
		CN	EL:	54	11	'	253	5	44

Tuesday, May 29, 2012

	FHV	VA-RD-77-108	HIGH	1 YAW	NOISE P	REDICT	ION MO	DEL						
Road Nam	io: Existing Wi ne: San Miguel nt: West of Ma	•					Name: lumber:		С					
SITE	SPECIFIC IN	PUT DATA				1	NOISE	MODE	L INPUT	S				
Highway Data					Site Conditions (Hard = 10, Soft = 15)									
Average Daily	Traffic (Adt): 2	22,100 vehicle	s					Autos:	15					
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15					
Peak H	lour Volume:	2,210 vehicle	s		He	avy Tru	cks (3+	Axles):	15					
Ve	hicle Speed:	45 mph			Vehicle	Mix								
Near/Far La	ne Distance:	52 feet				icleType	9	Day	Evening	Night	Daily			
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%			
Bai	rrier Height:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.84%			
Barrier Type (0-W		0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%			
Centerline Dis		100.0 feet			Noise S	ource E	levatio	ns (in fe	eet)					
Centerline Dist.		100.0 feet				Auto	s: 2	.000	,					
Barrier Distance		0.0 feet			Mediu	m Truck	s: 4	.000						
Observer Height (	,	5.0 feet			Hear	y Truck	s: 8	.006	Grade Ad	justmen	t: 0.0			
	ad Elevation:	0.0 feet		F			4 Di-4	/!	f4\					
	ad Elevation:	0.0 feet			Lane Eq	uivaien Auto		.607	reet)					
,	Road Grade: Left View:	0.0%			Modiu	Auto m Truck		.566						
	Right View:	-90.0 degre				n Truck vy Truck		.608						
			53		11001	ry Truck	3. 30	.000						
FHWA Noise Mode														
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fres		Barrier Att		rm Atten			
Autos:	68.46	1.49		-4.3	-	-1.20		-4.87		000	0.000			
Medium Trucks:		-15.75 -19.70		-4.3 -4.3	-	-1.20 -1.20		-4.97 -5.16		000	0.000			
Heavy Trucks:					-	-1.20		-5.16	0.0	J00	0.000			
Unmitigated Noise		-	_			100	Nioht	_	Ldn	1 6	NEL			
VehicleType Autos:	Leq Peak Hou		62.5	Leq E	vening 60.7	,	Night 54.	6	Lan 63.3		NEL 63.9			
Medium Trucks:	58		56.6		50.2		48.	-	57.2		57.4			
Heavy Trucks:	59		57.5		48.5		49.		58.		58.2			
Vehicle Noise:	66		64.5		61.3		56.		65.3		65.6			
Centerline Distant	ce to Noise Co	ntour (in feet	)											
		•		70	dBA	65	dBA	6	60 dBA	55	5 dBA			
			Ldn:	4	8	1	03		221		476			
		C	NEL:	5	i1	1	10		237		511			

Tuesday,	May	29,	2012

	RD-77-108 HIG	HWAY I	NOISE P	REDICTION	ON MOI	DEL			
Scenario: Existing With P Road Name: Coast Highway Road Segment: West of Jambo	,			Project i Job Nu	Name: Name: Name: 8				
SITE SPECIFIC INPU	T DATA			N	OISE N	10DE	LINPUTS	3	
Highway Data			Site Con	ditions (	Hard =	10, So	ft = 15)		
Average Daily Traffic (Adt): 60,0	00 vehicles				A	Autos:	15		
Peak Hour Percentage:	10%		Me	dium Tru	cks (2 A	xles):	15		
Peak Hour Volume: 6,0	00 vehicles		He	avy Truc	ks (3+ A	xles):	15		
Vehicle Speed:	45 mph	ŀ	Vehicle	Mix					
Near/Far Lane Distance:	76 feet	F		icleType		Dav	Evening	Night	Daily
Site Data			*011			77.5%	12.9%	9.6%	
Barrier Height:	0.0 feet		Me	edium Tri	ucks:	34.8%	4.9%	10.3%	1.84%
	0.0		F	leavy Tr	ucks:	36.5%	2.7%	10.8%	0.74%
** '	0.0 feet	-							
	0.0 feet	-	Noise So			•	et)		
Barrier Distance to Observer:	0.0 feet			Autos					
Observer Height (Above Pad):	5.0 feet			m Trucks			Crada Adi	uotmo nt	
Pad Elevation:	0.0 feet		Heav	y Trucks	: 8.0	106	Grade Adj	usimeni	0.0
Road Elevation:	0.0 feet		Lane Eq	uivalent	Distanc	e (in f	eet)		
Road Grade:	0.0%			Autos	: 92.5	47			
Left View: -9	0.0 degrees		Mediui	m Trucks	: 92.5	504			
Right View: 9	0.0 degrees		Heav	y Trucks	92.5	547			
FHWA Noise Model Calculations									
// .		istance		Road	Fresn		Barrier Atte		m Atten
Autos: 68.46	5.83	-4.1		-1.20		4.87	0.0		0.00
Medium Trucks: 79.45	-11.41	-4.1		-1.20		4.97	0.0		0.000
Heavy Trucks: 84.25	-15.36	-4.1		-1.20		-5.16	0.0	00	0.000
	Topo and barr	ier atter							
Unmitigated Noise Levels (without	•						I dn	l Ci	VEL
VehicleType Leq Peak Hour	Leq Day	Leq E	vening	Leq I					
VehicleType Leq Peak Hour Autos: 69.0	Leq Day 67.1		65.3	Leq I	59.3		67.9		
VehicleType Leq Peak Hour Autos: 69.0 Medium Trucks: 62.7	Leq Day 67.1 61.2		65.3 54.9	Leq I	59.3 53.3		67.9 61.8		62.0
VehicleType Leq Peak Hour  Autos: 69.0  Medium Trucks: 62.7  Heavy Trucks: 63.6	Leq Day 67.1 61.2 62.2		65.3 54.9 53.1	Leq I	59.3 53.3 54.4		67.9 61.8 62.7		62.6 62.8
VehicleType Leq Peak Hour  Autos: 69.0  Medium Trucks: 62.7  Heavy Trucks: 63.6  Vehicle Noise: 70.8	Leq Day 67.1 61.2 62.2 69.1		65.3 54.9	Leq I	59.3 53.3		67.9 61.8		62.6 62.8
VehicleType Leq Peak Hour  Autos: 69.0  Medium Trucks: 62.7  Heavy Trucks: 63.6	Leq Day 67.1 61.2 62.2 69.1		65.3 54.9 53.1	65 c	59.3 53.3 54.4 61.2		67.9 61.8 62.7		68.5 62.0 62.8 70.2
VehicleType Leq Peak Hour  Autos: 69.0  Medium Trucks: 62.7  Heavy Trucks: 63.6  Vehicle Noise: 70.8	Leq Day 67.1 61.2 62.2 69.1	70	65.3 54.9 53.1 65.9		59.3 53.3 54.4 61.2		67.9 61.8 62.7 69.8	55	62.0 62.8 70.2

	FHV	VA-RD-77-108	HIGHV	VAY NO	DISE P	REDICT	ION M	ODEL			
	o: Existing Wi e: San Miguel at: East of Mad	•				.,	t Name. Number	8211	0		
SITE S	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				S	ite Cor	nditions	(Hard	= 10, Sc	ft = 15)		
Average Daily	Traffic (Adt): 1	11,800 vehicles	3					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Ti	rucks (2	Axles):	15		
Peak H	our Volume:	1,180 vehicles	3		He	eavy Tru	icks (3+	Axles):	15		
Vel	hicle Speed:	45 mph		v	ehicle	Mix					
Near/Far Lar	ne Distance:	52 feet			Veh	icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.429
Rar	rier Height:	0.0 feet			М	edium 7	rucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-Wa	all, 1-Berm):	0.0				Heavy 7	rucks:	86.5%	2.7%	10.8%	0.749
Centerline Dis		100.0 feet		N	oise S	ource E	levatio	ns (in fe	et)		
Centerline Dist. t		100.0 feet				Auto	os: 2	2.000			
Barrier Distance t		0.0 feet			Mediu	m Truck	(S: 4	1.000			
Observer Height ()		5.0 feet			Hear	vy Truck	(S: 8	3.006	Grade Ad	justment	0.0
	d Elevation:	0.0 feet		_		·					
	d Elevation:	0.0 feet		L	ane Eq			nce (in t	eet)		
F	Road Grade:	0.0%				Auto		6.607			
	Left View:	-90.0 degree				m Truck		5.566			
	Right View:	90.0 degree	es		Hea	vy Truck	(S: 9t	6.608			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dista		Finite	Road	Fres		Barrier Att		m Atten
Autos:	68.46	-1.23		-4.39		-1.20		-4.87		000	0.00
Medium Trucks:	79.45	-18.47		-4.39		-1.20		-4.97		000	0.00
Heavy Trucks:	84.25	-22.43		-4.39		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise							A II audust	-	Lata		
VehicleType Autos:	Leq Peak Hou 61		59.7	Leq Eve	58.0		Night 51	0	Ldn 60.5		NEL 61.
Medium Trucks:	55		53.9		47.5		46		54.4	-	54.
Heavy Trucks:	56		54.8		47.5		40		55.4		55.
Vehicle Noise:	63		61.7		58.6		53		62.4		62.
Centerline Distance	e to Noise Co	ontour (in feet	)								
				70 dE	ВА		dBA	6	0 dBA		dBA
			Ldn:	31			68		145	3	13
			IFI:	34			72		156		36

FRWA-RD-77-1	108 HIGHWA	Y NOISE PI	REDICTION	MODEL			
Scenario: Existing With Project			Project Na	me: NNCF	C		
Road Name: Coast Highway			Job Num	ber: 8211			
Road Segment: East of Jamboree							
SITE SPECIFIC INPUT DAT	A				L INPUT	S	
Highway Data		Site Con	ditions (H	ard = 10, S	oft = 15)		
Average Daily Traffic (Adt): 47,000 vehi	icles			Autos	15		
Peak Hour Percentage: 10%		Me	dium Truck	s (2 Axles)	15		
Peak Hour Volume: 4,700 vehi	icles	He	avy Trucks	(3+ Axles)	15		
Vehicle Speed: 45 mph		Vehicle	Mix				
Near/Far Lane Distance: 76 feet		Veh	icleType	Day	Evening	Night	Daily
Site Data			Aut	os: 77.5%	6 12.9%	9.6%	97.42%
Barrier Height: 0.0 fee	et .	M	edium Truc	ks: 84.89	6 4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm): 0.0		· ·	Heavy Truc	ks: 86.5%	6 2.7%	10.8%	0.74%
Centerline Dist. to Barrier: 100.0 fee	et	Noise So	ource Eleva	ations (in t	eet)		
Centerline Dist. to Observer: 100.0 fee	et .		Autos:	2.000	,		
Barrier Distance to Observer: 0.0 fee	et	Mediu	m Trucks:	4.000			
Observer Height (Above Pad): 5.0 fee	et		y Trucks:	8.006	Grade Ad	liustment.	0.0
Pad Elevation: 0.0 fee	et					,	
Road Elevation: 0.0 fee	et	Lane Eq	uivalent Di		feet)		
Road Grade: 0.0%			Autos:	92.547			
Left View: -90.0 deg	grees		m Trucks:	92.504			
Right View: 90.0 deg	grees	Heav	y Trucks:	92.547			
FHWA Noise Model Calculations		-1					
VehicleType REMEL Traffic Flo				Fresnel	Barrier Att		m Atten
		4.11	-1.20	-4.87		000	0.000
Medium Trucks: 79.45 -12.		4.11	-1.20	-4.97		000	0.000
Heavy Trucks: 84.25 -16.	· · <del>-</del>	4.11	-1.20	-5.16	0.0	000	0.000
Unmitigated Noise Levels (without Topo a							
VehicleType Leq Peak Hour Leq I	-	q Evening	Leq Nig		Ldn		VEL
Autos: 67.9	66.0	64.3		58.2	66.8	-	67.4
Medium Trucks: 61.7	60.2	53.8		52.3	60.7		60.9
Heavy Trucks: 62.5	61.1	52.1		53.3	61.7		61.8
	68.0	64.9		60.2	68.7	/	69.2
Vehicle Noise: 69.8							
		70 dPA	65 dD	4	60 ADA	55	AD A
Vehicle Noise: 69.8		70 dBA	65 dB	4	60 dBA		dBA
Vehicle Noise: 69.8		70 dBA 82 88	65 dB <sub>0</sub>	4	60 dBA 382 409	8	dBA 22 82

Tuesday, May 29, 2012

	EU\A	/A-RD-77-108	пісп	WAV N	IOISE DE	EDICTI	ON MO	DEI		_	
Road Nan	rio: Existing Wit ne: Coast Highw nt: West of Nev	h Project vay	THOT	WAII	NOISE FI	Project		NNCP	С		
SITE	SPECIFIC IN	PUT DATA				N	OISE N	ЛОDE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt): 4	3,600 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2 A	(xles	15		
Peak F	lour Volume:	4,360 vehicle	s		He	avy Truc	ks (3+ A	(xles	15		
Vé	ehicle Speed:	45 mph			Vehicle I	Miv					
Near/Far La	ne Distance:	76 feet		H		icleType		Dav	Evening	Night	Daily
Site Data				-				77.5%		9.6%	
D-	rrier Heiaht:	0.0 feet			Me	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-V		0.0			F	leavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
	ist. to Barrier:	100.0 feet		-	Noise Sc	urco El	ovation	c (in f	not)		
Centerline Dist.	to Observer:	100.0 feet		H	NOISE SC	Autos		000	eei)		
Barrier Distance	to Observer:	0.0 feet			Modiuu	n Trucks		000			
Observer Height	(Above Pad):	5.0 feet				y Trucks		006	Grade Ad	iuetman	t· 0.0
P	ad Elevation:	0.0 feet			Heav	y Trucks	s. 0.1	500	Orace Au	ustricii	. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalent	Distant	ce (in	feet)		
	Road Grade:	0.0%				Autos	92.	547			
	Left View:	-90.0 degree	es		Mediur	n Trucks	92.	504			
	Right View:	90.0 degree	es		Heav	y Trucks	92.	547			
FHWA Noise Mod	lel Calculations	:									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fresn	iel .	Barrier Att	en Be	rm Atten
Autos:	68.46	4.44		-4.1	1	-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45	-12.79		-4.1	1	-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-16.75		-4.1	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Nois	e Levels (witho	ut Topo and	barrie	r atter	nuation)						
VehicleType	Leq Peak Hou	Leq Day	′	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	67.	6	65.7		63.9		57.9	)	66.5	5	67.1
Medium Trucks:	61.	3	59.8		53.5		51.9	)	60.4	Į.	60.6
Heavy Trucks:	62.	2	60.8		51.7		53.0	)	61.3	3	61.5
Vehicle Noise:	69.	4	67.7		64.5		59.9	)	68.4	1	68.9
Centerline Distan	ce to Noise Co	ntour (in feet	)								
					dBA	65 (	dBA	- (	60 dBA	55	5 dBA
			Ldn:		8		88		363		782
		CI	VEL:	8	14	18	31		389		339

_	FH	WA-RD-77-108	HIGHWA	Y NOISI	E PREDIC	TION MO	DDEL		_	_			
Road Nan	rio: Existing W ne: Coast High ent: West of Av	/ith Project hway			Proje	ct Name: Number:	NNCP	С					
SITE	SPECIFIC II	NPUT DATA				NOISE	MODE	L INPUTS	3				
Highway Data				Site	Site Conditions (Hard = 10, Soft = 15)								
Peak Hour	Traffic (Adt): Percentage: Hour Volume:	34,500 vehicle 10% 3,450 vehicle			Medium T			15 15 15					
Ve	ehicle Speed:	45 mph		Vehi	cle Mix								
Near/Far La	ne Distance:	76 feet			VehicleTy	oe	Day	Evening	Night	Daily			
Site Data  Ba  Barrier Type (0-W	rrier Height: Vall. 1-Berm):	0.0 feet 0.0			Medium Heavy	Autos: Trucks: Trucks:	77.5% 84.8% 86.5%	4.9%	9.6% 10.3% 10.8%	1.84%			
Centerline Di	ist. to Barrier:	100.0 feet		Nois	e Source	Elovatio	ne (in fe	not)					
Centerline Dist. Barrier Distance Observer Height	to Observer:	0.0 feet 5.0 feet 0.0 feet		Me		tos: 2 ks: 4	.000 .000 .006	Grade Adj	ustmen	t: 0.0			
-	ad Elevation:	0.0 feet		Lane	Equivale	nt Distar	nce (in t	feet)					
	Road Grade: Left View: Right View:	0.0% -90.0 degree 90.0 degree			Au dium Trud leavy Trud	ks: 92	.547 .504 .547						
FHWA Noise Mod	lel Calculation	าร											
VehicleType	REMEL	Traffic Flow	Distan	ce Fi	nite Road	Fres	nel	Barrier Atte	en Be	rm Atten			
Autos:	68.46	3.43		4.11	-1.20	)	-4.87	0.0	00	0.000			
Medium Trucks:	79.45	-13.81		4.11	-1.20	)	-4.97	0.0	00	0.000			
Heavy Trucks:	84.25	-17.77		-4.11	-1.20	)	-5.16	0.0	00	0.000			
Unmitigated Nois	e Levels (with	hout Topo and	barrier a	ttenuatio	on)								
VehicleType	Leq Peak Ho	ur Leq Day	/ Le	q Evenin	g Le	q Night		Ldn	C	NEL			
Autos:			64.7		2.9	56		65.5		66.1			
Medium Trucks:	-		58.8		2.5	50		59.4		59.6			
Heavy Trucks:			59.7		0.7	52	-	60.3		60.4			
Vehicle Noise:	6	8.4	66.7	6	3.5	58	.8	67.4		67.8			
Centerline Distan	ce to Noise C	ontour (in feet											
				70 dBA	6	5 dBA	6	i0 dBA		dBA			
			Ldn:	67		144		310		669			
		CI	VEL:	72		155		333		718			

	FH\	WA-RD-77-108	HIGHWAY	NOISE	PREDICT	ION MC	DDEL			
	o: Existing W e: Coast High nt: East of Ne	nway				Name: lumber:		C		
SITE S	SPECIFIC IN	NPUT DATA			1	NOISE	MODE	L INPUT	S	
Highway Data				Site (	Conditions	(Hard :	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	35,800 vehicles	3				Autos.	15		
Peak Hour	Percentage:	10%			Medium Tr	ucks (2	Axles).	15		
Peak H	our Volume:	3,580 vehicles	3		Heavy Tru	cks (3+	Axles).	15		
Vei	hicle Speed:	45 mph		Vehic	le Mix					
Near/Far Lar	ne Distance:	76 feet			/ehicleType	9	Day	Evening	Night	Daily
Site Data						Autos:	77.5%	6 12.9%	9.6%	97.42%
Rar	rier Height:	0.0 feet			Medium T	rucks:	84.89	6 4.9%	10.3%	1.84%
Barrier Type (0-W		0.0			Heavy T	rucks:	86.5%	6 2.7%	10.8%	0.74%
Centerline Dis	t. to Barrier:	100.0 feet		Noise	Source E	lovation	ne (in f	ioot)		
Centerline Dist.	to Observer:	100.0 feet		710/30	Auto		.000	001)		
Barrier Distance	to Observer:	0.0 feet		Ma	dium Truck		.000			
Observer Height (	Above Pad):	5.0 feet			eavy Truck		.006	Grade Ad	iustment	0.0
Pa	d Elevation:	0.0 feet								
Roa	d Elevation:	0.0 feet		Lane	Equivalen		_ •	feet)		
F	Road Grade:	0.0%			Auto		.547			
	Left View:	-90.0 degree		1	dium Truck		.504			
	Right View:	90.0 degree	es	Н	eavy Truck	s: 92	.547			
FHWA Noise Mode	el Calculation	IS								
VehicleType	REMEL	Traffic Flow	Distance	e Fii	nite Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	68.46	3.59	-4	.11	-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45	-13.65	-4	.11	-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-17.61	-4	.11	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	Levels (with			enuatio						
VehicleType	Leq Peak Ho	ur Leq Day	Leq	Evenin	g Leq	Night		Ldn		NEL
Autos:			64.8		3.1	57.		65.6		66.2
Medium Trucks:			59.0		2.6	51.		59.5		59.8
Heavy Trucks:	61	1.3 5	59.9	5	0.9	52.	.1	60.5	5	60.6
Vehicle Noise:	68	3.6	66.8	6	3.7	59.	.0	67.5	5	68.0
Centerline Distance	e to Noise C	ontour (in feet)								

Ldn: CNEL:

Tuesday, May 29, 2012

	FHW	/A-RD-77-108	HIGHV	VAY N	OISE PF	REDICTION	ON M	ODEL			
Scenario: Exist	ting Wit	h Project				Project I	Name.	NNCF	C		
Road Name: Coas	st Highv	way				Job Nu	ımber.	8211			
Road Segment: East	of Ava	cado									
SITE SPECIF	FIC IN	PUT DATA							L INPUT	S	
Highway Data				5	Site Con	ditions (	Hard	= 10, S	oft = 15)		
Average Daily Traffic (	Adt): 3	6,400 vehicles	3					Autos	15		
Peak Hour Percent	age:	10%			Me	dium Tru	cks (2	Axles)	15		
Peak Hour Volu	ıme:	3,640 vehicles	3		He	avy Truc	ks (3+	Axles)	15		
Vehicle Sp	eed:	45 mph		1	/ehicle l	Mix					
Near/Far Lane Dista	nce:	76 feet		F		icleType		Day	Evening	Night	Daily
Site Data						Α	utos:	77.59	6 12.9%	9.6%	97.42%
Barrier He	iaht:	0.0 feet			Me	edium Tru	ucks:	84.89	6 4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Be		0.0			F	Heavy Tru	ucks:	86.59	6 2.7%	10.8%	0.74%
Centerline Dist. to Ba	rrier:	100.0 feet		,	loise So	ource Ele	evatio	ns (in t	eet)		
Centerline Dist. to Obse	rver:	100.0 feet		H		Autos		2.000	,		
Barrier Distance to Obse	rver:	0.0 feet			Mediuu	m Trucks	-	1.000			
Observer Height (Above F	Pad):	5.0 feet				v Trucks		3.006	Grade Ad	iustment	0.0
Pad Eleva	tion:	0.0 feet									
Road Eleva	ation:	0.0 feet		L	ane Eq	uivalent			feet)		
Road Gr	rade:	0.0%				Autos		2.547			
Left V		-90.0 degree	s			m Trucks		2.504			
Right V	/iew:	90.0 degree	es		Heav	y Trucks	: 92	2.547			
FHWA Noise Model Calcu	ılations	3									
VehicleType REM	1EL	Traffic Flow	Dista	nce	Finite	Road	Fres	snel	Barrier Att	en Ber	m Atten
Autos:	68.46	3.66		-4.11		-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45	-13.58		-4.11		-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-17.53		-4.11		-1.20		-5.16	0.0	000	0.000
Unmitigated Noise Levels	(witho	out Topo and	barrier	atteni	uation)						
VehicleType Leq Pe				Leq Ev		Leq N			Ldn		NEL
Autos:	66.		64.9		63.1		57		65.		66.3
Medium Trucks:	60.		59.1		52.7		51		59.0	-	59.8
Heavy Trucks:	61.		0.0		50.9		52		60.0		60.7
Vehicle Noise:	68.	6	66.9		63.7		59	.1	67.	6	68.1
Centerline Distance to No	ise Co	ntour (in feet)	1								
			L	70 d		65 a			60 dBA		dBA
			Ldn:	69		14	-		322		93
		C/V	IFI:	74	1	16	i0		345	7	'44

	FH	WA-RD-77-108	HIGH	1 YAW	NOISE PF	EDICT	ION MO	DDEL			
	o: Existing W e: Coast High nt: West of Ma	iway				.,	t Name: lumber:		PC .		
SITE S	SPECIFIC IN	NPUT DATA				1	NOISE	MODE	EL INPUT	S	
Highway Data					Site Con	ditions	(Hard =	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	36,500 vehicles	S					Autos	: 15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles)	: 15		
Peak H	our Volume:	3,650 vehicles	3		Hei	avy Tru	cks (3+	Axles)	: 15		
Vei	hicle Speed:	45 mph		F	Vehicle I	/lix					
Near/Far Lai	ne Distance:	76 feet		F		cleType	9	Day	Evening	Night	Daily
Site Data							Autos:	77.59	-	9.69	
Rai	rier Heiaht:	0.0 feet			Me	dium T	rucks:	84.89	6 4.9%	10.39	% 1.84%
Barrier Type (0-W		0.0			F	leavy T	rucks:	86.59	6 2.7%	10.89	% 0.74%
Centerline Dis	st. to Barrier:	100.0 feet		-	Noise Sc	urco F	levation	ne (in i	foot)		
Centerline Dist.	to Observer:	100.0 feet		F	110/36 00	Auto		.000	ccij		
Barrier Distance	to Observer:	0.0 feet			Mediur	n Truck		.000			
Observer Height (.	Above Pad):	5.0 feet				y Truck		.006	Grade Ad	iustmei	nt: 0.0
Pa	ad Elevation:	0.0 feet			11Cav	y Truch		.000	Orado ria,	uoumon	и. о.о
Roa	ad Elevation:	0.0 feet		L	Lane Equ	ıivalen			feet)		
F	Road Grade:	0.0%				Auto	s: 92	.547			
	Left View:	-90.0 degree	es			n Truck		.504			
	Right View:	90.0 degree	es		Heav	y Truck	s: 92	.547			
FHWA Noise Mode	el Calculation	ıs		,							
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite		Fres		Barrier Att		erm Atten
Autos:	68.46			-4.1	•	-1.20		-4.87		000	0.000
Medium Trucks:	79.45			-4.1	•	-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-17.52		-4.1	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	r atter	nuation)						
	Leq Peak Ho		_	Leq E	vening	Leq	Night		Ldn		CNEL
Autos:			64.9		63.2		57.		65.7		66.3
Medium Trucks:			59.1		52.7		51.	_	59.6	-	59.9
Heavy Trucks:			60.0		51.0		52.	_	60.6		60.7
Vehicle Noise:		***	66.9		63.8		59.	1	67.6	6	68.1
Centerline Distance	ce to Noise C	ontour (in feet,	)								
			L		dBA		dBA		60 dBA	5	5 dBA
			Ldn:		i9		50		322		694
		CI	VEL:	7	4	1	61		346		745

	гпии	A-RD-77-108	HIGHW	AY NO	DISE PE	REDICTION	ON MOI	DEL					
Scenario: Road Name: Road Segment:	Jamboree	/ithout Project				Project i Job Nu	Name: I Imber: 8		С				
	PECIFIC INF	PUT DATA				N	OISE N	/IODE	L INPUTS	5			
Highway Data				S	ite Con	ditions (	Hard =	10, So	oft = 15)				
Average Daily Tr	affic (Adt): 5	2,200 vehicles					,	Autos:	15				
Peak Hour Pe	ercentage:	10%			Me	dium Tru	cks (2 A	(xles	15				
Peak Hou	ır Volume:	5,220 vehicles			Heavy Trucks (3+ Axles): 15								
Vehic	cle Speed:	45 mph		V	ehicle i	Miv							
Near/Far Lane	Distance:	76 feet		-		icleType		Dav	Evening	Night	Daily		
Site Data					****			77.5%	-	9.6%	,		
Borri	er Height:	0.0 feet			Me	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%		
Barrier Type (0-Wali		0.0 leet			F	leavv Tr	ucks:	86.5%	2.7%	10.8%	0.74%		
Centerline Dist.		100.0 feet				,							
Centerline Dist. to	Ν	Noise Source Elevations (in feet)  Autos: 2.000											
Barrier Distance to		100.0 feet 0.0 feet				Autos							
Observer Height (At		5.0 feet				m Trucks		000					
	Flevation:	0.0 feet			Heav	y Trucks	: 8.0	006	Grade Adj	ustment	: 0.0		
	Elevation:	0.0 feet		L	ane Eq	uivalent	Distanc	e (in f	feet)				
Ro	ad Grade:	0.0%				Autos	: 92.	547					
	Left View:	-90.0 degree	s		Medium Trucks: 92.504								
F	Right View:	90.0 degree			Heav	y Trucks	92.	547					
FHWA Noise Model	Calculations												
VehicleType	REMEL	Traffic Flow	Distar	псе	Finite	Road	Fresn	el .	Barrier Atte	en Ber	m Atten		
Autos:	68.46	5.23		-4.11		-1.20		-4.87	0.0	00	0.00		
Medium Trucks:	79.45	-12.01		-4.11		-1.20		-4.97	0.0	00	0.000		
Heavy Trucks:	84.25	-15.97		-4.11		-1.20		-5.16	0.0	00	0.000		
neavy Trucks.				-44	(ation								
Unmitigated Noise L	•		$\overline{}$					_		T -			
Unmitigated Noise L	eq Peak Hour	Leq Day	Le	eq Eve	ening	Leq I			Ldn		NEL		
VehicleType Lo	eq Peak Hour 68.4	Leq Day	Le 66.5		ening 64.7	Leq I	58.7		67.3		67.9		
VehicleType Lo Autos: Medium Trucks:	eq Peak Hour 68.4 62.	Leq Day	66.5 60.6		64.7 54.3	Leq I	58.7 52.7		67.3 61.2		67.9 61.4		
VehicleType Lo	eq Peak Hour 68.4	Leq Day  1 (6)	Le 66.5		ening 64.7	Leq I	58.7		67.3		67. 61. 62.		
VehicleType Lu  VehicleType Lu  Autos: Medium Trucks: Heavy Trucks: Vehicle Noise:	eq Peak Hour 68.4 62.7 63.0 70.2	Leq Day  Leq Day  (1) (2)	66.5 60.6 61.5		64.7 54.3 52.5	Leq I	58.7 52.7 53.8		67.3 61.2 62.1		67.9 61.4 62.2		
Vehicle Type Lo Autos: Medium Trucks: Heavy Trucks:	eq Peak Hour 68.4 62.7 63.0 70.2	Leq Day  Leq Day  (1) (2)	66.5 60.6 61.5		64.7 54.3 52.5 65.3	Leq I	58.7 52.7 53.8 60.6	i	67.3 61.2 62.1		67.9 61.4 62.2 69.6		
VehicleType Lu  VehicleType Lu  Autos: Medium Trucks: Heavy Trucks: Vehicle Noise:	eq Peak Hour 68.4 62.7 63.0 70.2	Leq Day Leq Da	66.5 60.6 61.5	eq Eve	64.7 54.3 52.5 65.3		58.7 52.7 53.8 60.6	i	67.3 61.2 62.1 69.2	55	67.9 61.4 62.1 69.0		

	FH	WA-RD-77-108	HIGHV	VAY NO	DISE PR	EDICTIO	ON MC	DEL			
	o: Existing W e: Coast High nt: East of Ma	nway				Project I Job Nu					
SITE S	SPECIFIC II	NPUT DATA				N	DISE	MODE	L INPUT	S	
Highway Data				Si	ite Con	ditions (	Hard =	= 10, Sc	ft = 15)		
Average Daily	Traffic (Adt):	50,300 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Med	dium Trud	cks (2	Axles):	15		
Peak H	our Volume:	5,030 vehicle	s		Hea	avy Truck	ks (3+	Axles):	15		
Vel	hicle Speed:	45 mph		Ve	ehicle N	1ix					
Near/Far Lar	ne Distance:	76 feet			Vehi	cleType		Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	12.9%	9.6%	97.429
Bar	rier Height:	0.0 feet			Me	dium Tru	ıcks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-Wa	all, 1-Berm):	0.0			Н	leavy Tru	icks:	86.5%	2.7%	10.8%	0.749
Centerline Dis		100.0 feet		N	oise So	urce Ele	vation	ıs (in fe	et)		
Centerline Dist. t		100.0 feet				Autos	: 2.	.000			
Barrier Distance t		0.0 feet			Mediun	n Trucks.	: 4.	.000			
Observer Height (		5.0 feet			Heav	Trucks:	: 8.	.006	Grade Adj	iustment	0.0
	nd Elevation:	0.0 feet		1.	ano Eau	iivalent i	Dietan	co (in t	inot)		
	Road Grade:	0.0 feet 0.0%		Le	arie Lyt	Autos		.547	eei)		
,	l eft View:	-90.0 degre	00		Mediun	n Trucks		.504			
	Right View:	90.0 degre				y Trucks:		.547			
FHWA Noise Mode	el Calculation	15									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	68.46	5.06		-4.11		-1.20		-4.87	0.0	000	0.00
Medium Trucks:	79.45			-4.11		-1.20		-4.97		000	0.00
Heavy Trucks:	84.25			-4.11		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise								1			
VehicleType Autos:	Leq Peak Ho	ur Leq Day	66.3	Leq Eve	64.5	Leq N	lignt 58.	_	Ldn 67.1		NEL 67.
Medium Trucks:	-	2.0	60.5		54.1		52.	-	61.0		61.
Heavy Trucks:	-	2.8	61.4		52.4		53.	-	62.0		62.
Vehicle Noise:		0.0	68.3		65.2		60.		69.0		69.
Centerline Distance	e to Noise C	ontour (in feet	t)								
		•		70 dE	BA	65 d	BA	6	0 dBA	55	dBA
			Ldn:	86 185 399		8	60				
	CNEL:					92 199 428 93					

Tuesday, May 29, 2012

	FHW	A-RD-77-108	HIGHWA'	Y NOISE PI	REDICTION	ON MOI	DEL				
Scenario: Year	r 2016 W	/ithout Project			Project I	Vame: N	NNCP	С			
Road Name: Jam	boree				Job Nu	mber: 8	3211				
Road Segment: East	tbluff to	San Joaquin H	ills								
SITE SPECI	FIC INF	PUT DATA						L INPUT	S		
Highway Data				Site Con	ditions (	Hard =	10, S	oft = 15)			
Average Daily Traffic (	'Adt): 63	3,000 vehicles				A	Autos:	15			
Peak Hour Percent	tage:	10%			dium Tru		,				
Peak Hour Vol	ume: (	6,300 vehicles		He	avy Truci	ks (3+ A	xles):	15			
Vehicle Sp		45 mph		Vehicle	Mix						
Near/Far Lane Dista	ance:	76 feet			icleType		Day	Evening	Night	Daily	
Site Data				Autos: 77.5% 12.9% 9.6% 9							
Barrier He	iaht.	0.0 feet		M	edium Tru	icks:	84.8%	4.9%	10.3%	1.84%	
Barrier Type (0-Wall, 1-Be		0.0		1	Heavy Tru	ıcks:	86.5%	2.7%	10.8%	0.74%	
Centerline Dist. to Ba	rrier:	100.0 feet		Noise So	ource Fle	vations	(in f	eet)			
Centerline Dist. to Obse	erver:	100.0 feet		110,00 01	Autos		•	501)			
Barrier Distance to Obse	erver:	0.0 feet		Modius	m Trucks						
Observer Height (Above I	Pad):	5.0 feet			v Trucks			Grade Ad	liustment	0.0	
Pad Eleva	ation:	0.0 feet		1 Icav	y IIucks.	. 0.0	,00	Orado ria	juotimom	0.0	
Road Eleva	ation:	0.0 feet		Lane Eq	uivalent	Distanc	e (in	feet)			
Road G	rade:	0.0%			Autos.	92.5	547				
Left \	View:	-90.0 degree	s	Mediu	m Trucks	92.5	504				
Right \	View:	90.0 degree	s	Heav	y Trucks	92.5	547				
FHWA Noise Model Calcu	ulations										
VehicleType REM	1EL	Traffic Flow	Distanc	e Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten	
Autos:	68.46	6.04	-4	1.11	-1.20		-4.87	0.0	000	0.000	
Medium Trucks:	79.45	-11.20	-4	1.11	-1.20		-4.97	0.0	000	0.000	
Heavy Trucks:	84.25	-15.15	-4	1.11	-1.20		-5.16	0.0	000	0.000	
Unmitigated Noise Levels	s (witho	ut Topo and I	parrier att	tenuation)							
,, ,	ak Hour			Evening	Leq N	_		Ldn		VEL	
Autos:	69.2	- '	7.3	65.5		59.5		68.1		68.7	
Medium Trucks:	62.9		1.4	55.1		53.5		62.0	-	62.2	
Heavy Trucks:	63.8		2.4	53.3		54.6		62.9	_	63.1	
Vehicle Noise:	71.0	) (	9.3	66.1		61.5		70.0	0	70.5	
Centerline Distance to No	oise Cor	ntour (in feet)							,		
				0 dBA	65 d		(	60 dBA		dBA	
Ldn:				100 215 464 999							
			.an: IFI :	100	21			498		99 072	

	FHW	/A-RD-77-108	HIGH	WAY N	NOISE PE	REDICTION	OM MO	DEL			
Road Nam	io: Year 2016 V ie: Jamboree nt: South of Sai	•				Project I Job Nu			С		
SITE	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data					Site Con	ditions (	Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt): 4	3,000 vehicle	S					Autos.	15		
Peak Hour	Percentage:	10%			Me	dium Tru	cks (2 .	4xles).	15		
Peak H	lour Volume:	4,300 vehicle	S		He	avy Truc	ks (3+ ,	4xles).	15		
Ve	hicle Speed:	45 mph		H	Vehicle i	Wix					
Near/Far La	ne Distance:	76 feet		F		icleType		Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	12.9%	9.6%	97.42%
Rai	rrier Height:	0.0 feet			Me	edium Tru	ıcks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0			F	leavy Tro	ıcks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis		100.0 feet		T.	Noise So	ource Ele	evation	s (in f	eet)		
Centerline Dist.		100.0 feet		f		Autos	: 2.	000			
Barrier Distance		0.0 feet			Mediui	n Trucks	: 4.	000			
Observer Height (	,	5.0 feet			Heav	y Trucks	: 8.	006	Grade Adj	iustmeni	t: 0.0
	ad Elevation:	0.0 feet		-	/ F		D/	/!	64)		
	ad Elevation:	0.0 feet		F	Lane Eq				teet)		
,	Road Grade:	0.0%				Autos n Trucks		547 504			
	Left View:	-90.0 degree				n Trucks y Trucks		504 547			
	Right View:	90.0 degree	es		Heav	y irucks	. 92.	547			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dist	tance		Road	Fresi		Barrier Att		rm Atten
Autos:	68.46	4.38		-4.1	•	-1.20		-4.87	0.0		0.000
Medium Trucks:	79.45	-12.85		-4.1	•	-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-16.81		-4.1	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	•		_								
VehicleType	Leq Peak Hour			Leq E	vening	Leq N			Ldn		NEL
Autos:	67.		65.6		63.9		57.8	-	66.4		67.0
Medium Trucks:	61.3		59.8		53.4		51.9		60.3		60.6
Heavy Trucks: Vehicle Noise:	62.		60.7 67.6		51.7 64.5		52.5 59.5		61.3 68.3		61.4
Centerline Distant					0 7.0		00.		50.0	•	00.0
				70	dBA	65 a	IBA .		60 dBA	55	dBA
			Ldn:	7	7	16	7		360		775
		CI	VEL:	8	13	17	9		386	8	331

	FHV	VA-RD-77-108	HIGHWA	AY NO	OISE PI	REDICT	ION MC	DDEL						
Road Name	o: Year 2016 \ e: Jamboree at: South of Sa	,	!				Name: lumber:	NNCP0 8211	0					
SITE S	SPECIFIC IN	PUT DATA				N	IOISE	MODE	L INPUT	5				
Highway Data				S	ite Con	ditions	(Hard =	= 10, So	ft = 15)					
Average Daily	Traffic (Adt): 4	1,000 vehicles	3		Autos: 15									
Peak Hour I	Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15					
Peak Ho	our Volume:	4,100 vehicles	3		He	avy Tru	cks (3+	Axles):	15					
Vel	nicle Speed:	45 mph		1/	ehicle	Miv								
Near/Far Lar	ne Distance:	76 feet		-		icleType	,	Day	Evening	Night	Dailv			
Site Data				_	V C//		Autos:	77.5%	0	9.6%				
	rier Height:	0.0 feet		_	М	edium T		84.8%		10.3%	1.84%			
Barrier Type (0-Wa		0.0 reet 0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%			
Centerline Dis		100.0 feet				,								
Centerline Dist. t		100.0 feet		٨	loise S	ource E			et)					
Barrier Distance t					Auto		.000							
Observer Height (/		0.0 feet 5.0 feet				m Truck		.000						
	d Elevation:	0.0 feet			Heav	ry Truck	s: 8	.006	Grade Adjustment: 0.0					
	d Flevation:	0.0 feet		L	ane Eq	uivalen	t Distar	nce (in f	eet)					
F	Road Grade:	0.0%				Auto	s: 92	.547						
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 92	.504						
	Right View:	90.0 degree			Heav	y Truck	s: 92	.547						
FHWA Noise Mode	el Calculations	5												
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten			
Autos:	68.46	4.18		-4.11		-1.20		-4.87	0.0	00	0.00			
Medium Trucks:	79.45	-13.06		-4.11		-1.20		-4.97	0.0	00	0.000			
Heavy Trucks:	84.25	-17.02		-4.11		-1.20		-5.16	0.0	100	0.000			
Unmitigated Noise								_						
VehicleType Autos:	Leq Peak Hou			eq Ev	ening		Night	6	Ldn		VEL			
Autos: Medium Trucks:	67. 61.		65.4 59.6		63.7 53.2		57. 51.		66.2 60.1		66.4			
Heavy Trucks:	61.		59.6 60.5		51.5		52.		61.1		61.2			
Vehicle Noise:	69.		67.4		64.3		52.		68.1		68.6			
Centerline Distanc	e to Noise Co	ntour (in feet)	)											
				70 di	BA	65	dBA	6	0 dBA	55	dBA			
				75 162 348 750										
			Ldn:	75	i	1	62		348	7	50			

	FH	WA-RD-77-108	HIGHW	VAY NO	ISE PF	REDICTIO	ON MO	DEL			
	e: Jamboree	Without Project anta Barbara	t			Project I Job Nu			0		
SITE :	SPECIFIC II	NPUT DATA				N	DISE N	ИODE	L INPUT	S	
Highway Data				S	ite Con	ditions (	Hard =	10, Sc	ft = 15)		
Average Daily	Traffic (Adt):	45,100 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	cks (2 /	Axles):	15		
Peak H	lour Volume:	4,510 vehicle	S		He	avy Truck	ks (3+ A	Axles):	15		
Ve	hicle Speed:	45 mph		V	ehicle l	Wix					
Near/Far Lai	ne Distance:	76 feet		_		icleType		Dav	Evening	Night	Daily
Site Data							utos:	77.5%		9.6%	
Rai	rrier Height:	0.0 feet			Me	edium Tru	icks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W	'all, 1-Berm):	0.0			F	leavy Tru	icks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis		100.0 feet		N	oise Sc	ource Ele	vation	s (in fe	eet)		
Centerline Dist.		100.0 feet				Autos	2.	000			
	Barrier Distance to Observer: 0.0 feet						4.	000			
Observer Height (	,	5.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0						
	ad Elevation:	0.0 feet			one Fe	uivalent	Dioton	oo (in i	inas)		
	ad Elevation: Road Grade:	0.0 feet 0.0%		L	ane Eq	Autos:		547	eet)		
,	l eft View:	-90.0 degre			Modiuu	n Trucks		504			
	Right View:	90.0 degre				y Trucks.		547			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresr	nel	Barrier Att	en Be	rm Atten
Autos:	68.46	4.59		-4.11		-1.20		-4.87	0.0	000	0.00
Medium Trucks:	79.45			-4.11		-1.20		-4.97		000	0.00
Heavy Trucks:	84.25			-4.11		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise										1	
VehicleType	Leq Peak Ho			Leq Eve	-	Leq N	_		Ldn		NEL
Autos:	-	7.7	65.8		64.1		58.0		66.6		67.
Medium Trucks:	-	1.5 2.3	60.0 60.9		53.6 51.9		52.1 53.1		60.5 61.5	-	60.8 61.0
Heavy Trucks: Vehicle Noise:		2.3	67.8		64.7		60.0		68.5		69.0
					64.7		00.0	,	68.5	)	09.0
Centerline Distant	ce to Noise C	ontour (in feet		70 dE	BA	65 d	BA	6	0 dBA	55	i dBA
			Ldn:	80		17:	2		371		300
		С	NEL:	86 185 398 858				358			

Tuesday, May 29, 2012

	FH'	WA-RD-77-10	8 HIGI	HWAY I	NOISE P	REDICTION	ON MC	DDEL			
	io: Year 2016	Without Proje	ect			Project I			C		
	e: Jamboree					Job Nu	mber:	8211			
Road Segmer	nt: North of Ci	oast Highway									
	SPECIFIC IN	NPUT DATA	ı						L INPUT	S	
Highway Data					Site Cor	nditions (	Hard :				
Average Daily	Traffic (Adt):	38,600 vehic	les					Autos.	15		
	Percentage:	10%				dium Tru		,			
Peak H	lour Volume:	3,860 vehic	les		He	avy Truc	ks (3+	Axles).	15		
	hicle Speed:	45 mph		ŀ	Vehicle	Mix					
Near/Far Lai	ne Distance:	76 feet		ı	Ver	icleType		Dav	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 9						
Par	rrier Height:	0.0 feet			M	edium Tru	icks:	84.89	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0				Heavy Tro	ıcks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	st. to Barrier:	100.0 feet		ŀ	Noise S	ource Ele	vatio	ns (in f	eet)		
Centerline Dist.	to Observer:	100.0 feet		ŀ	710,00	Autos		.000	001)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Trucks	_	.000			
Observer Height (	Above Pad):	5.0 feet				vy Trucks		.006	Grade Ad	liustment	0.0
Pa	ad Elevation:	0.0 feet		L						,	
Roa	ad Elevation:	0.0 feet		L	Lane Eq	uivalent	Distai	nce (in	feet)		
I	Road Grade:	0.0%				Autos	92	.547			
	Left View:	-90.0 degr	ees		Mediu	m Trucks	: 92	2.504			
	Right View:	90.0 degr	ees		Hear	y Trucks	92	2.547			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Di	stance		Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	68.46			-4.1		-1.20		-4.87		000	0.000
Medium Trucks:	79.45		_	-4.1		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-17.2	8	-4.1	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise											
VehicleType	Leq Peak Ho		,	Leq E	vening	Leq N			Ldn		NEL
Autos:		7.1	65.2		63.4		57		66.0	-	66.6
Medium Trucks:		0.8	59.3		52.9		51		59.9		60.1
Heavy Trucks:	-	1.7	60.2		51.2		52		60.8	_	60.9
Vehicle Noise:		3.9	67.2		64.0		59	.3	67.9	9	68.3
Centerline Distanc	ce to Noise C	ontour (in fe	et)	70	dD1	6F ^	DΛ	1	60 dBA	FF	dBA
			I dn:		70 dBA 65 dBA 72 155			335		'21	
			CNEL:		77	16	-		359		73
			JI VLL.	,	*	10	,		000	,	, ,

Tuesday, May 29, 2012

FI	WA-RD-77-108	HIGHW	AY NO	SE PREDIC	TION M	ODEL			
Scenario: Year 2016 Road Name: Jamboree Road Segment: South of C		t		.,.	t Name Number		С		
SITE SPECIFIC I	NPUT DATA				NOISE	MODE	L INPUT	S	
Highway Data			Sit	e Condition	s (Hard	= 10, Sc	oft = 15)		
Average Daily Traffic (Adt):	12,900 vehicle	:S				Autos:	15		
Peak Hour Percentage:	10%			Medium 7	rucks (2	Axles):	15		
Peak Hour Volume:	1,290 vehicle	es.		Heavy Tr	ucks (3+	- Axles):	15		
Vehicle Speed:	45 mph		Ve	hicle Mix					
Near/Far Lane Distance:	76 feet			VehicleTyp	e	Day	Evening	Night	Daily
Site Data					Autos:	77.5%	12.9%	9.6%	97.42%
Barrier Height:	0.0 feet			Medium	Trucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0			Heavy	Trucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet		No	ise Source	Elevatio	ns (in f	eet)		
Centerline Dist. to Observer:	100.0 feet			Aut	os: 2	2.000			
Barrier Distance to Observer:	0.0 feet			Medium Truc	ks: 4	1.000			
Observer Height (Above Pad):	5.0 feet			Heavy Truc	ks: 8	3.006	Grade Ad	justment	: 0.0
Pad Elevation:	0.0 feet		-						
Road Elevation:	0.0 feet		La	ne Equivale			feet)		
Road Grade:	0.0%			Aut		2.547			
Left View:	-90.0 degre			Medium Truc		2.504			
Right View:	90.0 degre	es		Heavy Truc	KS: 92	2.547			
FHWA Noise Model Calculation									
VehicleType REMEL	Traffic Flow	Distan		Finite Road	Fre		Barrier Att	en Bei	m Atten
Autos: 68.4			-4.11	-1.20		-4.87		000	0.000
Medium Trucks: 79.4			-4.11	-1.20		-4.97		000	0.000
Heavy Trucks: 84.25			-4.11	-1.20	)	-5.16	0.0	000	0.000
Unmitigated Noise Levels (wit									
VehicleType Leq Peak Ho		_	q Ever		q Night		Ldn		NEL
	2.3	60.4		58.6	52		61.2	-	61.8
	6.1	54.5		48.2	46		55.1		55.3
	6.9 4.1	55.5 62.4		46.4 59.2	47 54		56.0 63.1		56.2 63.6
Centerline Distance to Noise C	***			-3.2			55.	•	55.0
Contentine Distance to Noise C	ontour (III lee	'	70 dB	4 6	5 dBA	-	60 dBA	55	dBA
			10 UD		JUDA	,	JU UDA	00	
		Ldn:	35		75	`	161		347

	FHW	A-RD-77-108	HIGH	lWAY	NOISE P	REDICTI	ON MO	DEL			
Road Nam	io: Year 2016 W ne: Santa Cruz nt: Souh of San	,	ı				Name: umber:		С		
	SPECIFIC INF	PUT DATA							L INPUTS	S	
Highway Data					Site Cor	nditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 12		8					Autos:	15		
Peak Hour	Percentage:	10%				edium Tru		/	15		
Peak H	lour Volume: 1	,250 vehicle	3		He	eavy Truc	cks (3+ )	4xles):	15		
Ve	hicle Speed:	45 mph		ŀ	Vehicle	Mix					
Near/Far La	ne Distance:	52 feet				icleType		Dav	Evening	Night	Daily
Site Data						- /	Autos:	77.5%	12.9%	9.6%	97.42%
Rai	rrier Height:	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0				Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	. ,	100.0 feet		-	Noise S	ouroo El	ovetle m	o (in f	2041		
Centerline Dist.	to Observer:	100.0 feet		-	Noise 3	Auto:		000	et)		
Barrier Distance	to Observer:	0.0 feet			A deceller	Autos m Trucks		000			
Observer Height (	Above Pad):	5.0 feet				m Trucks vy Trucks		000	Grade Adj	iuetmant	. 0.0
Pa	ad Elevation:	0.0 feet			пеа	y mucks	s. o.	006	Orace Au	astricin	. 0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalent	Distan	ce (in i	feet)		
ı	Road Grade:	0.0%				Autos	s: 96.	607			
	Left View:	-90.0 degree	es			m Trucks		566			
	Right View:	90.0 degree	es		Hear	y Trucks	s: 96.	608			
FHWA Noise Mode	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresi	nel	Barrier Atte	en Bei	m Atten
Autos:	68.46	-0.98		-4.3		-1.20		-4.87	0.0		0.000
Medium Trucks:	79.45	-18.22		-4.3		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-22.18		-4.3	39	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (witho	ut Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hour			Leq E	vening	,	Night		Ldn		NEL
Autos:	61.9		60.0		58.2		52.2	-	60.8		61.4
Medium Trucks:	55.6		54.1		47.8		46.2	-	54.7		54.9
Heavy Trucks:	56.5 63.7		55.1 62.0		46.0		47.3		55.6 62.7		55.8 63.1
Vehicle Noise:	****				58.8		54.	I	62.7		63.1
Centerline Distant	ce to Noise Cor	ntour (in feet	)	70	dBA	65	dBA		60 dBA		dBA
			l dn:								<i>aBA</i> 326
			Lan: VFI:						126 149		
		Ci	VEL:	,	30	/	5		102	3	49

	FH'	WA-RD-77-108	HIG	HWAY N	OISE P	REDICTI	ON MO	ODEL							
Road Nam	ne: Santa Cruz	Without Projec : an Joaquin Hills				Project Job N			PC .						
SITE	SPECIFIC IN	IPUT DATA				N	OISE	MODI	EL INPUT	S					
Highway Data				5	Site Cor	nditions	(Hard	= 10, S	oft = 15)						
	Traffic (Adt): Percentage: lour Volume:	1,700 vehicle 10% 170 vehicle				edium Tru eavy Truc			: 15						
Ve	hicle Speed:	45 mph		1	/ehicle	Mix									
Near/Far La	ne Distance:	52 feet		H		icleType		Day	Evening	### 150 ### 151 #### 151 ### 151 ### 151 ### 1		Daily			
Site Data						1	lutos:	77.59	6 12.9%	9.	6%	97.42%			
Barrier Type (0-W	. ,	0.0 feet 0.0				ledium Tr Heavy Tr		84.89 86.59				0.74%			
Ro	to Observer: to Observer: (Above Pad): ad Elevation: ad Elevation: Road Grade:	100.0 feet 100.0 feet 0.0 feet 5.0 feet 0.0 feet 0.0 feet 0.0%			Mediu Hear .ane Eq	Autos m Trucks vy Trucks uivalent Autos	6: 2 6: 4 6: 8 Distai	2.000 3.000 3.006 nce (in	Grade Adjustment: 0.0						
	Left View: Right View:	-90.0 degree				m Trucks vy Trucks		6.566 6.608							
FHWA Noise Mod															
VehicleType Autos:	REMEL 68.46	Traffic Flow -9.65	DI	stance -4.39		-1.20	Fres	-4.87			Berr				
Medium Trucks: Heavy Trucks:	79.45	-26.88		-4.39 -4.39	)	-1.20 -1.20 -1.20		-4.87 -4.97 -5.16	0.0	000		0.000 0.000 0.000			
Unmitigated Nois	o Lovole (with	out Tono and	harri	ior atton	uation)										
VehicleType	Leg Peak Ho			Leg Ev		Lea	Night	Т	Ldn	T	C٨	IFI			
Autos:	53		51.3		49.6		43	.5		1		52.7			
Medium Trucks:	47	'.O	45.5		39.1		37	.6	46.0	)	5.				
Heavy Trucks:	47	'.8	46.4		37.4		38	.6	47.0	)		47.1			
Vehicle Noise:	55	5.1	53.3		50.2		45	.5	54.0	)		54.5			
Centerline Distan	ce to Noise C	ontour (in feet	)	70 c	'BA	65 (	dBA		60 dBA	ī	55 c	dBA			

Tuesday, May 29, 2012

	FH	IWA-RD-	-77-108	HIGH	1 YAW	NOISE P	REDICTION	ON MC	DEL						
Road Nan	rio: Year 2016 ne: Santa Cru ent: North of S	Z	,	t			Project I Job Nu			PC					
SITE	SPECIFIC I	NPUT E	ATA							L INPUT	S				
Highway Data						Site Cor	nditions (	Hard :	= 10, S	oft = 15)					
Average Daily	Traffic (Adt):	12,300	vehicles	s					Autos:	15					
Peak Hour	Percentage:	109	6			Me	edium Tru	cks (2	Axles):	15					
Peak I	Hour Volume:	1,230	vehicles	S		He	eavy Truci	ks (3+	Axles):	15					
Ve	ehicle Speed:	45	mph		H	Vehicle	Miv								
Near/Far La	ane Distance:	52	feet		F		icleType		Dav	Evening	Night	Daily			
Site Data								utos:	77.5%	-	9.69				
D-	rrier Height:	0.0	feet			M	edium Tru	icks:	84.8%	6 4.9%	10.39	6 1.84%			
Barrier Type (0-V		0.0					Heavy Tru	ıcks:	86.5%	6 2.7%	10.89	6 0.74%			
,,,,	ist. to Barrier:	100.0	feet			M-! 0	ource Ele		(! 6	41					
Centerline Dist.	to Observer:	-	Noise S				eet)								
Barrier Distance	to Observer:	0.0	feet			Autos: 2.000									
Observer Height	(Above Pad):	5.0	feet		Medium Trucks: 4.000  Heavy Trucks: 8.006 Grade Adjustment: 0.0						nt: 0.0				
P	ad Elevation:	0.0	feet			Hea	vy Trucks.	: 8	.006	Grade Ad	de Adjustment: 0.0				
Ro	ad Elevation:	0.0	feet			Lane Eq	uivalent	Distar	ice (in	feet)					
	Road Grade:	0.0	%				Autos.	96	.607						
	Left View:	-90.0	degree	es		Mediu	m Trucks	: 96	.566						
	Right View:	90.0	degree	es		Hear	vy Trucks	96	.608						
FHWA Noise Mod	lel Calculatio	ns													
VehicleType	REMEL	Traffic	Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Be	erm Atten			
Autos:	68.46	3	-1.05		-4.3	9	-1.20		-4.87	0.0	000	0.000			
Medium Trucks:	79.4	5	-18.29		-4.3	9	-1.20		-4.97	0.0	000	0.000			
Heavy Trucks:	84.25	5	-22.25		-4.3	9	-1.20		-5.16	0.0	000	0.000			
Unmitigated Nois	e Levels (wit	hout Top	oo and	barrie	r atter	nuation)									
VehicleType	Leq Peak Ho	our L	eq Day	′	Leq E	vening	Leq N	light		Ldn	(	CNEL			
Autos:	6	1.8		59.9		58.1		52.	1	60.7	7	61.3			
Medium Trucks:	-	5.6		54.1		47.7		46.	_	54.6	-	54.8			
Heavy Trucks:		6.4		55.0		46.0		47.		55.6		55.7			
Vehicle Noise:	6	3.6		61.9		58.8		54.	1	62.6	5	63.1			
Centerline Distan	ce to Noise C	Contour	(in feet)	)											
				L	_	70 dBA 65 dBA		- (	60 dBA	5	5 dBA				
				Ldn:	_	32 69 150				322					
			CI	VEL:	3	35	74	ŀ		160		346			

	FH	WA-RD-77-108	HIGHV	VAY N	OISE PF	REDICTIO	N MO	DEL			
Road Nam	io: Year 2016 ne: Santa Cruz nt: South of S		t			Project N Job Nur			С		
SITE	SPECIFIC IN	NPUT DATA				NC	ISE N	ИODE	L INPUT	S	
Highway Data				S	ite Con	ditions (F	lard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	9,900 vehicle	:S					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Truc	ks (2 /	Axles):	15		
Peak H	lour Volume:	990 vehicle	:S		He	avy Truck	s (3+ A	Axles):	15		
Ve	hicle Speed:	45 mph		ν	/ehicle l	Mix					
Near/Far La	ne Distance:	52 feet		F		cleType		Day	Evening	Night	Daily
Site Data						Au	tos:	77.5%	12.9%	9.6%	97.42%
Bai	rrier Height:	0.0 feet			Me	edium Tru	cks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0			F	łeavy Tru	cks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis		100.0 feet		۸	loise Sc	urce Ele	vation	s (in fe	eet)		
Centerline Dist.	to Observer:	100.0 feet				Autos:		000	,		
Barrier Distance		0.0 feet			Mediur	n Trucks:	4.	000			
Observer Height (	,	5.0 feet			Heav	y Trucks:	8.	006	Grade Ad	justmen	t: 0.0
	ad Elevation:	0.0 feet									
	ad Elevation:	0.0 feet		L	ane Equ	uivalent L			feet)		
,	Road Grade:	0.0%				Autos:		607			
	Left View:	-90.0 degre				n Trucks:		566			
	Right View:	90.0 degre	es		Heav	y Trucks:	96.	608			
FHWA Noise Mode	el Calculation	ıs		-							
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresr	nel	Barrier Att	en Be	rm Atten
Autos:	68.46			-4.39		-1.20		-4.87		000	0.000
Medium Trucks:	79.45			-4.39		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-23.19		-4.39		-1.20		-5.16	0.0	000	0.000
Unmitigated Noise											
VehicleType	Leq Peak Ho			Leq Ev	_	Leq N			Ldn		NEL
Autos:		0.9	59.0		57.2		51.2	-	59.8	-	60.4
Medium Trucks:	-	1.6	53.1		46.8		45.2	-	53.7		53.9
Heavy Trucks:		5.5	54.0		45.0		46.3		54.6		54.7
Vehicle Noise:		2.7	61.0		57.8		53.1	l	61.7	/	62.1
Centerline Distant	ce to Noise C	ontour (in fee	t)	70 4	D.4	05 -11	24		20 -40.4	-	10.4
			Later	70 d		65 dE	3A	6	60 dBA		dBA
		_	Ldn: NFI:	28		60 64			129		279
		C	IVEL:	30	,	64			139		299

	FHW	A-RD-77-108	HIGH	WAY I	NOISE P	REDICTI	ON MO	DEL			
Road Nam	io: Year 2016 V ne: Santa Cruz nt: South of Ne	•	t			Project Job Ni	Name: umber:		С		
SITE	SPECIFIC INI	PUT DATA				N	IOISE N	MODE	L INPUTS	S	
Highway Data					Site Cor	nditions	(Hard =	: 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	4,600 vehicle	S					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tru	icks (2 i	Axles):	15		
Peak H	lour Volume:	460 vehicles	S		He	eavy Truc	ks (3+ )	Axles):	15		
Ve	hicle Speed:	45 mph		H	Vehicle	Mix					
Near/Far La	ne Distance:	52 feet		ŀ		icleType		Dav	Evening	Night	Daily
Site Data							Autos:	77.5%		9.6%	
Rai	rrier Height:	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0				Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	. ,	100.0 feet		ŀ	Noise S	ouroo El	ovetle m	o (in f	2041		
Centerline Dist.	to Observer:	100.0 feet		ŀ	Noise 3	Autos		000	et)		
Barrier Distance	to Observer:	0.0 feet			11-4	Autos m Trucks		000			
Observer Height (	Above Pad):	5.0 feet				vy Trucks		000	Grade Adj	iietmant	. 0.0
Pa	ad Elevation:	0.0 feet			пеа	ry Trucks	s. o.	006	Orace Au	ustmon	. 0.0
Roa	ad Elevation:	0.0 feet		L	Lane Eq	uivalent	Distan	ce (in i	feet)		
ı	Road Grade:	0.0%				Autos	s: 96.	.607			
	Left View:	-90.0 degree	es			m Trucks		.566			
	Right View:	90.0 degree	es		Hear	y Trucks	s: 96.	.608			
FHWA Noise Mode	el Calculations										
VehicleType	REMEL	Traffic Flow	Dist	tance		Road	Fresi		Barrier Atte		m Atten
Autos:	68.46	-5.32		-4.3		-1.20		-4.87	0.0		0.000
Medium Trucks:	79.45	-22.56		-4.3		-1.20		-4.97	0.0		0.000
Heavy Trucks:	84.25	-26.52		-4.3	39	-1.20		-5.16	0.0	100	0.000
Unmitigated Noise	e Levels (witho	ut Topo and	barrie	r atter	nuation)						
VehicleType	Leq Peak Hour			Leq E	vening		Night		Ldn		NEL
Autos:	57.	-	55.6		53.9		47.8	-	56.4		57.1
Medium Trucks:	51.3	-	49.8		43.4		41.9	-	50.3		50.6
Heavy Trucks: Vehicle Noise:	52.°		50.7 57.6		41.7 54.5		42.9	-	51.3 58.3		51.4 58.8
		•			54.5		49.0	o	50.0	,	30.0
Centerline Distant	ce to Noise Co	ntour (in feet	,	70	dBA	65.0	dBA		60 dBA	55	dBA
			l dn:					67			
			VEL:		18	-	9		83		79
					10 39 03 1						

	FH\	WA-RD-77-108	HIGHWA	NOISE	PREDICTIO	N MODEL				
	e: Santa Cruz					ame: NNCI nber: 8211	PC			
	SPECIFIC IN	NPUT DATA					EL INPUTS	ò		
Highway Data				Site C	Conditions (H	lard = 10, S	oft = 15)			
Average Daily		9,500 vehicles				Autos				
Peak Hour		10%			Medium Truci					
	our Volume:	950 vehicles			Heavy Trucks	s (3+ Axies)	: 15			
	nicle Speed:	45 mph		Vehic	le Mix					
Near/Far Lar	ne Distance:	52 feet		1	/ehicleType	Day	Evening	Night	Daily	
Site Data					Au	tos: 77.59	6 12.9%	9.6%	97.42%	
Bar	rier Height:	0.0 feet			Medium Truc	ks: 84.89	6 4.9%	10.3%	1.84%	
Barrier Type (0-Wa		0.0			Heavy Truc	ks: 86.59	6 2.7%	10.8%	0.74%	
Centerline Dis		100.0 feet		Noise	Source Elev	ations (in	feet)			
Centerline Dist. t		100.0 feet			Autos:	2.000				
Barrier Distance t		0.0 feet		Me	dium Trucks:	4.000				
Observer Height (	,	5.0 feet		Н	eavy Trucks:	8.006	Grade Adju	ustment:	0.0	
	d Elevation:	0.0 feet		Lone	Equivalent D	liotoneo (in	footl			
	d Elevation: Road Grade:	0.0 feet 0.0%		Lane	Autos:	96.607	reet)			
,	l eft View:		_	140	dium Trucks:	96.566				
	Right View:	-90.0 degree 90.0 degree			eavy Trucks:	96.608				
FHWA Noise Mode	l Calculation	s		1						
VehicleType	REMEL	Traffic Flow	Distance	e Fir	nite Road	Fresnel	Barrier Atte	n Berr	n Atten	
Autos:	68.46	-2.17	-4	.39	-1.20	-4.87	0.0	00	0.000	
Medium Trucks:	79.45	-19.41	-4	.39	-1.20	-4.97	0.00	00	0.000	
Heavy Trucks:	84.25	-23.37	-4	.39	-1.20	-5.16	0.00	00	0.000	
Unmitigated Noise	Levels (with		barrier att	enuatio	n)					
	Leq Peak Ho	, ,		Evening			Ldn		IEL	
Autos:	60		8.8	-	7.0	51.0	59.6		60.2	
Medium Trucks:	54	-	52.9		6.6	45.0	53.5		53.7	
Heavy Trucks:	55		53.9		4.8	46.1	54.4		54.6	
Vehicle Noise:	62		80.8	5	7.6	53.0	61.5		62.0	
Centerline Distance	e to Noise C	ontour (in feet)		0 dBA	65 dE	24	60 dBA		dBA	
		,	dn:	27	58	м	126		71	
			_an: IFI :	29						
		CN	ILL.	29	63 135 291					

Tuesday, May 29, 2012

	FHV	VA-RD-77-108	HIGH	WAY I	NOISE P	REDICTION	ON MO	ODEL					
	: Newport CT		t			Project I Job Nu			PC				
SITE S	PECIFIC IN	PUT DATA				N	DISE	MODE	L INPUT	S			
Highway Data					Site Cor	nditions (	Hard:	= 10, S	oft = 15)				
Average Daily T	raffic (Adt):	7,300 vehicle	s					Autos.	15				
Peak Hour F	Percentage:	10%			Me	edium Tru	cks (2	Axles).	15				
Peak Ho	our Volume:	730 vehicle	s		He	eavy Truci	ks (3+	Axles).	15				
Veh	icle Speed:	45 mph		ŀ	Vehicle	Miv							
Near/Far Land	e Distance:	76 feet		H		icleType		Dav	Evening	Night	Daily		
Site Data							utos:	77.5%	-	9.6%	-		
Parr	ier Height:	0.0 feet			M	edium Tru	icks:	84.89	6 4.9%	10.3%	1.84%		
Barrier Type (0-Wa		0.0				Heavy Tru	icks:	86.5%	6 2.7%	10.8%	0.74%		
Centerline Dist	. ,	100.0 feet		- 1	Noisa S	ource Ele	vatio	ne (in f	ioot)				
Centerline Dist. to	Observer:	100.0 feet		ŀ	Autos: 2.000								
Barrier Distance to	Barrier Distance to Observer: 0.0 feet						Medium Trucks: 4.000						
Observer Height (A	bserver Height (Above Pad): 5.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0							
Pad	d Elevation:	0.0 feet			, , , , , , , , , , , , , , , , , , , ,								
Road	d Elevation:	0.0 feet			Lane Eq	uivalent	Dista	nce (in	feet)				
R	oad Grade:	0.0%				Autos.		2.547					
	Left View:	-90.0 degree	es		Mediu	m Trucks	: 92	2.504					
	Right View:	90.0 degree	es		Hea	vy Trucks	92	2.547					
FHWA Noise Model	l Calculation:	s											
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten		
Autos:	68.46	-3.32		-4.1	1	-1.20		-4.87	0.0	000	0.000		
Medium Trucks:	79.45	-20.56		-4.1	1	-1.20		-4.97	0.0	000	0.000		
Heavy Trucks:	84.25	-24.51		-4.1	1	-1.20		-5.16	0.0	000	0.000		
Unmitigated Noise	Levels (with	out Topo and	barrie	er atter	nuation)								
VehicleType L	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq N	light		Ldn	С	NEL		
Autos:	59	.8	57.9		56.2		50	.1	58.	7	59.3		
Medium Trucks:	53	.6	52.1		45.7		44	.2	52.0	6	52.9		
Heavy Trucks: 54.4 53.0					44.0		45		53.0	6	53.7		
Vehicle Noise: 61.7 59.9					56.8		52	.1	60.	6	61.1		
Centerline Distance	e to Noise Co	ontour (in feet	)										
							BA		60 dBA		i dBA		
			Ldn:	_	24		51		110		238		
		CI	NEL:	2	25	55	5		118	:	255		

Tuesday, May 29, 2012

FH	WA-RD-77-108	HIGH	WAY N	OISE P	REDICT	ON MO	DEL			
Scenario: Year 2016 Road Name: Newport C Road Segment: South of S	TR	t				Name: umber:		0		
SITE SPECIFIC II	IPUT DATA				Ν	IOISE I	ИODE	L INPUT	S	
Highway Data			5	Site Con	ditions	(Hard =	10, Sc	ft = 15)		
Average Daily Traffic (Adt):	7,900 vehicle	S					Autos:	15		
Peak Hour Percentage:	10%			Me	dium Tri	icks (2 i	Axles):	15		
Peak Hour Volume:	790 vehicle	S		He	avy Truc	ks (3+ )	Axles):	15		
Vehicle Speed:	45 mph		1	/ehicle	Mix					
Near/Far Lane Distance:	76 feet		F		icleType		Day	Evening	Night	Daily
Site Data					-	Autos:	77.5%	12.9%	9.6%	6 97.42%
Barrier Height:	0.0 feet			Me	edium Ti	ucks:	84.8%	4.9%	10.3%	6 1.84%
Barrier Type (0-Wall, 1-Berm):	0.0			F	Heavy Ti	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet		^	Voise So	ource El	evation	s (in fe	et)		
Centerline Dist. to Observer:	100.0 feet				Auto		000	,		
Barrier Distance to Observer:	0.0 feet			Mediu	m Truck		000			
Observer Height (Above Pad):	5.0 feet			Heav	vy Truck	s: 8.	006	Grade Ad	iustmen	t: 0.0
Pad Elevation:	0.0 feet									
Road Elevation:	0.0 feet		L	.ane Eq	uivalen			eet)		
Road Grade:	0.0%				Auto		547			
Left View:	-90.0 degre				m Truck		504			
Right View:	90.0 degre	es		Heav	y Truck	s: 92.	547			
FHWA Noise Model Calculation	ıs									
VehicleType REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresi	nel	Barrier Att	en Be	rm Atten
Autos: 68.46	-2.97		-4.11		-1.20		-4.87	0.0	000	0.000
Medium Trucks: 79.45			-4.11		-1.20		-4.97		000	0.000
Heavy Trucks: 84.25	-24.17		-4.11		-1.20		-5.16	0.0	000	0.000
Unmitigated Noise Levels (with	out Topo and	barrie	r atteni	uation)						
VehicleType Leq Peak Ho			Leq Ev	_		Night		Ldn		CNEL
		58.3		56.5		50.5	-	59.1		59.7
		52.4		46.1		44.5	-	53.0		53.2
Heavy Trucks: 54		53.3 60.3		44.3		45.6		53.9		54.0 61.4
Vahiala Maiaas	2.0	00.3		57.1		52.4	+	61.0	,	1.4ن
Vehicle Noise: 62										
Vehicle Noise: 62  Centerline Distance to Noise C	ontour (in feet	)	70 d	IRA	65	dRA.		n dBA	5	5 dBA
	•	Ldn:	70 d			dBA 4	6	0 dBA 116		5 dBA 250

	FHW	A-RD-77-108	HIGH	WAY I	NOISE P	REDICT	ION MC	DEL			
Road Nam	o: Year 2016 V e: Newport CT nt: South of Sar	R ,	t			Project Job N	Name: lumber:		С		
SITE S	SPECIFIC INF	PUT DATA				Ν	IOISE	MODE	L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	6,300 vehicle	S					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	ucks (2	Axles):	15		
Peak H	our Volume:	630 vehicle	s		He	eavy Truc	cks (3+	Axles):	15		
Vei	hicle Speed:	45 mph		-	Vehicle	Miv					
Near/Far Lai	ne Distance:	76 feet		ŀ		icleType		Dav	Evening	Night	Daily
Site Data							Autos:	77.5%	-	9.6%	,
Par	rier Heiaht:	0.0 feet		=	М	edium Ti	rucks:	84.8%	4.9%	10.3%	
Barrier Type (0-W		0.0				Heavy Ti	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	st. to Barrier:	100.0 feet		-	Noise S	ource Fl	lovatio	ne (in fa	not)		
Centerline Dist.	to Observer:	100.0 feet		H	140/36 0	Auto		.000			
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck:		.000			
Observer Height (.	Above Pad):	5.0 feet				vy Truck		.006	Grade Ad	iustment	. 0.0
Pa	ad Elevation:	0.0 feet		L	i icai	y much	3. 0	.000	Orddo rid	juotimom	. 0.0
Roa	ad Elevation:	0.0 feet		L	Lane Eq	uivalen	t Distar	ice (in i	feet)		
F	Road Grade:	0.0%				Auto	s: 92	.547			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 92	.504			
	Right View:	90.0 degre	es		Hear	y Truck	s: 92	.547			
FHWA Noise Mode	el Calculations										
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	68.46	-3.96		-4.1	1	-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45	-21.20		-4.1	1	-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-25.15		-4.1	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (witho	ut Topo and	barrie	r attei	nuation)						
VehicleType	Leq Peak Hour			Leq E	vening	,	Night		Ldn		NEL
Autos:	59.2		57.3		55.5		49.		58.		58.7
Medium Trucks:	52.9		51.4		45.1		43.	-	52.0		52.2
Heavy Trucks: Vehicle Noise:	53.8		52.4 59.3		43.3 56.1		44. 51.	-	52.9 60.0	-	53.1 60.5
	***	-			36.1		51.	J	60.1	J	00.0
Centerline Distance	ce to Noise Co	ntour (in feet	)	70	dBA	65	dBA	-	60 dBA	55	dBA
			Ldn:	_	22				100		215
			VFI:	_			107		31		
		Ci		-							

	FH	WA-RD-77-108	HIGHWA	AY NO	OISE PR	EDICTIO	N MODEL			
	e: Newport C					.,	ame: NNC nber: 8211			
SITE S	SPECIFIC II	NPUT DATA						EL INPUT	S	
Highway Data				S	ite Cond	ditions (H	lard = 10,	Soft = 15)		
Average Daily	Traffic (Adt):	6,900 vehicles	3				Auto	s: 15		
Peak Hour	Percentage:	10%			Med	dium Truci	ks (2 Axles	:): 15		
Peak H	our Volume:	690 vehicles	3		Hea	avy Trucks	s (3+ Axles	;): 15		
Vei	hicle Speed:	45 mph		ν	ehicle N	Nix				
Near/Far Lar	ne Distance:	76 feet		H		cleType	Day	Evening	Night	Daily
Site Data						Au	tos: 77.5	% 12.9%	9.6%	97.42%
Bar	rier Heiaht:	0.0 feet			Me	dium Truc	ks: 84.8	% 4.9%	10.3%	1.84%
Barrier Type (0-W		0.0			Н	leavy Truc	cks: 86.5	% 2.7%	10.8%	0.74%
Centerline Dis	t. to Barrier:	100.0 feet			laisa Sa	urce Flev	ations (in	foot)		
Centerline Dist.	to Observer:	100.0 feet		-	10/36 00	Autos:	2.000	icci)		
Barrier Distance	to Observer:	0.0 feet			Mediun	n Trucks:	4.000			
Observer Height (	Above Pad):	5.0 feet				rrucks:	8.006	Grade Ad	liustment	0.0
Pa	d Elevation:	0.0 feet							,	
	d Elevation:	0.0 feet		L	ane Equ		istance (i	n feet)		
F	Road Grade:	0.0%				Autos:	92.547			
	Left View:	-90.0 degree				n Trucks:	92.504			
	Right View:	90.0 degree	es		Heavy	y Trucks:	92.547			
FHWA Noise Mode		ıs								
VehicleType	REMEL	Traffic Flow	Distan		Finite I		Fresnel	Barrier Att	_	
Autos:	68.46			-4.11		-1.20	-4.8			0.000
Medium Trucks:	79.45			-4.11		-1.20	-4.9			0.000
Heavy Trucks:	84.25	-24.76		-4.11		-1.20	-5.1	6 0.0	000	0.000
Unmitigated Noise										
	Leq Peak Ho			q Ev	ening	Leq Ni		Ldn		
Autos:			57.7		55.9		49.9			59.1
Medium Trucks:			51.8		45.5		43.9			52.6
Heavy Trucks: Vehicle Noise:			52.8 59.7		43.7		45.0			53.5
					56.5		51.8	60.	+	60.8
Centerline Distance	e to Noise C	ontour (in feet,	)	70 di	RΔ	65 dE	24	60 dBA	55	dΒΔ
			l dn:	23		49	W1	106		
			JFI:	25		53		114	% 9.6% 97. % 10.3% 1. % 10.8% 0.  Adjustment: 0.0	
		Oi.		_0		33		114 245		

Tuesday, May 29, 2012

F	HWA-RD-77-108	HIGHWAY	NOISE P	REDICTIO	N MODEL				
Scenario: Year 201	6 Without Projec	t		Project N	lame: NNC	PC			
Road Name: Newport	CTR			Job Nu	nber: 8211				
Road Segment: North of	Santa Cruz								
SITE SPECIFIC	INPUT DATA					EL INPUTS	3		
Highway Data			Site Con	ditions (l	lard = 10,	Soft = 15)			
Average Daily Traffic (Adt):	5,800 vehicle	S			Auto	s: 15			
Peak Hour Percentage:	10%		Me	dium Truc	ks (2 Axles	): 15			
Peak Hour Volume:	580 vehicle	S	He	avy Truck	s (3+ Axles	): 15			
Vehicle Speed:	45 mph		Vehicle	Mix					
Near/Far Lane Distance:	76 feet			icleType	Day	Evening	Night	Daily	
Site Data				AL	itos: 77.5	% 12.9%	9.6%	97.42%	
Barrier Height	0.0 feet		M	edium Tru	cks: 84.8	% 4.9%	10.3%	1.84%	
Barrier Type (0-Wall, 1-Berm).	0.0		1	Heavy Tru	cks: 86.5	% 2.7%	10.8%	0.74%	
Centerline Dist. to Barrier.	100.0 feet		Noise So	nurce Fle	vations (in	feet)			
Centerline Dist. to Observer.	100.0 feet		110,00 01	Autos:	2.000	1001)			
Barrier Distance to Observer.	0.0 feet		Mediu	m Trucks:	4.000				
Observer Height (Above Pad).	5.0 feet			v Trucks:	8.006	Grade Adj	ustment	0.0	
Pad Elevation.	0.0 feet			•					
Road Elevation.	0.0 feet		Lane Eq	uivalent l	Distance (i	ı feet)			
Road Grade.	0.0%			Autos:					
Left View.	00.0 009.0	es		m Trucks:					
Right View.	90.0 degree	es	Heav	y Trucks:	92.547				
FHWA Noise Model Calculation	ns								
VehicleType REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier Atte	en Ber	m Atten	
Autos: 68.4	6 -4.32	-4	.11	-1.20	-4.8	7 0.0	100	0.000	
Medium Trucks: 79.4	5 -21.56	-4	.11	-1.20	-4.9	7 0.0	00	0.000	
Heavy Trucks: 84.2	5 -25.51	-4	.11	-1.20	-5.1	6 0.0	000	0.000	
Unmitigated Noise Levels (wi	thout Topo and	barrier atte	enuation)						
VehicleType Leq Peak H			Evening	Leq N	-	Ldn		VEL	
		56.9	55.2		49.1	57.7		58.3	
		51.1	44.7		43.2	51.6		51.9	
		52.0	43.0		44.2	52.6		52.7	
Vehicle Noise:	60.7	58.9	55.8		51.1	59.6	6	60.1	
Centerline Distance to Noise	Contour (in feet								
			0 dBA	65 dl	3A	60 dBA		dBA	
		Ldn:					04		
		VFI:	22	47		101		219	

	FH	WA-RD-77-108	HIGH	WAY I	NOISE PF	REDICT	ION MO	DDEL			
Road Nam	io: Year 2016 e: Newport C nt: North of Sa		t			.,	t Name: lumber:		PC .		
SITE	SPECIFIC IN	NPUT DATA				1	VOISE	MODE	EL INPUT	S	
Highway Data					Site Con	ditions	(Hard:	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	7,300 vehicles	S					Autos	: 15		
Peak Hour	Percentage:	10%			Me	dium Tr	rucks (2	Axles)	: 15		
Peak H	our Volume:	730 vehicle	3		Hei	avy Tru	cks (3+	Axles)	: 15		
Ve	hicle Speed:	45 mph		ŀ	Vehicle I	Miv					
Near/Far La	ne Distance:	76 feet		ŀ		cleType	9	Day	Evening	Night	Daily
Site Data							Autos:	77.59	6 12.9%	9.6	% 97.42%
Rai	rier Heiaht:	0.0 feet			Me	edium T	rucks:	84.89	6 4.9%	10.39	% 1.84%
Barrier Type (0-W		0.0			F	leavy T	rucks:	86.59	6 2.7%	10.89	% 0.74%
Centerline Dis	st. to Barrier:	100.0 feet		ŀ	Noise Sc	urce F	levatio	ns (in i	feet)		
Centerline Dist.	to Observer:	100.0 feet		ŀ	710700 00	Auto		.000	001)		
Barrier Distance	to Observer:	0.0 feet			Madiur	n Truck		.000			
Observer Height (	Above Pad):	5.0 feet				y Truck		.006	Grade Ad	iustmei	nt: 0.0
Pa	ad Elevation:	0.0 feet		L							
Roa	ad Elevation:	0.0 feet		L	Lane Equ	uivalen			feet)		
1	Road Grade:	0.0%				Auto		.547			
	Left View:	-90.0 degree	es			n Truck		.504			
	Right View:	90.0 degree	es		Heav	y Truck	rs: 92	.547			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite		Fres		Barrier Att		erm Atten
Autos:	68.46			-4.1		-1.20		-4.87		000	0.000
Medium Trucks:	79.45			-4.1		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-24.51		-4.1	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	r atter	nuation)						
VehicleType	Leq Peak Ho			Leq E	vening	Leq	Night		Ldn		CNEL
Autos:			57.9		56.2		50		58.7		59.3
Medium Trucks:			52.1		45.7		44.	_	52.6	-	52.9
Heavy Trucks:			53.0		44.0		45.	_	53.6		53.7
Vehicle Noise:	61	1.7	59.9		56.8		52	1	60.6	6	61.1
Centerline Distance	ce to Noise C	ontour (in feet	)								
			L		dBA		dBA		60 dBA	5	i5 dBA
			Ldn:		24		51		110		238
		CI	VEL:	2	25		55		118		255

	FHV	VA-RD-77-108	HIGH	WAY N	IOISE PI	REDICTION	ON MO	DEL			
Road Nam	io: Year 2016 Ne: Newport CT	TR ,	t			Project I Job Nu	Name: I		0		
SITE	SPECIFIC IN	PUT DATA				N	OISE N	/ODE	L INPUTS	3	
Highway Data					Site Con	ditions (	Hard =	10, So	ft = 15)		
Average Daily	Traffic (Adt):	7,600 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	cks (2 A	(xles	15		
Peak H	lour Volume:	760 vehicle	S		He	avy Truc	ks (3+ A	(xles	15		
Ve	hicle Speed:	45 mph		,	Vehicle	Miv					
Near/Far La	ne Distance:	76 feet		H'		icleType		Day	Evening	Night	Daily
Site Data								77.5%	0	9.6%	
Pa	rrier Height:	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0			1	Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Di	. ,	100.0 feet		L.							
Centerline Dist.		100.0 feet		1	Noise S	ource Ele		•	et)		
Barrier Distance	to Observer:	0.0 feet				Autos		000			
Observer Height	(Above Pad):	5.0 feet				m Trucks		000			
	ad Elevation:	0.0 feet			Heav	y Trucks	: 8.0	006	Grade Adj	ustment.	0.0
Ro	ad Elevation:	0.0 feet		I	Lane Eq	uivalent	Distan	ce (in f	eet)		
	Road Grade:	0.0%				Autos	: 92.	547			
	Left View:	-90.0 degree	es		Mediu	m Trucks	: 92.	504			
	Right View:	90.0 degree			Heav	y Trucks	92.	547			
FHWA Noise Mod	el Calculation:	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresn	iel .	Barrier Atte	en Ber	m Atten
Autos:	68.46	-3.14		-4.11		-1.20		-4.87	0.0		0.000
Medium Trucks:	79.45	-20.38		-4.11		-1.20		-4.97	0.0		0.000
Heavy Trucks:	84.25	-24.34		-4.11	1	-1.20		-5.16	0.0	00	0.000
Unmitigated Nois								,			
VehicleType	Leq Peak Hou			Leg E		Leq I			Ldn		VEL
Autos:	60		58.1		56.3		50.3		58.9		59.5
Medium Trucks:	53		52.2		45.9		44.3		52.8		53.0
Heavy Trucks: Vehicle Noise:	54 61		53.2 60.1		44.1 56.9		45.4 52.3		53.7 60.8		53.9 61.3
Centerline Distan	ce to Noise Co	ntour (in feet	)								
Contonine Distant	00 10 110/36 00	mou. (III loot		70 c	dBA	65 c	IBA	6	0 dBA	55	dBA
	24	24 53 113		2	44						
					26 56					_	

	FH	WA-RD-77-108	HIGHW	AY NC	ISE PE	REDICT	ION MO	DDEL			
Scenario: Road Name: Road Segment:	Newport C		et				Name: lumber:	NNCP0 8211			
SITE SI	PECIFIC II	NPUT DATA				Ν	IOISE	MODE	L INPUT	S	
Highway Data				Si	ite Con	ditions	(Hard :	= 10, Sc	ft = 15)		
Average Daily Tr Peak Hour P	ercentage:	10%				dium Tri		,	15 15		
	ır Volume:	1,000 vehicle	S		He	avy Trud	cks (3+	Axles):	15		
	cle Speed:	45 mph		Ve	ehicle l	Mix					
Near/Far Lane	Distance:	76 feet			Veh	icleType	,	Day	Evening	Night	Daily
Site Data						,	Autos:	77.5%	12.9%	9.6%	97.429
Barri	er Height:	0.0 feet			Me	edium Ti	rucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-Wal		0.0			F	leavy T	rucks:	86.5%	2.7%	10.8%	0.749
Centerline Dist.	to Barrier:	100.0 feet		N	oise Sc	ource El	levatio	ns (in fe	et)		
Centerline Dist. to	Observer:	100.0 feet				Auto		.000	,		
Barrier Distance to	Observer:	0.0 feet			Mediu	m Truck		.000			
Observer Height (Al		5.0 feet				y Truck		.006	Grade Ad	iustment	0.0
	Elevation:	0.0 feet		-							
	Elevation:	0.0 feet		Lá	ane Eq	uivalen			eet)		
Ro	ad Grade:	0.0%				Auto		.547			
_	Left View:	-90.0 degre				m Truck		.504			
F	Right View:	90.0 degre	es		Heav	y Truck	s: 92	.547			
FHWA Noise Model	Calculation										
VehicleType	REMEL	Traffic Flow	Dista		Finite	Road	Fres	_	Barrier Att		m Atten
Autos:	68.46			-4.11		-1.20		-4.87		000	0.00
Medium Trucks:	79.45			-4.11		-1.20		-4.97		000	0.00
Heavy Trucks:	84.25			-4.11		-1.20		-5.16	0.0	000	0.00
VehicleType L	L <b>evels (with</b> eq Peak Ho					100	Night	_	I dn		NFI
Autos:		ur Ley Da. 1.2	59.3	.eq Eve	57.5	Leq	TVIGITE 51.	Б	60.1		VEL 60.
Medium Trucks:	-	1.9	53.4		47.1		45.	-	54.0		54.
Heavy Trucks:	-	5.8	54.4		45.3		46.	-	54.9		55.
Vehicle Noise:		3.0	61.3		58.1		53.	-	62.0		62.
Centerline Distance	to Noise C	ontour (in fee	t)								
			_	70 dF	3A	65	dBA	6	0 dBA	55	dBA
			Ldn:	29			33		136	2	93

Tuesday, May 29, 2012

F	HWA-R	D-77-108	HIGHW	AY NO	DISE PI	REDICTION	ON M	ODEL				
Scenario: Year 201 Road Name: Newport Road Segment: South of	CTR	,	t			Project I Job Nu			PC			
SITE SPECIFIC	INPUT	DATA							L INPUT	S		
Highway Data				S	ite Cor	nditions (	Hard	= 10, S	oft = 15)			
Average Daily Traffic (Adt)	10,90	0 vehicles	S					Autos.	15			
Peak Hour Percentage	: 10	0%			Me	dium Tru	cks (2	Axles).	15			
Peak Hour Volume	1,09	0 vehicles	S		He	avy Truc	ks (3+	- Axles).	15			
Vehicle Speed	4	5 mph		1/	ehicle	Miv						
Near/Far Lane Distance	7	6 feet		V		icleType		Dav	Evening	Night	Daily	
Site Data					V C//		utos:	77.59	-	9.6%	-	
		.0 feet			М	edium Tri		84.89		10.3%		
Barrier Height Barrier Type (0-Wall, 1-Berm)		.0 reet				Heavy Tru	ucks:	86.5%	6 2.7%	10.8%		
Centerline Dist. to Barrier		.0 i.0 feet										
Centerline Dist. to Observer		.0 feet		Ν	loise S	ource Ele			eet)			
Barrier Distance to Observer		.0 feet				Autos		2.000				
Observer Height (Above Pad)			Medium Trucks: 4.000									
Pad Elevation		.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0							
Road Flevation	-	.0 feet		L	Lane Equivalent Distance (in feet)							
Road Grade		.0%				Autos		2.547	,			
I eft View		.0 degree	20		Mediu	m Trucks		2.504				
Right View	- 00	.0 degree			Heav	y Trucks	: 9:	2.547				
FHWA Noise Model Calculati												
VehicleType REMEL		fic Flow	Distar		e Finite Road Fi			Fresnel Ba			rm Atten	
Autos: 68.		-1.58		-4.11		-1.20		-4.87		000	0.000	
Medium Trucks: 79.4		-18.82		-4.11		-1.20		-4.97		000	0.000	
Heavy Trucks: 84.:	25	-22.77		-4.11		-1.20		-5.16	0.0	000	0.000	
Unmitigated Noise Levels (w.	thout T	opo and	barrier a	ttenu	ıation)							
VehicleType Leq Peak F	lour	Leq Day	Le	eq Eve	ening	Leq N	Vight		Ldn	C	NEL	
Autos:	61.6		59.7		57.9		51	.8	60.	5	61.1	
Medium Trucks:	55.3		53.8		47.5		45	.9	54.4	4	54.6	
Heavy Trucks: 56.2 54.7					45.7		47		55.3		55.4	
Vehicle Noise: 63.4 61.7					58.5		53	3.8	62.	4	62.8	
Centerline Distance to Noise	Centerline Distance to Noise Contour (in feet)											
				70 dBA 65 dB				60 dBA		i dBA		
			Ldn:	31		67			144		310	
		CI	VEL:	33		72	2		154	:	333	

Tuesday, May 29, 2012

	FH	WA-RD-77-108	HIGH	HWAY	NOISE P	REDICTI	ON MO	DEL			
Road Nam	io: Year 2016 ne: Newport C nt: East of Ne		t			Project Job N	Name: umber:		С		
SITE	SPECIFIC II	IPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	9,100 vehicle	:S					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tru	icks (2	4xles):	15		
Peak H	lour Volume:	910 vehicle	s		He	eavy Truc	ks (3+ )	4xles):	15		
Ve	hicle Speed:	45 mph			Vehicle	Miv					
Near/Far La	ne Distance:	76 feet				icleType		Dav	Evening	Night	Daily
Site Data							Autos:	77.5%		9.69	,
Pa	rrier Heiaht:	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.39	% 1.84%
Barrier Type (0-W		0.0				Heavy Tr	ucks:	86.5%	2.7%	10.89	% 0.74%
Centerline Di	. ,	100.0 feet			M-/ 0			- /! 6	41		
Centerline Dist.	to Observer:	100.0 feet			Noise S				eet)		
Barrier Distance	to Observer:	0.0 feet				Autos		000			
Observer Height (	(Above Pad):	5.0 feet				m Trucks		000	0		-1. 0.0
	ad Flevation:	0.0 feet			Hear	y Trucks	s: 8.	006	Grade Ad	justmer	nt: 0.0
Roi	ad Flevation:	0.0 feet			Lane Eq	uivalent	Distan	ce (in	feet)		
	Road Grade:	0.0%				Autos	s: 92.	547			
	Left View:	-90.0 degre	es		Mediu	m Trucks	s: 92.	504			
	Right View:	90.0 degre			Hear	y Trucks	s: 92.	547			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresi	nel	Barrier Att	en Be	erm Atten
Autos:	68.46	-2.36		-4.	11	-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45	-19.60		-4.	11	-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-23.55		-4.	11	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barri	er atte	nuation)						
VehicleType	Leq Peak Ho	ur Leq Da	V	Leq E	vening	Leq	Night		Ldn	(	CNEL
Autos:	60	0.8	58.9		57.1		51.	1	59.7	7	60.3
Medium Trucks:	54	1.5	53.0		46.7		45.	1	53.6	3	53.8
Heavy Trucks:	55	5.4	54.0		44.9		46.2	2	54.5	5	54.7
Vehicle Noise:	62	2.6	60.9		57.7		53.0	)	61.6	3	62.0
Centerline Distant	ce to Noise C	ontour (in fee	t)								
				70	dBA	65	dBA	- 6	60 dBA	5	5 dBA
			Ldn:		28	5	9		128		275
		C	NEL:		30	6	4		137		295

	FHW	A-RD-77-108	HIGH	IWAY	NOISE P	REDICTI	ON MO	DEL			
Road Nam	io: Year 2016 V le: Newport CT nt: North of Coa	R ,	t			Project Job Ni	Name: umber:		С		
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 1	6,400 vehicle	S					Autos:	15		
Peak Hour	Percentage:	10%				edium Tru		/	15		
Peak H	lour Volume:	1,640 vehicle	S		He	eavy Truc	cks (3+ A	4xles):	15		
Ve	hicle Speed:	45 mph			Vehicle	Mix					
Near/Far La	ne Distance:	76 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
Rai	rrier Height:	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0				Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	. ,	100.0 feet			Maine C	ource El	orestion.	o (in f	2041		
Centerline Dist.	to Observer:	100.0 feet			Noise 3			•	ei)		
Barrier Distance	to Observer:	0.0 feet			A de elle	Autos m Trucks		000			
Observer Height (	Above Pad):	5.0 feet						000	Grade Ad	iuetmont	. 0.0
Pa	ad Elevation:	0.0 feet			Heat	y Trucks	s. 8.	006	Grade Auj	usimeni	. 0.0
Ros	ad Elevation:	0.0 feet			Lane Eq	uivalent	Distan	ce (in i	feet)		
I	Road Grade:	0.0%				Autos	s: 92.	547			
	Left View:	-90.0 degre	es		Mediu	m Trucks	s: 92.	504			
	Right View:	90.0 degre	es		Hear	y Trucks	s: 92.	547			
FHWA Noise Mode	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresr	nel	Barrier Att	en Bei	rm Atten
Autos:	68.46	0.20		-4.	11	-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45	-17.04		-4.	11	-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-21.00		-4.	11	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (witho	ut Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hour			Leq I	Evening		Night		Ldn		NEL
Autos:	63.3	-	61.4		59.7		53.6	-	62.2	-	62.9
Medium Trucks:	57.	-	55.6		49.2		47.7		56.1		56.4
Heavy Trucks: Vehicle Noise:	57.5 65.5		56.5 63.4		47.5 60.3		48.7 55.6		57.1 64.2		57.2 64.6
					60.3		55.0	,	04.2		04.6
Centerline Distant	ce to Noise Co	ntour (in feet	)	70	dBA	65.	dBA		60 dBA	55	dBA
			I dn:		41	8			189		107
			NFI:		44	-	4		203		137
		Ci	VLL.			5	-		200	-	101

	FHWA	-RD-77-108 H	IGHWAY	NOISE PI	REDICTI	ON MODE	L		
Road Nam	io: Year 2016 Wi ne: Newport CTR nt: South of New	,	le			Name: NN umber: 821			
	SPECIFIC INP	UT DATA					DEL INPUT	S	
Highway Data				Site Con	ditions	Hard = 10	, Soft = 15)		
Average Daily	Traffic (Adt): 14,	200 vehicles				Aut	os: 15		
Peak Hour	Percentage:	10%				cks (2 Axle	-/		
Peak H	lour Volume: 1,	420 vehicles		He	avy Truc	ks (3+ Axle	es): 15		
Ve	hicle Speed:	45 mph		Vehicle	Mix				
Near/Far La	ne Distance:	76 feet		Veh	icleType	Da	y Evening	Night	Daily
Site Data					Α	utos: 77.	5% 12.9%	9.6%	97.42%
Bai	rrier Heiaht:	0.0 feet		M	edium Tr	ucks: 84.	.8% 4.9%	10.3%	1.84%
Barrier Type (0-W		0.0		F	Heavy Tr	ucks: 86	.5% 2.7%	10.8%	0.74%
Centerline Dis	st. to Barrier: 1	100.0 feet		Noise St	nurce Flo	evations (i	n feet)		
Centerline Dist.	to Observer: 1	100.0 feet		710,00 0	Autos				
Barrier Distance	to Observer:	0.0 feet		Mediu	m Trucks				
Observer Height (	'Above Pad):	5.0 feet			v Trucks			liustment	0.0
Pa	ad Elevation:	0.0 feet						,	
	ad Elevation:	0.0 feet		Lane Eq		Distance (			
	Road Grade:	0.0%			Autos				
		-90.0 degrees			m Trucks				
	Right View:	90.0 degrees		Heav	y Trucks	: 92.547	,		
FHWA Noise Mode									
VehicleType			Distance		Road	Fresnel	Barrier At		m Atten
Autos:	68.46	-0.43	-4.		-1.20	-4.		000	0.000
Medium Trucks:	79.45	-17.67	-4.		-1.20	-4.		000	0.000
Heavy Trucks:	84.25	-21.62	-4.	11	-1.20	-5.	16 0.	000	0.000
Unmitigated Noise									
,,	Leq Peak Hour	Leq Day		Evening	Leq I	-	Ldn		NEL
Autos:	62.7	60		59.1		53.0	61.		62.2
Medium Trucks:	56.5	55		48.6		47.1	55.		55.8
Heavy Trucks:	57.3	55		46.9		48.1	56.		56.6
Vehicle Noise:	64.6	62	8	59.7		55.0	63.	5	64.0
Centerline Distant	ce to Noise Con	tour (in feet)							

Ldn: CNEL:

Tuesday, May 29, 2012

	FH'	WA-RD-77-1	08 HIGI	HWAY	NOISE P	REDICTIO	N MOD	EL			
Road Na	rio: Year 2016 me: Santa Ros ent: North of Sa	a				Project N Job Nu	lame: N mber: 8				
SITE	SPECIFIC IN	NPUT DATA	١.						L INPUTS	S	
Highway Data					Site Cor	nditions (l	Hard = 1	0, Sc	ft = 15)		
Average Daily	/ Traffic (Adt):	3,800 vehic	les				Α	utos:	15		
Peak Hou	r Percentage:	10%				edium Truc			15		
Peak	Hour Volume:	380 vehic	les		He	eavy Truck	(3+ A)	des):	15		
V	ehicle Speed:	45 mph		-	Vehicle	Mix					
Near/Far L	ane Distance:	52 feet		ŀ		icleType	L	Dav	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 9						
R:	arrier Height:	0.0 feet			M	edium Tru	icks: 8	4.8%	4.9%	10.3%	1.84%
Barrier Type (0-V		0.0				Heavy Tru	icks: 8	6.5%	2.7%	10.8%	0.74%
	ist. to Barrier:	100.0 feet		-	Noiso S	ourco Elo	vations	(in fe	not)		
Centerline Dist	to Observer:	100.0 feet		-	Noise Source Elevations (in feet)						
Barrier Distance	Barrier Distance to Observer: 0.0 feet				Autos: 2.000 Medium Trucks: 4.000						
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0						t· 0.0
Pad Elevation: 0.0 feet						-				usanon	2. 0.0
Ro	oad Elevation:	0.0 feet			Lane Eq	uivalent l	Distance	e (in i	eet)		
	Road Grade:	0.0%				Autos:		07			
	Left View:	-90.0 deg	rees			m Trucks:					
	Right View:	90.0 deg	rees		Hear	vy Trucks:	96.6	80			
FHWA Noise Mod	del Calculation	ıs									
VehicleType	REMEL	Traffic Flow	/ Di	stance		Road	Fresne		Barrier Atte	en Be	rm Atten
Autos			-	-4.3		-1.20		4.87	0.0		0.000
Medium Trucks				-4.3		-1.20		4.97		000	0.000
Heavy Trucks	: 84.25	-27.3	5	-4.3	39	-1.20	4	5.16	0.0	000	0.000
Unmitigated Nois											
VehicleType	Leq Peak Ho			Leq E	vening	Leq N			Ldn		NEL
Autos		5.7	54.8		53.0		47.0		55.6		56.2
Medium Trucks		).5	49.0		42.6		41.1		49.5		49.7
Heavy Trucks		1.3	49.9		40.9		42.1		50.5		50.6
Vehicle Noise		3.5	56.8		53.7		49.0		57.5	ō	58.0
Centerline Distar	nce to Noise C	ontour (in fe	et)	70	-10.4	or :	D4 1		0 -104		
			Lake		dBA	65 d		6	0 dBA		5 dBA 147
Ldn: CNEL:				15 32 16 34		68 73		147 158			
			CIVEL:		10	34			13		100

	FH\	WA-RD-77-108	HIGH	WAY I	NOISE PI	REDICT	ION MO	DEL			
Road Nam	e: Santa Rosa	Without Projec a an Joaquin Hills					Name: lumber:		С		
SITE	SPECIFIC IN	IPUT DATA				١	NOISE I	MODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard =	: 10, S	oft = 15)		
Average Daily	Traffic (Adt):	16,800 vehicle	S					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	1,680 vehicle	S		He	avy Tru	cks (3+ ,	Axles):	15		
Ve	hicle Speed:	45 mph		H	Vehicle	Miv					
Near/Far La	ne Distance:	52 feet		F		icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	77.5%		9.6%	
Pa	rrier Heiaht:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	6 1.84%
Barrier Type (0-W		0.0			1	Heavy T	rucks:	86.5%	2.7%	10.8%	6 0.74%
Centerline Di	st. to Barrier:	100.0 feet		ŀ	Noise S	nurce F	levation	e (in f	oot)		
Centerline Dist.	to Observer:	100.0 feet		ŀ	NOISE S	Auto		000	eei)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck		000			
Observer Height (	(Above Pad):	5.0 feet				ry Truck		000	Grade Ad	iuetman	rt- 0.0
P	ad Elevation:	0.0 feet			rical	y Huck	s. o.	000	Orado Ad	ustmen	n. 0.0
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 96	607			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 96	.566			
	Right View:	90.0 degre	es		Heav	y Truck	s: 96	.608			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresi	nel	Barrier Att	en Be	erm Atten
Autos:	68.46	0.30		-4.3	39	-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45	-16.94		-4.3	39	-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-20.89		-4.3	39	-1.20		-5.16	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	r attei	nuation)						
VehicleType	Leq Peak Hou	ır Leq Day	/	Leq E	vening	Leq	Night		Ldn	(	ONEL
Autos:	63		61.3		59.5		53.4	4	62.1		62.7
Medium Trucks:	56	i.9	55.4		49.1		47.	5	56.0	)	56.2
Heavy Trucks:	57	'.8	56.3		47.3		48.0	6	56.9	9	57.0
Vehicle Noise:	65	5.0	63.3		60.1		55.4	4	64.0	)	64.4
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70	dBA	65	dBA	-	60 dBA	55	5 dBA
			Ldn:	4	40	8	35		184		397
		C	NEL:	4	43	9	92		197		425

Scenario: Year 2016 Without Project Road Name: Santa Rosa		
Highway Data  Average Daily Traffic (Adt): 7,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 790 vehicles Heavy Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15		
Average Daily Traffic (Adt): 7,900 vehicles Autos: 15 Peak Hour Percentage: 10% Medium Trucks (2 Axles): 15 Peak Hour Volume: 790 vehicles Heavy Trucks (3+ Axles): 15 Vehicle Species 46 meth	i)	
Peak Hour Percentage: 10% Medium Trucks (2 Axles): 15 Peak Hour Volume: 790 vehicles Heavy Trucks (3+ Axles): 15 Vehicle Species 45 meh		
Peak Hour Volume: 790 vehicles Heavy Trucks (3+ Axles): 15		
Vahiola Spand: 45 mph		
Vehicle Speed: 45 mph		
Near/Far Lane Distance: 52 feet VehicleType Day Eveni	ng Nic	tht Daily
Site Data Autos: 77.5% 12.9		.6% 97.429
Barrier Height: 0.0 feet Medium Trucks: 84.8% 4.9	9% 10	.3% 1.84%
Barrier Type (0-Wall, 1-Berm): 0.0 Heavy Trucks: 86.5% 2.7	<b>'</b> % 10	.8% 0.74%
Centerline Dist. to Barrier: 100.0 feet Noise Source Elevations (in feet)		
Centerline Dist to Observer: 100.0 foot		
Barrier Distance to Observer: 0.0 feet		
Observer Height (Above Pad): 5.0 foot	Adjuste	nent: 0.0
Pad Elevation: 0.0 feet Heavy Trucks: 8.006 Grade	Aujusti	ierii. U.U
Road Elevation: 0.0 feet Lane Equivalent Distance (in feet)		
Road Grade: 0.0% Autos: 96.607		
Left View: -90.0 degrees Medium Trucks: 96.566		
Right View: 90.0 degrees Heavy Trucks: 96.608		
FHWA Noise Model Calculations		
VehicleType REMEL Traffic Flow Distance Finite Road Fresnel Barrier	Atten	Berm Atten
Autos: 68.46 -2.97 -4.39 -1.20 -4.87	0.000	0.00
Medium Trucks: 79.45 -20.21 -4.39 -1.20 -4.97	0.000	0.00
Heavy Trucks: 84.25 -24.17 -4.39 -1.20 -5.16	0.000	0.00
Unmitigated Noise Levels (without Topo and barrier attenuation)		
VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn		CNEL
	58.8	59.
	52.7	52.
	53.6	53.
Vehicle Noise: 61.7 60.0 56.8 52.2	60.7	61.
Centerline Distance to Noise Contour (in feet)		
70 dBA 65 dBA 60 dBA		55 dBA
Ldn: 24 52 111		240
CNEL: 26 55 119		257

	FH\	WA-RD-77-108	HIGHWAY	NOISE P	REDICT	ION MODE	L	
	e: Santa Rosa		t			t Name: NN Number: 82°		
	SPECIFIC IN	IPUT DATA					DEL INPUTS	S
Highway Data				Site Co.	nditions	(Hard = 10	, Soft = 15)	
Peak H	Traffic (Adt): Percentage: our Volume: hicle Speed:	14,300 vehicle 10% 1,430 vehicle 45 mph			eavy Tru	Aut rucks (2 Axle icks (3+ Axle	es): 15	
Near/Far Lai	ne Distance:	52 feet		Vel	hicleTyp	e Da	y Evening	Night Daily
Site Data  Barrier Type (0-W	rier Height:	0.0 feet			fedium T	rucks: 84	5% 12.9% 8% 4.9% 5% 2.7%	9.6% 97.42% 10.3% 1.84% 10.8% 0.74%
Centerline Dis		100.0 feet			,			
Centerline Dist		100.0 feet		Noise S		levations (i		
Barrier Distance Observer Height (: Pa	to Observer:	0.0 feet 5.0 feet 0.0 feet 0.0 feet		Hea	Auto um Truci vy Truci	s: 4.000	Grade Adj	iustment: 0.0
	Road Grade:	0.0%		Lune Le	Auto			
,	Left View: Right View:	-90.0 degree			ım Truci vy Truci	s: 96.566	3	
FHWA Noise Mode	el Calculation							
VehicleType	REMEL	Traffic Flow	Distance	_	e Road	Fresnel	Barrier Atte	
Autos:	68.46	-0.40		.39	-1.20	-4.		
Medium Trucks: Heavy Trucks:	79.45 84.25			.39 .39	-1.20 -1.20	-4. -5.		
Unmitigated Noise	Levels (with	out Topo and	barrier atte	enuation)				
VehicleType	Leq Peak Hou	ur Leq Day	Leq	Evening	Leq	Night	Ldn	CNEL
Autos:	62	2.5	60.6	58.8	3	52.7	61.4	62.0
Medium Trucks:	56		54.7	48.4		46.8	55.3	
Heavy Trucks:	57	'.1	55.6	46.6	3	47.9	56.2	56.3
Vehicle Noise:	64		62.6	59.4	1	54.7	63.3	3 63.7
Centerline Distant	e to Noise Co	ontour (in feet					00 104	55 104
				0 dBA		dBA	60 dBA	55 dBA
			Ldn: VFI :	36 38		77 82	165 177	356 382
		Ci	VLL.	30		02	177	302

Tuesday, May 29, 2012

	FH\	WA-RD-77-10	HIGH	WAY	NOISE P	REDICTION	ON MC	DEL			
Road Na	rio: Year 2016 me: Avocado ent: North of Sa	,	ct			Project I Job Nu			C		
SITE	SPECIFIC IN	IPUT DATA				N	DISE	MODE	L INPUT	S	
Highway Data					Site Cor	ditions (	Hard :	= 10, S	oft = 15)		
Average Daily	/ Traffic (Adt):	5,000 vehicle	es		Autos: 15						
Peak Hou	r Percentage:	10%			Me	dium Tru	cks (2	Axles):	15		
Peak	Hour Volume:	500 vehicle	es		He	avy Truci	ks (3+	Axles):	15		
V	ehicle Speed:	40 mph		}	Vehicle	Miv					
Near/Far L	ane Distance:	36 feet		-		icleType		Dav	Evening	Night	Daily
Site Data							utos:	77.5%	Ü	9.6%	-
D	arrier Height:	0.0 feet			М	edium Tru	icks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-V		0.0			1	Heavy Tru	ıcks:	86.5%	2.7%	10.8%	0.74%
Centerline D	ist. to Barrier:	100.0 feet		-	Noise S	ource Ele	vatio	ns (in f	eet)		
Centerline Dist	to Observer:	100.0 feet		ŀ	Noise Source Elevations (in feet)  Autos: 2.000						
Barrier Distance	Barrier Distance to Observer: 0.0 feet				Medium Trucks: 4.000						
Observer Height	bserver Height (Above Pad): 5.0 feet				Heavy Trucks: 8.006 Grade Adjustment: 0.0						0.0
F	Pad Elevation: 0.0 feet					*				,	
Ro	oad Elevation:	0.0 feet		L	Lane Eq	uivalent	Distar	ice (in	feet)		
	Road Grade:	0.0%				Autos.		.412			
	Left View:	-90.0 degre	es		Mediu	m Trucks	: 98	.372			
	Right View:	90.0 degre	es		Heav	y Trucks	: 98	.413			
FHWA Noise Mod	del Calculation			I							
VehicleType	REMEL	Traffic Flow		stance		Road	Fres		Barrier Att		rm Atten
Autos		-4.45		-4.5		-1.20		-4.87		000	0.000
Medium Trucks				-4.5		-1.20		-4.97		000	0.000
Heavy Trucks	: 82.99	-25.64		-4.5	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Nois	se Levels (with	out Topo and	barri	er attei	nuation)						
VehicleType	Leq Peak Hot		_	Leq E	vening	Leq N			Ldn		NEL
Autos		5.3	54.4		52.7		46.	-	55.3	_	55.9
Medium Trucks		).3	48.8		42.4		40.	-	49.4		49.6
Heavy Trucks		.6	50.2		41.2		42.		50.8		50.9
Vehicle Noise		3.4	56.6		53.3		48.	8	57.	3	57.8
Centerline Distar	nce to Noise C	ontour (in fee	t)	70	-10.4	05	ID 4	_	00 dD4		-/D4
			I dn:		dBA	65 d			60 dBA		dBA 143
		_	:NEL:		14 31 15 33				143		
		C	IVEL:		10	33	,		7.1		100

	FHV	VA-RD-77-108	HIGH	WAY N	NOISE P	REDICT	ION MC	DEL			
Road Nam	io: Year 2016 vie: Avocado nt: South of Sa	,	t				t Name: lumber:		С		
SITE	SPECIFIC IN	PUT DATA				1	NOISE	MODE	L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 1	15,500 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	1,550 vehicle	s		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	40 mph		H	Vehicle	Mix					
Near/Far La	ne Distance:	36 feet		F		icleType	e	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
Bai	rrier Height:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	st. to Barrier:	100.0 feet		l.	Noise S	ource E	levation	ıs (in fe	eet)		
Centerline Dist.		100.0 feet		F		Auto		.000	,		
Barrier Distance		0.0 feet			Mediu	m Truck	s: 4	.000			
Observer Height (		5.0 feet			Hear	y Truck	s: 8	.006	Grade Ad	justmen	t: 0.0
	ad Elevation:	0.0 feet						,,			
	ad Elevation:	0.0 feet			Lane Eq				eet)		
1	Road Grade:	0.0%				Auto		.412			
	Left View:	-90.0 degre				m Truck		.372			
	Right View:	90.0 degre	es		Hea	y Truck	s: 98	.413			
FHWA Noise Mode	el Calculation:	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	66.51	0.46		-4.5	•	-1.20		-4.87		000	0.000
Medium Trucks:		-16.77		-4.5	•	-1.20		-4.97		000	0.000
Heavy Trucks:	82.99	-20.73		-4.5	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise		-	_								
VehicleType	Leq Peak Hou		_	Leq E	vening	,	Night		Ldn		NEL
Autos:	61		59.4		57.6		51.	-	60.2		60.8
Medium Trucks:	55		53.7		47.4		45.	-	54.3		54.5
Heavy Trucks: Vehicle Noise:	56 63		55.1 61.5		46.1 58.3		47. 53.		55.1 62.1		55.8 62.7
Centerline Distant					50.5		55.	•	02		02.7
Senterine Distant	ce to Moise CC	nnour (iii leet		70	dBA	65	dBA	6	i0 dBA	55	dBA
			Ldn:	3	0	-	66		141	-	304
		C	NEL:	3	13		70		151		326

	FHW	A-RD-77-108	HIGHW	AY NOISE F	PREDICT	ION MOI	DEL			
Road Nam	o: Year 2016 V e: Macarthur nt: North of Bor	,	!			Name: lumber:		0		
SITE S	SPECIFIC IN	PUT DATA			N	IOISE N	/ODE	L INPUTS	S	
Highway Data				Site Co	nditions	(Hard =	10, So	ft = 15)		
Average Daily	Traffic (Adt): 8	0,400 vehicles	3				Autos:	15		
Peak Hour	Percentage:	10%			ledium Tr			15		
Peak H	our Volume:	3,040 vehicles	\$	H	leavy Tru	cks (3+ A	(xles	15		
Vei	hicle Speed:	45 mph		Vehicle	Miv					
Near/Far Lai	ne Distance:	76 feet			hicleType	,	Dav	Evening	Night	Daily
Site Data							77.5%	v	9.6%	
Rai	rier Height:	0.0 feet		/	∕ledium T	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0			Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	. ,	100.0 feet		Malaa	F		- /! 6-	-41		
Centerline Dist.	to Observer:	100.0 feet		Noise 3	Source E		•	et)		
Barrier Distance	to Observer:	0.0 feet			Auto		000			
Observer Height (	Above Pad):	5.0 feet			um Truck		000	Grade Adj	i rotmont	
Pa	nd Elevation:	0.0 feet		Hea	avy Truck	s: 8.0	006	Grade Adj	usimeni	0.0
Ros	ad Elevation:	0.0 feet		Lane E	quivalen	t Distand	ce (in f	eet)		
F	Road Grade:	0.0%			Auto	s: 92.	547			
	Left View:	-90.0 degree	es	Medi	um Truck	s: 92.	504			
	Right View:	90.0 degree	es	Hea	avy Truck	s: 92.	547			
FHWA Noise Mode	el Calculations									
VehicleType	REMEL	Traffic Flow	Distai	nce Finit	e Road	Fresn	iel .	Barrier Atte	en Ber	m Atten
Autos:	68.46	7.10		-4.11	-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45	-10.14		-4.11	-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-14.09		-4.11	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	Levels (witho	ut Topo and	barrier a	attenuation	)					
VehicleType	Leq Peak Hour			eq Evening		Night		Ldn		VEL
Autos:	70.		68.3	66.	-	60.5		69.2	-	69.8
Medium Trucks:	64.0	-	62.5	56.		54.6		63.0		63.3
Heavy Trucks:	64.8		63.4	54.		55.6		64.0		64.1
Vehicle Noise:	72.		70.3	67.	2	62.5	)	71.1		71.5
Centerline Distance	e to Noise Co	ntour (in feet	)	70 104	05	10.4				10.4
			L	70 dBA		dBA	6	0 dBA		dBA
			Ldn:	118	_	53		546	,	176
		CI	IFI:	126		72		585		261

	FH\	WA-RD-77-108	HIGHV	VAY NO	DISE P	REDICT	ION MO	DEL			
Road Nam	io: Year 2016 ne: Avocado nt: North of Co	Without Project past Highway	t				t Name: lumber:		0		
SITE	SPECIFIC IN	IPUT DATA				1	NOISE N	ЛОDE	L INPUT	S	
Highway Data				S	ite Cor	nditions	(Hard =	10, Sc	ft = 15)		
Average Daily	Traffic (Adt):	11,000 vehicle	S					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2 /	Axles):	15		
Peak H	lour Volume:	1,100 vehicle	s		He	eavy Tru	cks (3+ /	Axles):	15		
Ve	hicle Speed:	40 mph		V	ehicle	Miv					
Near/Far La	ne Distance:	36 feet		-		nicleType	9	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
Ba	rrier Height:	0.0 feet			M	ledium T	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Di		100.0 feet		N	oise S	ource E	levation	s (in fe	et)		
Centerline Dist.		100.0 feet				Auto	s: 2.	000			
Barrier Distance		0.0 feet			Mediu	m Truck	s: 4.	000			
Observer Height (		5.0 feet			Hear	vy Truck	s: 8.	006	Grade Ad	justment	0.0
	ad Elevation:	0.0 feet		_		·					
	ad Elevation:	0.0 feet		L	ane Eq		t Distan		eet)		
	Road Grade:	0.0%				Auto		412			
	Left View:	-90.0 degre				m Truck		372			
	Right View:	90.0 degre	es		Hea	vy Truck	s: 98.	413			
FHWA Noise Mod											
VehicleType	REMEL	Traffic Flow	Dista		Finite	Road	Fresr		Barrier Att		m Atten
Autos:	66.51	-1.03		-4.51		-1.20		-4.87		000	0.00
Medium Trucks:	77.72			-4.51		-1.20		-4.97		000	0.00
Heavy Trucks:		-22.22		-4.51		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise							A Contact	1	Ldn		NEL
VehicleType Autos:	Leq Peak Hou		57.9	Leq Eve	ening 56.1		Night 50.1		58.7		VEL 59.:
Medium Trucks:	53		52.2		45.9		44.3		52.8		53.0
Heavy Trucks:	55		53.6		45.9		45.9		54.2	-	54.3
Vehicle Noise:			60.0		56.8		52.2		60.8		61.
Centerline Distant	ce to Noise Co	ontour (in feet	)								
		(	Ĺ	70 dl	BA	65	dBA	6	0 dBA	55	dBA
			Ldn:	24			52		112	2	42
		C	NEL:	26			56		120	2	59

Tuesday, May 29, 2012

	FH	IWA-RD-7	7-108 HI	GHWAY	NOISE P	REDICTION	ON M	ODEL			
Road Na	ario: Year 2016 me: Macarthur ent: South of E		•			Project I Job No			C		
SITE	SPECIFIC I	NIDLIT DA	ΔΤΔ			N	OISE	MODE	L INPUT	S	
Highway Data	or Ecurio i	INI OI DI	117		Site Cor	nditions (					
Average Dail	y Traffic (Adt):	69 100 v	ehicles					Autos			
	ır Percentage:	10%	01110100		Me	edium Tru	icks (2	Axles):			
	Hour Volume:	6.910 v	ehicles			eavy Truc					
	/ehicle Speed:	45 m					. ( .	/			
	ane Distance:	76 fe			Vehicle Mix						
					Veh	icleType		Day	Evening	Night	Daily
Site Data						A ledium Tri	utos:	77.5%		9.6%	
	arrier Height:	0.0	feet					84.8%		10.3%	
Barrier Type (0-	. ,	0.0				Heavy Tr	ucks:	86.5%	o 2.1%	10.8%	0.74%
	Dist. to Barrier:	100.0 1			Noise S	ource Ele	evatio	ns (in f	eet)		
Centerline Dis		100.0 1	feet			Autos	: :	2.000			
Barrier Distanc		0.0 1			Mediu	m Trucks		4.000			
Observer Heigh		5.0 1			Hear	vy Trucks	: 1	8.006	Grade Ad	justment	0.0
	Pad Elevation:	0.0 1				•					
R	oad Elevation:	0.0 1			Lane Eq	uivalent			teet)		
	Road Grade:	0.0%				Autos		2.547			
	Left View:		degrees			m Trucks		2.504			
	Right View:	90.0	degrees		Hea	vy Trucks	: 9	2.547			
FHWA Noise Mo											
VehicleType	REMEL	Traffic I		Distance		Road	Fre	snel	Barrier Att		m Atten
Autos		-	6.44	-4.		-1.20		-4.87		000	0.00
Medium Trucks			10.79	-4.		-1.20		-4.97		000	0.00
Heavy Trucks			14.75	-4.		-1.20		-5.16	0.0	000	0.00
Unmitigated Noi						г					
VehicleType	Leq Peak Ho		q Day		Evening	Leq I			Ldn		NEL
Autos		9.6	67.		65.9		59		68.	-	69.
Medium Trucks		3.3	61.	-	55.5		53		62.4		62.
Heavy Trucks		4.2	62.		53.7		_	5.0	63.3		63.
Vehicle Noise		1.4	69.	/	66.5		61	1.9	70.	4	70.9
Centerline Dista	nce to Noise C	contour (i	n feet)	7/	dBA	65.0	4DA		60 dBA	FE	dBA
			l di		106	22			493		063
			CNFI		114	24			529		140
			CIVEL		114	24	Ю		529	1,	140

	FH	WA-RD-77-10	08 HIG	HWAY	NOISE P	REDICTI	ON MO	DEL			
	e: Macarthur					Project Job N	Name: umber:		С		
SITE	SPECIFIC II	NPUT DATA	\						L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	68,100 vehic	les					Autos:	15		
Peak Hour	Percentage:	10%				edium Tru					
Peak H	lour Volume:	6,810 vehic	les		He	eavy Truc	ks (3+ )	4xles):	15		
Ve	hicle Speed:	45 mph			Vehicle	Mix					
Near/Far La	ne Distance:	76 feet				icleType		Day	Evening	Night	Daily
Site Data						- /	Autos:	77.5%	12.9%	9.69	6 97.42%
Ra	rrier Heiaht:	0.0 feet			M	edium Tı	ucks:	84.8%	4.9%	10.39	6 1.84%
Barrier Type (0-W		0.0				Heavy Tr	ucks:	86.5%	2.7%	10.89	6 0.74%
Centerline Di		100.0 feet			Noise S	ourco El	ovation	c (in f	not)		
Centerline Dist.	to Observer:	100.0 feet			Noise 3	Auto:		000	cei)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Trucks		000			
Observer Height (	Above Pad):	5.0 feet				vy Trucks		006	Grade Ad	livetmar	nt: 0.0
Pa	ad Elevation:	0.0 feet			i ica	ry Trucks	s. o.	000	Orade Ad	justinoi	n. 0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalent	Distan	ce (in	feet)		
	Road Grade:	0.0%				Autos	s: 92.	547			
	Left View:	-90.0 degi	ees		Mediu	m Trucks	s: 92.	504			
	Right View:	90.0 degi	ees		Hea	y Trucks	s: 92.	547			
FHWA Noise Mode	el Calculation	าร									
VehicleType	REMEL	Traffic Flow	Di	istance	Finite	Road	Fresi	nel	Barrier Att	en Be	erm Atten
Autos:	68.46	6.3	8	-4.	11	-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45		-	-4.		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-14.8	1	-4.	11	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (with	hout Topo an	d barr	ier atte	nuation)						
VehicleType	Leq Peak Ho	ur Leq D	ay	Leq I	Evening	Leq	Night		Ldn	(	CNEL
Autos:	6	9.5	67.6		65.9		59.8	3	68.4	4	69.0
Medium Trucks:	-	3.3	61.8		55.4		53.9	-	62.3	-	62.6
Heavy Trucks:		4.1	62.7		53.7		54.9		63.3		63.4
Vehicle Noise:	7	1.4	69.6		66.5		61.8	3	70.3	3	70.8
Centerline Distant	ce to Noise C	ontour (in fe	et)								
				70	dBA	65	dBA	- 6	60 dBA	5	5 dBA
			Ldn:	1	105	22	27		489	_	1,053
			CNEL:	1	113	24	43		524	-	1,129

	FHW	/A-RD-77-108	HIGHW	AY N	OISE PI	REDICT	ION MC	DEL			
Road Nam	io: Year 2016 Vie: Macarthur	,	t				Name: lumber:		C		
SITE	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data				S	ite Con	ditions	(Hard =	: 10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 3	8,800 vehicle	S					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	3,880 vehicle	S		He	avy Tru	cks (3+.	Axles):	15		
Ve	hicle Speed:	45 mph		V	/ehicle	Miv					
Near/Far La	ne Distance:	76 feet		ď		icleType		Dav	Evening	Night	Daily
Site Data							Autos:	77.5%	-	9.6%	
Rai	rrier Height:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-W	-	0.0			- 1	Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	. ,	100.0 feet			Inina C	ource E	lovestion	o (in f	2041		
Centerline Dist.	to Observer:	100.0 feet		^	ioise S				et)		
Barrier Distance	to Observer:	0.0 feet				Auto		000			
Observer Height (	Above Pad):	5.0 feet				m Truck		000	Crada Ad	i rotmont	
Pa	ad Elevation:	0.0 feet			Heav	y Truck	s: 8.	006	Grade Adj	usuneni	0.0
Roa	ad Elevation:	0.0 feet		L	ane Eq	uivalen	t Distan	ce (in	eet)		
ı	Road Grade:	0.0%				Auto	s: 92	547			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 92	504			
	Right View:	90.0 degree	es		Heav	y Truck	s: 92	547			
FHWA Noise Mode	el Calculations	;									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresi	nel	Barrier Att	en Ber	m Atten
Autos:	68.46	3.94		-4.11		-1.20		-4.87	0.0	000	0.00
Medium Trucks:	79.45	-13.30		-4.11		-1.20		-4.97	0.0	000	0.00
Heavy Trucks:	84.25	-17.26		-4.11		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise	e Levels (witho	out Topo and	barrier	attenı	uation)						
VehicleType	Leq Peak Hou			.eq Ev	ening	Leq	Night		Ldn		VEL
Autos:	67.	1	65.2		63.4		57.	4	66.0	)	66.
Medium Trucks:	60.	8	59.3		53.0		51.	4	59.9	)	60.
Heavy Trucks:	61.		60.3		51.2		52.		60.8		61.
Vehicle Noise:	68.	9	67.2		64.0		59.	3	67.9	9	68.
Centerline Distant	ce to Noise Co	ntour (in feet	)								
			L	70 d			dBA	- 6	i0 dBA		dBA
			Ldn:	72	-		56		336		23
		CI	VEL:	78	3	1	67		360	7	76

	FHV	VA-RD-77-108	HIGHW	AY NO	DISE PI	REDICT	ION MC	DEL			
Road Name	e: Macarthur	Without Projec an Joaquin Hills					Name: umber:		С		
SITE S	SPECIFIC IN	IPUT DATA				N	IOISE	MODE	L INPUT	S	
Highway Data				S	ite Con	ditions	(Hard =	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	43,400 vehicle	S					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15		
Peak H	our Volume:	4,340 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Vel	nicle Speed:	45 mph		ν	ehicle	Mix					
Near/Far Lar	ne Distance:	76 feet				icleType		Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.429
Bar	rier Heiaht:	0.0 feet			M	edium T	rucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-Wa	all, 1-Berm):	0.0			F	leavy T	rucks:	86.5%	2.7%	10.8%	0.749
Centerline Dis		100.0 feet		Ν	loise So	ource E	evation	ıs (in fe	eet)		
Centerline Dist. t		100.0 feet				Auto	s: 2	.000			
Barrier Distance t		0.0 feet			Mediu	m Truck	s: 4	.000			
Observer Height (	,	5.0 feet			Heav	y Truck	s: 8	.006	Grade Ad	justment	: 0.0
	d Elevation:	0.0 feet		-				,,			
	d Elevation:	0.0 feet		L	ane Eq	uivalen			reet)		
F	Road Grade:	0.0%				Auto		.547			
	Left View: Right View:	-90.0 degree				m Truck vy Truck		.504			
			#8		1 Icav	y Huck	3. 32	.547			
FHWA Noise Mode			D: -		F: :						***
VehicleType	REMEL	Traffic Flow 4.42	Dista			Road	Fres	_	Barrier Att		m Atten
Autos: Medium Trucks:	68.46 79.45	-12.81		-4.11 -4.11		-1.20 -1.20		-4.87 -4.97		000	0.00
Heavy Trucks:	79.45 84.25	-16.77		-4.11		-1.20		-5.16		000	0.00
Unmitigated Noise			<b>.</b>			-1.20		-0.10	0.0	,,,,	0.00
	Leg Peak Hou			eq Ev		l ea	Night		l dn	C	NFI
Autos:	67		65.7		63.9	209	57.	9	66.	_	67.
Medium Trucks:	61		59.8		53.5		51.	-	60.4	-	60.
Heavy Trucks:	62	.2	60.7		51.7		53.	0	61.3	3	61.
Vehicle Noise:	69	.4	67.7		64.5		59.	8	68.	4	68.
Centerline Distanc	e to Noise Co	ontour (in feet	)								
		-		70 dl			dBA	6	0 dBA		dBA
			Ldn:	78		1	68		362	7	79
			VFI:	84			80		388		36

Tuesday, May 29, 2012

F	HWA-RD-77-108	B HIGHWA	Y NOISE PI	REDICTIO	N MODEL			
Scenario: Year 20	6 Without Project	ct		Project N	ame: NNCI	PC		
Road Name: Macarth	ır			Job Nur	nber: 8211			
Road Segment: South of	San Miguel							
SITE SPECIFIC	INPUT DATA					EL INPUT	S	
Highway Data			Site Cor	ditions (F	lard = 10, S	oft = 15)		
Average Daily Traffic (Adt)	32,400 vehicle	es			Autos	: 15		
Peak Hour Percentage	10%		Me	dium Truc	ks (2 Axles)	: 15		
Peak Hour Volume	3,240 vehicle	es	He	avy Truck	s (3+ Axles)	: 15		
Vehicle Speed			Vehicle	Mix				
Near/Far Lane Distance	76 feet		Veh	icleType	Day	Evening	Night	Daily
Site Data				Au	tos: 77.59	% 12.9%	9.6%	97.42%
Barrier Height	. 0.0 feet		М	edium Tru	cks: 84.89	% 4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm)				Heavy Tru	cks: 86.59	% 2.7%	10.8%	0.74%
Centerline Dist. to Barrier	100.0 feet		Noise S	ource Elev	vations (in	feet)		
Centerline Dist. to Observer	100.0 feet			Autos:	2.000	,		
Barrier Distance to Observer	0.0 feet		Mediu	m Trucks:	4.000			
Observer Height (Above Pad)	5.0 feet			y Trucks:	8.006	Grade Ad	iustment.	0.0
Pad Elevation	0.0 feet							
Road Elevation	0.0 feet		Lane Eq		Distance (in	feet)		
Road Grade	0.0%			Autos:	92.547			
Left View	ou.o dog.c	es		m Trucks:	92.504			
Right View	90.0 degre	ees	Heav	y Trucks:	92.547			
FHWA Noise Model Calculati	ons							
VehicleType REMEL	Traffic Flow	Distant		Road	Fresnel	Barrier Att		m Atten
Autos: 68.			4.11	-1.20	-4.87		000	0.000
Medium Trucks: 79.			4.11	-1.20	-4.97		000	0.000
Heavy Trucks: 84.	25 -18.04		4.11	-1.20	-5.16	0.0	000	0.000
Unmitigated Noise Levels (w								
VehicleType Leq Peak F			q Evening	Leq N	•	Ldn		VEL
Autos:	66.3	64.4	62.6		56.6	65.2	-	65.8
Medium Trucks:	60.1	58.5	52.2		50.6	59.		59.3
Heavy Trucks:	60.9	59.5	50.4		51.7	60.0		60.2
Vehicle Noise:	68.1	66.4	63.2		58.6	67.	1	67.6
Centerline Distance to Noise	Contour (in fee		70 /04			00 104		10.4
		I dn:	70 dBA	65 dE		60 dBA 298		dBA 41
		Lan: :NFI :	64 69	138 148		319	-	41 88

Tuesday, May 29, 2012

	FH\	WA-RD-77-108	HIGH	IWAY N	OISE P	REDICT	ION M	ODEL			
	e: Macarthur	Without Projec	t			.,	t Name: lumber:	8211	С		
SITE S	SPECIFIC IN	IPUT DATA				1	VOISE	MODE	L INPUT	S	
Highway Data				S	ite Cor	nditions	(Hard	= 10, Sc	oft = 15)		
Average Daily 7	Fraffic (Adt):	32,500 vehicle	3					Autos:	15		
Peak Hour F	Percentage:	10%			Me	edium Tı	rucks (2	Axles):	15		
Peak Ho	our Volume:	3,250 vehicle	3		He	eavy Tru	cks (3+	Axles):	15		
Veh	nicle Speed:	45 mph		1	/ehicle	Mix					
Near/Far Lan	ne Distance:	76 feet			Veh	icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
Barı	rier Height:	0.0 feet			М	edium 7	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wa		0.0				Heavy 7	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis		100.0 feet		^	loise S	ource E	levatio	ns (in fe	eet)		
Centerline Dist. to	o Observer:	100.0 feet				Auto		2.000	,		
Barrier Distance to		0.0 feet			Mediu	m Truck	(s: 4	.000			
Observer Height (A	,	5.0 feet			Hear	y Truck	s: 8	3.006	Grade Ad	justment	: 0.0
	d Elevation:	0.0 feet		<u> </u>		•					
	d Elevation:	0.0 feet		L	ane Eq			nce (in i	feet)		
R	Road Grade:	0.0%				Auto		2.547			
	Left View:	-90.0 degree				m Truck		2.504			
	Right View:	90.0 degree	es		Hea	y Truck	(S: 92	2.547			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fres		Barrier Att		rm Atten
Autos:	68.46	3.17		-4.11		-1.20		-4.87		000	0.000
Medium Trucks:	79.45			-4.11		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-18.03		-4.11		-1.20		-5.16	0.0	000	0.000
Unmitigated Noise											
	Leq Peak Hou		_	Leq Ev			Night		Ldn		NEL
Autos:	66		64.4		62.6		56		65.2	_	65.8
Medium Trucks:	60		58.6		52.2		50		59.		59.3
Heavy Trucks: Vehicle Noise:	60		59.5 66.4		50.5 63.3		51 58		60.		60.2
Centerline Distance					30.0		- 50		07.		07.0
Sometime Distance	J.J 110138 01	JJui (iii 1661		70 d	BA	65	dBA	6	i0 dBA	55	dBA
			Ldn:	64	1	1	38		298		643
		CI	VEL:	69	)	1	49		320	6	90

	FHV	VA-RD-77-108	HIGHW <i>A</i>	Y NOISE P	REDICTI	ON MO	DEL			_
Road Nam	io: Year 2016 Ve: Eastbluff/Fo	ord/Bonita Cyn	t		Project Job No	Name: umber:		С		
SITE	SPECIFIC IN	IPUT DATA			N	OISE N	MODE	L INPUT	S	
Highway Data				Site Co.	nditions (	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt): 1	12,200 vehicle	8				Autos:	15		
Peak Hour	Percentage:	10%		M	edium Tru	icks (2 )	4xles):	15		
Peak H	lour Volume:	1,220 vehicle	S	Н	eavy Truc	ks (3+ )	4xles):	15		
Ve	hicle Speed:	45 mph		Vehicle	Miv					
Near/Far La	ne Distance:	52 feet			nicleType		Dav	Evening	Night	Daily
Site Data				¥ C/		utos:	77.5%	-		97.42%
Pa	rrier Height:	0.0 feet			ledium Tr	ucks:	84.8%		10.3%	
Barrier Type (0-W		0.0 reet 0.0			Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Di	. ,	100.0 feet								
Centerline Dist.		100.0 feet		Noise S	ource Ele		•	eet)		
Barrier Distance		0.0 feet			Autos		000			
Observer Height (		5.0 feet			ım Trucks		000			
	ad Flevation:	0.0 feet		Hea	vy Trucks	8.	006	Grade Ad	justment	: 0.0
	ad Elevation:	0.0 feet		Lane Ed	uivalent	Distan	ce (in	feet)		
	Road Grade:	0.0%			Autos	: 96.	607			
	I eft View:	-90.0 degree	20	Mediu	ım Trucks	: 96.	566			
	Right View:	90.0 degree		Hea	vy Trucks	: 96.	608			
FHWA Noise Mod	el Calculation:	s								
VehicleType	REMEL	Traffic Flow	Distan	ce Finite	Road	Fresi	nel	Barrier Att	en Ber	m Atten
Autos:	68.46	-1.09	-	4.39	-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45	-18.33		4.39	-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-22.28		4.39	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier a	ttenuation)						
VehicleType	Leq Peak Hou	ır Leq Day	Le	q Evening	Leq I	Vight		Ldn	C	NEL
Autos:	61		59.9	58.1		52.1		60.7		61.3
Medium Trucks:	55		54.0	47.7		46.1		54.6	-	54.8
Heavy Trucks:	56		55.0	45.9		47.2		55.5		55.7
Vehicle Noise:	63	.6	61.9	58.7		54.0	)	62.6	6	63.0
Centerline Distant	ce to Noise Co	ontour (in feet								
				70 dBA	65 0		(	60 dBA		dBA
			Ldn:	32	6	-		149	-	320
		CI	VEL:	34	7-	4		160	3	344

	FH\	WA-RD-77-108	HIGH	WAY NO	DISE P	REDICT	ION MO	DEL			
	e: Eastbluff/F	Without Project ord/Bonita Cyn mboree					t Name: Number:		PC		
SITE S	SPECIFIC IN	IPUT DATA				1	NOISE	MODE	L INPUT	S	
Highway Data				S	ite Cor	nditions	(Hard :	= 10, S	oft = 15)		
Average Daily T Peak Hour I		15,300 vehicle 10% 1,530 vehicle				edium Tr eavy Tru			15		
	nicle Speed:	45 mph	3				CAS (OT	Axicoj	. 10		
Near/Far Lar	,	52 feet		V	ehicle						
	ie Distance.	J2 166t			Vef	icleType		Day	Evening	Night	Daily
Site Data							Autos:	77.5%		9.6%	
Bar	rier Height:	0.0 feet				ledium T		84.89		10.3%	
Barrier Type (0-Wa	all, 1-Berm):	0.0				Heavy T	rucks:	86.5%	6 2.7%	10.8%	0.749
Centerline Dis	t. to Barrier:	100.0 feet			nise S	ource E	levation	ns (in t	eet)		
Centerline Dist. t	o Observer:	100.0 feet			0.00 0	Auto		.000	001)		
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Truck		.000			
Observer Height (/	Above Pad):	5.0 feet				vy Truck		.006	Grade Ad	iustmen	0.0
Pa	d Elevation:	0.0 feet									
Roa	d Elevation:	0.0 feet		L	ane Eq	uivalen	t Distar	ıce (in	feet)		
F	Road Grade:	0.0%				Auto	s: 96	.607			
	Left View:	-90.0 degre	es			m Truck		.566			
	Right View:	90.0 degre	es		Hea	vy Truck	rs: 96	.608			
FHWA Noise Mode				'							
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fres		Barrier Att		rm Atten
Autos:	68.46			-4.39		-1.20		-4.87		000	0.00
Medium Trucks:	79.45			-4.39		-1.20		-4.97		000	0.00
Heavy Trucks:	84.25			-4.39		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise										1	
	Leq Peak Ho			Leq Eve			Night		Ldn		NEL
Autos:		2.8	60.9		59.1		53.		61.7		62.
Medium Trucks:		5.5	55.0		48.6		47.		55.6	-	55.
Heavy Trucks:		'.4	55.9		46.9		48.		56.5		56.
Vehicle Noise:		1.6	62.9		59.7	'	55.	0	63.6	5	64.
Centerline Distance	e to Noise C	ontour (in feet	)	70 di	DΛ	65	dBA	1	60 dBA	- FF	dBA
			I dn:	37			80 80	1	173		373
		_	NFI:	40			86		186		100
		C	VLL.	40		,	00		100		+00

Tuesday, May 29, 2012

	FH\	WA-RD-77-108	HIGHV	VAY N	OISE PI	REDICT	ION MO	DEL			
	Eastbluff/F	Without Project ord/Bonita Cyn onita Canyon					Name: lumber:		PC .		
SITE SF	PECIFIC IN	IPUT DATA				1	NOISE N	/ODE	L INPUTS		
Highway Data				5	Site Cor	ditions	(Hard =	10, S	oft = 15)		
Average Daily Tr	affic (Adt):	10,600 vehicles	3					Autos	: 15		
Peak Hour Pe	ercentage:	10%			Me	dium Tr	ucks (2 A	(Axles	: 15		
Peak Hou	ır Volume:	1,060 vehicles	3		He	avy Tru	cks (3+ A	(Axles	: 15		
Vehic	cle Speed:	45 mph		,	/ehicle	Miv					
Near/Far Lane	Distance:	52 feet		F		icleType	9	Dav	Evening	Night	Dailv
Site Data								77.59		9.6%	97.42%
Rarri	er Heiaht:	0.0 feet			М	edium T	rucks:	84.89	6 4.9%	10.3%	1.84%
Barrier Type (0-Wal	I, 1-Berm):	0.0			1	Heavy T	rucks:	86.5%	6 2.7%	10.8%	0.74%
Centerline Dist.		100.0 feet		1	Voise S	ource E	levation	s (in t	feet)		
Centerline Dist. to		100.0 feet				Auto	s: 2.0	000			
Barrier Distance to		0.0 feet			Mediu	m Truck	s: 4.0	000			
Observer Height (Al		5.0 feet			Heav	y Truck	s: 8.0	006	Grade Adju	stment.	0.0
	Elevation:	0.0 feet		,	ano Eo	uivalon	t Distan	oo (in	foot)		
	elevation: ad Grade:	0.0 feet 0.0%		· ·	ane Ly	Auto		607	ieei)		
AC.	l eft View:	-90.0 degree			Mediu	m Truck		566			
F	Right View:	90.0 degree				y Truck		608			
FHWA Noise Model	Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresn	iel	Barrier Atte	n Ber	m Atten
Autos:	68.46	-1.70		-4.39	)	-1.20		-4.87	0.00	10	0.000
Medium Trucks:	79.45			-4.39		-1.20		-4.97		-	0.000
Heavy Trucks:	84.25			-4.39		-1.20		-5.16	0.00	10	0.000
Unmitigated Noise L	•										
,,	eq Peak Ho			Leq Ev			Night		Ldn	CI	VEL
Autos: Medium Trucks:			59.3 53.4		57.5 47.1		51.4 45.5		60.1 54.0		60.7 54.2
Heavy Trucks:	-		54.3		47.1		45.5		54.0		55.0
Vehicle Noise:			61.3		45.3 58.1		53.4		62.0		62.4
					JU. I		JJ.4		02.0		02.4
Centerline Distance	to Noise C	ontour (in feet	'	70 a	IBA	65	dBA	Ī	60 dBA	55	dBA
			Ldn:	29	)	-	63		135	2	92
			IFI:	31			67		145		13

	FH	WA-RD-77-10	8 HIGI	HWAY	NOISE P	REDICT	ON MO	DEL			
	e: Eastbluff/F	Without Proje ord/Bonita Cy nita Canyon				.,	Name: umber:		С		
SITE S	SPECIFIC II	NPUT DATA				Ν	IOISE N	ИODE	L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	39,300 vehic	es					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tru	icks (2 /	Axles):	15		
Peak H	our Volume:	3,930 vehic	es		He	eavy Truc	cks (3+ A	Axles):	15		
Vei	hicle Speed:	45 mph			Vehicle	Mix					
Near/Far Lai	ne Distance:	52 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data								77.5%		9.6	,
Rai	rier Heiaht:	0.0 feet			М	edium Ti	rucks:	84.8%	4.9%	10.3	% 1.84%
Barrier Type (0-W		0.0				Heavy Ti	rucks:	86.5%	2.7%	10.8	% 0.74%
Centerline Dis	. ,	100.0 feet			Noise S	ouroo El	lovestion	o (in f	0.041		
Centerline Dist.	to Observer:	100.0 feet			Noise 3	Auto:		000	eet)		
Barrier Distance	to Observer:	0.0 feet			Modiu	m Truck:		000			
Observer Height (.	Above Pad):	5.0 feet				vy Truck		006	Grade Ad	iuetma	nt: 0.0
Pa	d Elevation:	0.0 feet			i icai	y much	3. 0.	000	Orado Au,	ustric	и. о.о
Roa	ad Elevation:	0.0 feet			Lane Eq				feet)		
F	Road Grade:	0.0%				Auto	s: 96.	607			
	Left View:	-90.0 degr	ees		Mediu	m Truck	s: 96.	566			
	Right View:	90.0 degr	ees		Hear	y Truck	s: 96.	608			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow		stance		Road	Fresr		Barrier Att		erm Atten
Autos:	68.46		-	-4.:		-1.20		-4.87		000	0.000
Medium Trucks:	79.45		-	-4.		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25			-4.:		-1.20		-5.16	0.0	000	0.000
Unmitigated Noise											
	Leq Peak Ho		,	Leq I	Evening	,	Night		Ldn		CNEL
Autos: Medium Trucks:	-	6.9 0.6	65.0 59.1		63.2 52.7		57.1 51.2		65.8 59.7		66.4 59.9
Heavy Trucks:	-	1.5	60.0		51.0		52.2	-	60.6		60.7
Vehicle Noise:		8.7	67.0		63.8		59.1		67.7		68.1
Centerline Distance					00.0		55.		07.1		00.1
Contonine Distant	.c 10 110136 0	ontour (III le		70	dBA	65	dBA		60 dBA		i5 dBA
			Ldn:		70		51	· ·	324		699
			CNEL:		75	10	62		348		750

	FHW	A-RD-77-108	HIGH	WAY	NOISE P	REDICTI	ON MO	DEL			
Road Nam	io: Year 2016 W e: San Joaquin nt: East of Jamb	Hills	t				Name: umber:		С		
	SPECIFIC INF	PUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 20	0,300 vehicles	8					Autos:	15		
	Percentage:	10%				edium Tru		/	15		
Peak H	our Volume: 2	2,030 vehicles	3		He	eavy Truc	cks (3+ A	Axles):	15		
Ve	hicle Speed:	45 mph			Vehicle	Mix					
Near/Far Lai	ne Distance:	76 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
Rai	rier Height:	0.0 feet			М	edium Tr	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0				Heavy Tr	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis		100.0 feet			Noise S	ourco El	lovation	c (in fo	not)		
Centerline Dist.	to Observer:	100.0 feet			Noise 3	Auto:		000	ei)		
Barrier Distance	to Observer:	0.0 feet			A de elle	Autos m Trucks		000			
Observer Height (	Above Pad):	5.0 feet						000	Grade Ad	iustmont	. 0.0
Pa	ad Elevation:	0.0 feet			Heat	y Trucks	S. 8.	006	Grade Auj	usunen	0.0
Ros	ad Elevation:	0.0 feet			Lane Eq	uivalent	Distan	ce (in t	feet)		
F	Road Grade:	0.0%				Autos	s: 92.	547			
	Left View:	-90.0 degree	es		Mediu	m Trucks	s: 92.	504			
	Right View:	90.0 degree	es		Hear	y Trucks	s: 92.	547			
FHWA Noise Mode	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresr	nel	Barrier Att	en Ber	m Atten
Autos:	68.46	1.12		-4.	11	-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45	-16.11		-4.	11	-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-20.07		-4.	11	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (witho	ut Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hour			Leq I	Evening	,	Night		Ldn		VEL
Autos:	64.3		62.4		60.6		54.6		63.2	-	63.8
Medium Trucks:	58.0		56.5		50.2		48.6		57.1		57.3
Heavy Trucks: Vehicle Noise:	58.9 66.1		57.4 64.4		48.4 61.2		49.7 56.5		58.0 65.1		58.1 65.5
					61.2		50.5	)	65.1		65.5
Centerline Distance	ce to Noise Cor	ntour (in feet,	)	70	dBA	65	dBA		60 dBA	55	dBA
			l dn:		47		0 <i>DA</i>		218		70
			VFI:		47 50		09		234		04
		Ci	VLL.		00	- 10	00		204	-	0-1

F	HWA-RD-77-108	B HIGHWA	/ NOISE PR	REDICT	ION MODEL		
Scenario: Year 20' Road Name: San Joa Road Segment: West of	quin Hills	ct		.,	Name: NNCF lumber: 8211	C	
SITE SPECIFIC	INPUT DATA				NOISE MODE		
Highway Data			Site Con	ditions	(Hard = 10, S	oft = 15)	
Average Daily Traffic (Adt)	5,000 vehicle	es			Autos	: 15	
Peak Hour Percentage					ucks (2 Axles)		
Peak Hour Volume		es	Hea	avy Tru	cks (3+ Axles)	: 15	
Vehicle Speed			Vehicle I	Лix			
Near/Far Lane Distance	76 feet		Vehi	cleType	e Day	Evening 1	light Daily
Site Data					Autos: 77.5%	6 12.9%	9.6% 97.42%
Barrier Height	: 0.0 feet		Me	edium T	rucks: 84.89	4.9%	10.3% 1.84%
Barrier Type (0-Wall, 1-Berm)	0.0		H	leavy T	rucks: 86.59	6 2.7%	10.8% 0.74%
Centerline Dist. to Barrier	100.0 feet		Noise So	urce E	levations (in	feet)	
Centerline Dist. to Observer				Auto	-	,	
Barrier Distance to Observer			Mediun	n Truck	s: 4.000		
Observer Height (Above Pad)			Heav	y Truck	s: 8.006	Grade Adjus	stment: 0.0
Pad Elevation Road Elevation			I one Fee	iivalan	t Distance (in	footl	
Road Elevation Road Grade			Lane Ly	Auto		ieel)	
I eft View		200	Mediur	n Truck			
Right View	9			y Truck			
FHWA Noise Model Calculati	ons						
VehicleType REMEL	Traffic Flow	Distance	e Finite	Road	Fresnel	Barrier Atten	Berm Atten
Autos: 68.	46 -4.96	-4	l.11	-1.20	-4.87	0.000	0.000
Medium Trucks: 79.			1.11	-1.20	-4.97		
Heavy Trucks: 84.:			1.11	-1.20	-5.16	0.000	0.000
Unmitigated Noise Levels (w					Night	Ldn	CNEL
VehicleType Leq Peak F Autos:	four Leq Da 58.2	56.3	Evening 54.5	Leq	48.5	57.1	57.7
	56.2 51.9	50.4	44.1		40.5	51.0	51.7
	52.8	51.4	42.3		43.6	51.0	52.1
· · · · · · · · · · · · · · · · · · ·	60.0	58.3	55.1		50.4	59.0	59.4
Centerline Distance to Noise	Contour (in fee	t)					
		7	'0 dBA	65	dBA	60 dBA	55 dBA
		Ldn:	18		40	86	185
	C	NEL:	20	4	43	92	198

Tuesday, May 29, 2012

	FHV	WA-RD-77-108	HIGHWAY	NOISE P	REDICTIO	N MODE	L	
Road Nam	io: Year 2016 ne: San Joaqui nt: West of Sa				, , , , ,	lame: NN mber: 82		
								_
Highway Data	SPECIFIC IN	IPULDATA		Cito Con			DEL INPUT	S
• •	(A.11)			Site Coi	iuiuons (i			
,		23,700 vehicles					tos: 15	
	Percentage:	10%			edium Truc		,	
	lour Volume:	2,370 vehicles		HE	eavy Truck	is (3+ AXII	es): 15	
	hicle Speed:	45 mph		Vehicle	Mix			
Near/Far La	ne Distance:	76 feet		Veh	icleType	De	y Evening	Night Daily
Site Data					Aı	ıtos: 77	.5% 12.9%	9.6% 97.429
Ba	rrier Height:	0.0 feet		M	ledium Tru	cks: 84	.8% 4.9%	10.3% 1.849
Barrier Type (0-W	'all, 1-Berm):	0.0			Heavy Tru	cks: 86	.5% 2.7%	10.8% 0.749
Centerline Di	st. to Barrier:	100.0 feet		Noise S	ource Ele	vations (	in foot)	
Centerline Dist.	to Observer:	100.0 feet		740/30 0	Autos:			
Barrier Distance	to Observer:	0.0 feet		Modiu	m Trucks:			
Observer Height (	'Above Pad):	5.0 feet			vy Trucks:			djustment: 0.0
Pa	ad Elevation:	0.0 feet			-			,
Roa	ad Elevation:	0.0 feet		Lane Eq	uivalent l	Distance	(in feet)	
	Road Grade:	0.0%			Autos:	92.54	7	
	Left View:	-90.0 degree	S	Mediu	m Trucks:			
	Right View:	90.0 degree	S	Hea	vy Trucks:	92.54	7	
FHWA Noise Mod				1				
VehicleType	REMEL	Traffic Flow	Distance		Road	Fresnel	Barrier At	
Autos:	68.46	1.80		.11	-1.20			0.00
Medium Trucks:	79.45	-15.44		.11	-1.20			0.00
Heavy Trucks:	84.25	-19.40		.11	-1.20	-5.	16 0.	000 0.00
Unmitigated Noise VehicleType	e <b>Levels (with</b> Leg Peak Hou	-		enuation) Evening	Leg N	light	Ldn	CNEL
Autos:	64 64		3.0	61.3		55.2	63.	
Medium Trucks:	58		7.2	50.8		49.3	57.	
Heavy Trucks:	59		8.1	49.1		50.3	58.	
Vehicle Noise:	66		55.0	61.9		57.2	65.	
Centerline Distan	ce to Noise Co	ontour (in feet)						
			7	0 dBA	65 d	BA	60 dBA	55 dBA
		L	dn:	52	112	2	242	521
		CN	IEL:	56	120	)	259	559

F	IWA-RD-77-108	HIGH	WAY N	OISE P	REDICT	ION MC	DDEL			
Scenario: Year 2010 Road Name: San Joaq Road Segment: East of S	uin Hills	ot				t Name: lumber:		С		
SITE SPECIFIC I	NPUT DATA				1	NOISE	MODE	L INPUT	S	
Highway Data			S	Site Cor	nditions	(Hard =	= 10, Sc	oft = 15)		
Average Daily Traffic (Adt):	14,900 vehicle	es					Autos:	15		
Peak Hour Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak Hour Volume:	1,490 vehicle	es		He	eavy Tru	cks (3+	Axles):	15		
Vehicle Speed:	45 mph		1	/ehicle	Mix					
Near/Far Lane Distance:	76 feet			Ver	icleType	9	Day	Evening	Night	Daily
Site Data						Autos:	77.5%	12.9%	9.6%	97.42%
Barrier Height:	0.0 feet			M	edium T	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet			loise S	ource E	levatio	ns (in fe	eet)		
Centerline Dist. to Observer:	100.0 feet		F	10,000	Auto		.000	,01,		
Barrier Distance to Observer:	0.0 feet			Mediu	m Truck		.000			
Observer Height (Above Pad):	5.0 feet				vy Truck		.006	Grade Ad	iustmen	t: 0.0
Pad Elevation:	0.0 feet		-		•					
Road Elevation:	0.0 feet		L	ane Eq	uivalen			feet)		
Road Grade:	0.0%				Auto		.547			
Left View:	-90.0 degre				m Truck		.504			
Right View:	90.0 degre	es		Hea	y Truck	s: 92	.547			
FHWA Noise Model Calculation	ns									
VehicleType REMEL	Traffic Flow		stance		Road	Fres		Barrier Att	en Be	rm Atten
Autos: 68.4			-4.11		-1.20		-4.87		000	0.000
Medium Trucks: 79.4			-4.11		-1.20		-4.97		000	0.000
Heavy Trucks: 84.2	5 -21.41		-4.11		-1.20		-5.16	0.0	000	0.000
Unmitigated Noise Levels (with		_							1	
VehicleType Leq Peak H		_	Leq Ev		,	Night		Ldn		NEL
	2.9	61.0		59.3		53.	_	61.8	-	62.4
	6.7	55.2		48.8		47.	-	55.		56.0
	7.5	56.1 63.0		47.1 59.9		48. 55.		56.1 63.1		56.8 64.2
				59.9		35.	_	03.	'	04.2
Centerline Distance to Noise	Jontour (In ree	<i>y</i>	70 d	IRΔ	65	dBA	- 6	i0 dBA	56	dBA
		Ldn:	38			32		177		382

	FHWA	4-RD-77-108	HIGI	HWAY	NOISE P	REDICT	ON MO	DEL			
Scenario: Year 2 Road Name: San J Road Segment: East o	paquin	Hills	t				Name: umber:		С		
SITE SPECIFI	C INP	UT DATA							L INPUTS	3	
Highway Data					Site Cor	nditions	(Hard =	10, Sc	oft = 15)		
Average Daily Traffic (A	tt): 22	,800 vehicles	S					Autos:	15		
Peak Hour Percenta	ge:	10%				edium Tru		/	15		
Peak Hour Volur	ne: 2	,280 vehicles	3		He	eavy Truc	cks (3+ A	Axles):	15		
Vehicle Spe	ed:	45 mph			Vehicle	Mix					
Near/Far Lane Distan	ce:	76 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
Barrier Heig	ht-	0.0 feet			М	edium Ti	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Ber		0.0				Heavy Ti	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barr	,	100.0 feet			Noise S	ouroo El	lovestion	o (in fe	2041		
Centerline Dist. to Observ	er:	100.0 feet			Noise 3	Auto:		000	et)		
Barrier Distance to Observ	er:	0.0 feet			A de elle	Auto: m Truck:		000			
Observer Height (Above Pa	d):	5.0 feet				vy Truck		000	Grade Adj	iietmant	. 0.0
Pad Elevati	on:	0.0 feet			пеа	y Truck	s. o.	006	Orace Au	ustmon	. 0.0
Road Elevati	on:	0.0 feet			Lane Eq	uivalen	Distan	ce (in t	feet)		
Road Gra	de:	0.0%				Auto	s: 92.	547			
Left Vi	ew:	-90.0 degree	es			m Truck		504			
Right Vi	ew:	90.0 degree	es		Hear	y Truck	s: 92.	547			
FHWA Noise Model Calcula	ations										
VehicleType REME	L 7	Traffic Flow	Dis	stance	Finite	Road	Fresr	nel	Barrier Atte	en Ber	m Atten
	8.46	1.63		-4.		-1.20		-4.87	0.0		0.000
	9.45	-15.61		-4.		-1.20		-4.97	0.0		0.000
Heavy Trucks: 8	4.25	-19.57		-4.	11	-1.20		-5.16	0.0	100	0.000
Unmitigated Noise Levels	withou	ıt Topo and	barri	er atte	nuation)					,	
VehicleType Leq Pear		Leq Day		Leq I	Evening	,	Night		Ldn		NEL
Autos:	64.8		62.9		61.1		55.1		63.7		64.3
Medium Trucks:	58.5		57.0		50.7		49.1		57.6		57.8
Heavy Trucks: Vehicle Noise:	59.4 66.6		58.0 64.9		48.9 61.7		50.2 57.0		58.5 65.6		58.6 66.0
Centerline Distance to Noi					01.7		57.0		05.0	•	00.0
Cemeriine Distance to Noi	e con	tour (III reet,		70	dBA	65	dBA	6	60 dBA	55	dBA
			Ldn:		51	10	09	-	236	5	607
		-	VFI:		54		17		253		44

FHWA-RD-77-10	HIGHWAY N	OISE PREDICTION MODEL	
Scenario: Year 2016 Without Proje Road Name: San Joaquin Hills Road Segment: West of Santa Rosa	ct	Project Name: NNCPC Job Number: 8211	
SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		Site Conditions (Hard = 10, Soft = 15)	
Average Daily Traffic (Adt): 17,200 vehicl	es	Autos: 15	
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15	
Peak Hour Volume: 1,720 vehicl	es	Heavy Trucks (3+ Axles): 15	
Vehicle Speed: 45 mph		Vehicle Mix	
Near/Far Lane Distance: 76 feet		VehicleType Day Evening Nig.	ht Daily
Site Data		Autos: 77.5% 12.9% 9.	6% 97.42%
Barrier Height: 0.0 feet		Medium Trucks: 84.8% 4.9% 10.	.3% 1.84%
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks: 86.5% 2.7% 10.	.8% 0.74%
Centerline Dist. to Barrier: 100.0 feet	-	Noise Source Elevations (in feet)	
Centerline Dist. to Observer: 100.0 feet		Autos: 2,000	
Barrier Distance to Observer: 0.0 feet		Medium Trucks: 4.000	
Observer Height (Above Pad): 5.0 feet		Heavy Trucks: 8.006 Grade Adjustm	nent: 0.0
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)	
Road Elevation: 0.0 feet Road Grade: 0.0%	-	Autos: 92.547	
Left View: -90.0 degr		Medium Trucks: 92.504	
Right View: 90.0 degre		Heavy Trucks: 92.547	
FHWA Noise Model Calculations			
VehicleType REMEL Traffic Flow	Distance	Finite Road Fresnel Barrier Atten	Berm Atten
Autos: 68.46 0.40	-4.1	1 -1.20 -4.87 0.000	0.000
Medium Trucks: 79.45 -16.83	-4.1	1 -1.20 -4.97 0.000	0.000
Heavy Trucks: 84.25 -20.79			0.000
Unmitigated Noise Levels (without Topo and			ONE
VehicleType   Leq Peak Hour   Leq Da Autos: 63.6	y Leg E 61.7	vening Leq Night Ldn 59.9 53.8 62.5	CNEL 63.1
Medium Trucks: 57.3	55.8	59.9 53.8 62.5 49.4 47.9 56.4	56.6
Heavy Trucks: 58.1	56.7	47.7 48.9 57.3	57.4
Vehicle Noise: 65.4	63.6	60.5 55.8 64.4	64.8
Centerline Distance to Noise Contour (in fee	t)		
,	70	IBA 65 dBA 60 dBA	55 dBA
	Ldn: 4	2 91 195	421
	NEL: 4	5 97 209	451

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	FHV	VA-RD-77-108	HIGHWA	Y NOISE PI	REDICTION	ON MO	DEL			
Scenario: `	/ear 2016 \	Without Project		Project Name: NNCPC						
Road Name: \$	San Joaqui	n Hills			Job Nu	mber:	8211			
Road Segment: \	Nest of Ma	carthur								
	CIFIC IN	PUT DATA						L INPUT	S	
Highway Data				Site Con	ditions (	Hard =	10, S	oft = 15)		
Average Daily Trai	fic (Adt): 2	23,500 vehicles					Autos:	15		
Peak Hour Per	centage:	10%		Me	dium Tru	cks (2 /	4xles):	15		
Peak Hour	Volume:	2,350 vehicles		He	avy Truci	ks (3+ /	4xles):	15		
Vehicle	e Speed:	45 mph		Vehicle	Mix					
Near/Far Lane I	Distance:	76 feet			icleType		Day	Evening	Night	Daily
Site Data					A	utos:	77.5%		9.6%	97.42%
Rarrie	Heiaht:	0.0 feet		M	edium Tru	ıcks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall,		0.0		1	Heavy Tru	icks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to	Barrier:	100.0 feet		Noise So	ource Ele	vation	s (in f	eet)		
Centerline Dist. to C	bserver:	100.0 feet		110,00 01	Autos		000	001)		
Barrier Distance to C	bserver:	0.0 feet		Modius	m Trucks		000			
Observer Height (Abo	ve Pad):	5.0 feet			v Trucks		006	Grade Ad	iustment	0.0
Pad E	levation:	0.0 feet								
Road E	levation:	0.0 feet		Lane Eq	uivalent	Distan	ce (in	feet)		
Roa	d Grade:	0.0%			Autos		547			
L	eft View:	-90.0 degree	S		m Trucks		504			
Rig	ght View:	90.0 degree	s	Heav	y Trucks	92.	547			
FHWA Noise Model C	alculations	s		-						
VehicleType F	REMEL	Traffic Flow	Distanc		Road	Fresi	nel	Barrier Att	en Ber	m Atten
Autos:	68.46	1.76		4.11	-1.20		-4.87		000	0.000
Medium Trucks:	79.45	-15.48		4.11	-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-19.43	-4	4.11	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise Le	•		oarrier at	tenuation)						
	p Peak Hou			Evening	Leq N	_		Ldn		VEL
Autos:	64.		3.0	61.2		55.2	_	63.8	-	64.4
Medium Trucks:	58.		7.2	50.8		49.2		57.7		57.9
Heavy Trucks:	59.		8.1	49.0		50.3		58.7		58.8
Vehicle Noise:	66	.7 6	55.0	61.8		57.2	2	65.7	7	66.2
Centerline Distance to	Noise Co	ontour (in feet)								
				70 dBA	65 d		- (	60 dBA		dBA
			.dn: IFI :	52 56	11 12			240 258		18 55

	FH\	WA-RD-77-108	HIGHV	NAY N	IOISE PR	EDICT	ION MO	DDEL			
	e: San Joaqu					Project Job N	Name: lumber:		C		
	SPECIFIC IN	NPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	21,300 vehicles	3					Autos.	15		
Peak Hour	Percentage:	10%			Med	dium Tr	ucks (2	Axles).	15		
Peak H	our Volume:	2,130 vehicles	3		Hea	avy Tru	cks (3+	Axles).	15		
Vei	hicle Speed:	45 mph		F	Vehicle I	/lix					
Near/Far Lar	ne Distance:	76 feet				cleType	,	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	6 12.9%	9.69	% 97.42%
Rai	rier Height:	0.0 feet			Me	dium T	rucks:	84.8%	4.9%	10.39	% 1.84%
Barrier Type (0-W		0.0			H	leavy T	rucks:	86.5%	6 2.7%	10.89	% 0.74%
Centerline Dis	st. to Barrier:	100.0 feet		- H	Noise So	urco F	lovatio	ne (in f	inat)		
Centerline Dist.	to Observer:	100.0 feet		· F	140/36 00	Auto		2.000	<i>cci)</i>		
Barrier Distance	to Observer:	0.0 feet			Madiur	n Truck		1.000			
Observer Height (.	Above Pad):	5.0 feet				y Truck		3.006	Grade Ad	liustmei	nt: 0.0
	ad Elevation:	0.0 feet								,	
	ad Elevation:	0.0 feet		4	Lane Equ				feet)		
F	Road Grade:	0.0%				Auto		2.547			
	Left View:	-90.0 degree				n Truck		2.504			
	Right View:	90.0 degree	es		Heav	y Truck	s: 92	2.547			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite		Fres		Barrier At		erm Atten
Autos:	68.46			-4.1		-1.20		-4.87		000	0.000
Medium Trucks:	79.45			-4.1		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-19.86		-4.1	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise											
,,	Leq Peak Hot	. , . ,		Leq E	vening	Leq	Night		Ldn		CNEL
Autos:	64		62.6		60.8		54		63.		64.0
Medium Trucks:			56.7		50.4		48		57.	-	57.5
Heavy Trucks:	59		57.7		48.6		49		58.		58.4
Vehicle Noise:			64.6		61.4		56	.7	65.	3	65.7
Centerline Distance	ce to Noise Co	ontour (in feet,	)							1	
			L		dBA		dBA		60 dBA	5	5 dBA
			Ldn:		8		04		225		485
		CI	IEL:	5	2	1	12		241		520

	FH\	WA-RD-77-108	HIGH	-IWAY I	NOISE P	REDICT	ION MO	DEL			
	e: San Cleme		t				Name: umber:		С		
SITE S	SPECIFIC IN	IPUT DATA				Ν	IOISE I	MODE	L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	: 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	5,800 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tru	icks (2	Axles):	15		
Peak H	our Volume:	580 vehicle	S		He	eavy Truc	cks (3+ )	Axles):	15		
Vel	hicle Speed:	40 mph		1	Vehicle	Miv					
Near/Far Lar	ne Distance:	36 feet		F		icleType		Dav	Evening	Night	Daily
Site Data							Autos:	77.5%	v	9.6%	
Dar	rier Height:	0.0 feet			M	ledium Ti	rucks:	84.8%	4.9%	10.3%	
Barrier Type (0-W		0.0				Heavy Ti	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	st. to Barrier:	100.0 feet		ŀ	Noise S	ourco El	lovation	e (in f	not)		
Centerline Dist.	to Observer:	100.0 feet		-	NOISE 3	Auto:		000	eei)		
Barrier Distance	to Observer:	0.0 feet			Modis	m Truck:		000			
Observer Height (A	Above Pad):	5.0 feet				vy Truck		000	Grade Ad	iustmen	t· 0.0
Pa	ad Elevation:	0.0 feet			i ica	vy Truck	s. o.	000	Orado ria	uoumom	0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)		
F	Road Grade:	0.0%				Auto	s: 98.	412			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 98.	.372			
	Right View:	90.0 degre	es		Hea	vy Truck	s: 98.	413			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresi	nel	Barrier Att	en Be	rm Atten
Autos:	66.51	-3.81		-4.5	51	-1.20		-4.87	0.0	000	0.00
Medium Trucks:	77.72	-21.04		-4.5		-1.20		-4.97		000	0.000
Heavy Trucks:	82.99	-25.00		-4.5	51	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	Levels (with	out Topo and	barri	er atte	nuation)						
,,	Leq Peak Hou	.,.,		Leq E	vening		Night		Ldn		NEL
Autos:	57		55.1		53.3		47.3	-	55.9	-	56.5
Medium Trucks:	51		49.5		43.1		41.	-	50.0	-	50.2
Heavy Trucks:	52		50.9		41.8		43.		51.4		51.6
Vehicle Noise:	59		57.3		54.0	1	49.4	4	58.0	)	58.4
Centerline Distanc	e to Noise Co	ontour (in feet	:)	70	-10.4		-ID 4		20 -104	1	-104
			Later		dBA		dBA		60 dBA		dBA
		_	Ldn: NFI:		16 17		14 16		73 78		158 169
		C.	IVEL:		1	3	Ю		10		109

FH	WA-RD-77-108	HIGHWA	Y NOISE F	REDICTION	ON MOI	DEL			
Scenario: Year 2016 Road Name: San Clemo Road Segment: East of Sa	ente	!		Project I Job Nu	Vame: 1 Imber: 8		0		
SITE SPECIFIC II	NPUT DATA			N	DISE N	10DE	L INPUT	S	
Highway Data			Site Co	nditions (	Hard =	10, Sc	ft = 15)		
Average Daily Traffic (Adt):	5,600 vehicles	3			-	Autos:	15		
Peak Hour Percentage:	10%		М	edium Tru	cks (2 A	xles):	15		
Peak Hour Volume:	560 vehicles	3	Н	eavy Truci	ks (3+ A	xles):	15		
Vehicle Speed:	40 mph		Vehicle	Miss					
Near/Far Lane Distance:	36 feet			hicleType	- T.	Dav	Evening	Night	Daily
Site Data					utos:	77.5%		9.6%	
Barrier Height:	0.0 feet		٨	1edium Tru	icks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0			Heavy Tru	icks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet		Noise S	ource Ele	vations	s (in fe	eet)		
Centerline Dist. to Observer:	100.0 feet			Autos.	2.0	000			
Barrier Distance to Observer:	0.0 feet		Media	ım Trucks	: 4.0	000			
Observer Height (Above Pad):	5.0 feet		Hea	vy Trucks	8.0	006	Grade Ad	justment	: 0.0
Pad Elevation:	0.0 feet			·					
Road Elevation:	0.0 feet		Lane E	quivalent			eet)		
Road Grade:	0.0%			Autos					
Left View:	-90.0 degree			ım Trucks					
Right View:	90.0 degree	es	Hea	vy Trucks	98.4	113			
FHWA Noise Model Calculation									
VehicleType REMEL	Traffic Flow	Distant		e Road	Fresn	_	Barrier Att	en Ber	m Atten
Autos: 66.51			4.51	-1.20		-4.87		000	0.000
Medium Trucks: 77.72			4.51	-1.20		-4.97		000	0.000
Heavy Trucks: 82.99	-25.15	-	4.51	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise Levels (with								1	
VehicleType Leq Peak Ho			q Evening	Leq N	_		Ldn		NEL
		54.9	53.2	-	47.1		55.7		56.3
		49.3	42.9		41.4		49.9		50.1
		50.7 57.1	41.7 53.8		42.9 49.3		51.3 57.8		51.4 58.3
Centerline Distance to Noise C							****		
	(111 1001)		70 dBA	65 d	BA	6	0 dBA	55	dBA
		Ldn:	15	33			72	1	54
		VEL:	17	36			77		65

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	FHV	WA-RD-77-108	HIGH	-IWAY	NOISE PI	REDICTION	ON M	ODEL				
Road Nam	io: Year 2016 e: Santa Barb nt: West of Jar	ara	ct			Project I Job Nu			°C			
SITE :	SPECIFIC IN	IPUT DATA				N	OISE	MODE	L INPUT	S		
Highway Data					Site Cor	ditions (	Hard	= 10, S	oft = 15)			
Average Daily	Traffic (Adt):	2,300 vehicle	es					Autos	: 15			
,	Percentage:	10%			Me	dium Tru	cks (2	Axles)	15			
Peak H	lour Volume:	230 vehicle	es		He	avy Truc	ks (3+	Axles)	15			
Ve	hicle Speed:	40 mph		-								
Near/Far Lai		36 feet			Vehicle				1 1			
					Veh	icleType		Day	Evening	Night	Daily	
Site Data							utos:	77.59		9.6%		
	rrier Height:	0.0 feet				edium Tru		84.89		10.3%		
Barrier Type (0-W		0.0			,	Heavy Tru	JCKS:	86.5%	6 2.7%	10.8%	0.74%	
Centerline Dis		100.0 feet		-	Noise S	ource Ele	evatio	ns (in t	eet)			
Centerline Dist.		100.0 feet		ľ		Autos	: 2	2.000				
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks		1.000				
Observer Height (	,	5.0 feet			Heav	vy Trucks	: 8	3.006	Grade Ad	justment	: 0.0	
	ad Elevation:	0.0 feet		ļ								
	ad Elevation:	0.0 feet		ļ	Lane Eq	uivalent			feet)			
I	Road Grade:	0.0%				Autos		3.412				
	Left View:	-90.0 degre	es		Mediu	m Trucks		3.372				
	Right View:	90.0 degre	es		Heav	y Trucks	: 98	3.413				
FHWA Noise Mode												
VehicleType	REMEL	Traffic Flow		stance		Road	Fres	snel	Barrier Att		m Atten	
Autos:	66.51	-7.82		-4.5		-1.20		-4.87		000	0.000	
Medium Trucks:	77.72			-4.5		-1.20		-4.97		000	0.000	
Heavy Trucks:	82.99	-29.02		-4.5	1	-1.20		-5.16	0.0	000	0.000	
Unmitigated Noise												
VehicleType	Leq Peak Hou		_	Leq E	vening	Leq N	_	<u> </u>	Ldn		NEL	
Autos:	53		51.1		49.3		43		51.	-	52.5	
Medium Trucks:	46		45.4		39.1		37		46.0		46.2	
Heavy Trucks:	48		46.8		37.8		39	• •	47.4		47.5	
Vehicle Noise:	55		53.3		50.0		45	.4	54.	0	54.4	
Centerline Distanc	ce to Noise Co	ontour (in fee	t)	70	dBA	65 c	ID A		60 dBA		dBA	
			I dn:		<i>ава</i> 9	65.0			60 aBA 40			
		_	Lan:		9		-		40 42		85 91	
		C	IVEL:		9	20	J		42		91	

Tuesday, May 29, 2012

	FHW	A-RD-77-108	HIGH	I YAWI	NOISE PE	REDICTION	OM MO	DEL			
Road Nam	io: Year 2016 V e: Santa Barba nt: East of Jami	ra	t			Project I Job Nu	Vame: imber:		С		
SITE	SPECIFIC INF	PUT DATA				N	OISE N	ИODE	L INPUT	S	
Highway Data					Site Con	ditions (	Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt): 1:	2,800 vehicle	S					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	cks (2 /	Axles):	15		
Peak H	our Volume:	1,280 vehicle	S		He	avy Truc	ks (3+ /	Axles):	15		
Ve	hicle Speed:	40 mph		ŀ	Vehicle i	Wix					
Near/Far La	ne Distance:	36 feet		İ	Veh	icleType		Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	12.9%	9.6%	97.42%
Rai	rier Height:	0.0 feet			Me	edium Tru	ıcks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0			F	leavy Tro	ıcks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis		100.0 feet			Noise So	ource Ele	evation	s (in f	eet)		
Centerline Dist.		100.0 feet				Autos		000	,		
Barrier Distance	to Observer:	0.0 feet			Mediui	n Trucks	: 4.0	000			
Observer Height (	,	5.0 feet			Heav	y Trucks	: 8.	006	Grade Ad	iustmeni	: 0.0
	ad Elevation:	0.0 feet		L							
	ad Elevation:	0.0 feet		-	Lane Eq				feet)		
ı	Road Grade:	0.0%				Autos		412			
	Left View:	-90.0 degree				n Trucks		372			
	Right View:	90.0 degree	es		Heav	y Trucks	: 98.	413			
FHWA Noise Mode	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresr	nel	Barrier Att	en Be	rm Atten
Autos:	66.51	-0.37		-4.5	1	-1.20		-4.87	0.0	000	0.000
Medium Trucks:	77.72	-17.61		-4.5	1	-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	82.99	-21.56		-4.5	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (witho	ut Topo and	barrie	er atter	nuation)						
VehicleType	Leq Peak Hour	.,.,	_	Leq E	vening	Leq N			Ldn		NEL
Autos:	60.4	-	58.5		56.8		50.7		59.3		59.9
Medium Trucks:	54.4		52.9		46.5		45.0		53.4		53.7
Heavy Trucks: Vehicle Noise:	55.7		54.3 60.7		45.3 57.4		46.5 52.9		54.9 61.4		55.0 61.9
Centerline Distant		•			31.4		52.8	,	01.4		01.9
Centerline Distanc	e to Noise Col	nour (in reet	, T	70	dBA	65 a	IBA		60 dBA	55	i dBA
			Ldn:	2	27	58	3	-	124	- 2	268
		CI	VEL:	2	29	62	2		133	2	287

	FHW	/A-RD-77-108	HIGHW.	AY NOISE	PREDICT	ION MC	DEL			
Road Nam	io: Year 2016 V ne: Santa Barba nt: South of Sa	ara	t			Name: lumber:		С		
SITE	SPECIFIC IN	PUT DATA						L INPUT	S	
Highway Data				Site Co	onditions	(Hard =	: 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	7,900 vehicle	S				Autos:	15		
Peak Hour	Percentage:	10%		٨	1edium Tı	ucks (2	Axles):	15		
Peak H	lour Volume:	790 vehicle	S	F	leavy Tru	cks (3+.	Axles):	15		
Ve	hicle Speed:	40 mph		Vehicle	a Miv					
Near/Far La	ne Distance:	36 feet			ehicleType	9	Dav	Evening	Night	Daily
Site Data						Autos:	77.5%	Ü	9.6%	
Rai	rrier Height:	0.0 feet			Medium 7	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0			Heavy 7	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis		100.0 feet		Maine	Source E	lovotion	o (in f	2041		
Centerline Dist.	to Observer:	100.0 feet		Noise			•	ei)		
Barrier Distance	to Observer:	0.0 feet			Auto		.000			
Observer Height (	Above Pad):	5.0 feet			um Truck		000	Grade Ad	iuctmont	. 0.0
Pa	ad Elevation:	0.0 feet		не	avy Truck	S: 8.	000	Grade Au,	usimeni	. 0.0
Ros	ad Elevation:	0.0 feet		Lane E	quivalen	t Distan	ce (in i	feet)		
1	Road Grade:	0.0%			Auto	s: 98	.412			
	Left View:	-90.0 degree	es	Med	ium Truck	s: 98	.372			
	Right View:	90.0 degree	es	He	avy Truck	s: 98	.413			
FHWA Noise Mode	el Calculations	;								
VehicleType	REMEL	Traffic Flow	Distar	ice Fini	te Road	Fresi	nel	Barrier Att	en Ber	m Atten
Autos:	66.51	-2.46		-4.51	-1.20		-4.87	0.0	000	0.000
Medium Trucks:	77.72	-19.70		-4.51	-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	82.99	-23.66		-4.51	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (witho	out Topo and	barrier a	ttenuation	)					
VehicleType	Leq Peak Hou	r Leq Day	' Le	eq Evening	Leq	Night		Ldn	C	NEL
Autos:	58.	-	56.4	54		48.	-	57.2	-	57.8
Medium Trucks:	52.		50.8	44		42.	-	51.3	-	51.6
Heavy Trucks:	53.		52.2	43.		44.		52.8		52.9
Vehicle Noise:	60.	3	58.6	55	3	50.	8	59.3	3	59.8
Centerline Distant	ce to Noise Co	ntour (in feet	)	70 104		10.4				10.4
				70 dBA		dBA	6	60 dBA		dBA
			Ldn:	19		42		90		94
		CI	VEL:	21		45		96	2	808

	FH	WA-RD-77-108	HIGHV	VAY NO	ISE PI	REDICTIO	N MOE	EL			
	e: Santa Bart		et			Project N Job Nur			0		
SITE S	SPECIFIC II	NPUT DATA				NO	ISE N	IODE	L INPUT:	S	
Highway Data				S	ite Con	ditions (H	lard =	10, Sc	ft = 15)		
Average Daily	Traffic (Adt):	12,600 vehicle	s				A	lutos:	15		
Peak Hour	Percentage:	10%			Me	dium Truc	ks (2 A	xles):	15		
Peak H	our Volume:	1,260 vehicle	s		He	avy Truck	s (3+ A	xles):	15		
Vei	hicle Speed:	40 mph		1/	ehicle	Miss					
Near/Far Lar	ne Distance:	36 feet		V		icleType		Dav	Evening	Night	Dailv
Site Data					VCII			77.5%		9.6%	. ,
					1.4	edium Truc		34.8%		10.3%	
	rier Height:	0.0 feet				Heavy Truc		36.5%		10.3%	
Barrier Type (0-W	. ,	0.0				icavy iru	una. C	30.3 /6	2.1 /0	10.076	0.747
Centerline Dist		100.0 feet		N	oise S	ource Elev	/ations	(in fe	et)		
		100.0 feet				Autos:	2.0	00			
Barrier Distance		0.0 feet			Mediu	m Trucks:	4.0	00			
Observer Height (	Above Paa): ad Flevation:	5.0 feet 0.0 feet			Heav	y Trucks:	8.0	06	Grade Adj	iustment	0.0
	ad Elevation:	0.0 feet		-	ano Ea	uivalent D	Dictoro	o (in t	(not)		
	Road Grade:	0.0 reet		-	ane Ly	Autos:	98.4		eet)		
,	l eft View:	-90.0 degre			Modius	m Trucks:	98.3				
	Right View:	90.0 degre				y Trucks:	98.4				
FHWA Noise Mode	el Calculation	15									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresne	el	Barrier Att	en Ber	rm Atten
Autos:	66.51	-0.44		-4.51		-1.20		4.87	0.0	000	0.000
Medium Trucks:	77.72	-17.67		-4.51		-1.20		4.97	0.0	000	0.000
Heavy Trucks:	82.99	-21.63		-4.51		-1.20		5.16	0.0	000	0.000
Unmitigated Noise											
, , , .	Leq Peak Ho			Leq Eve	-	Leq Ni	•		Ldn		NEL
Autos:	-	0.4	58.5		56.7		50.6		59.3		59.9
Medium Trucks:	-	4.3	52.8		46.5		44.9		53.4		53.6
Heavy Trucks:		5.6	54.2		45.2		46.4		54.8		54.9
Vehicle Noise:		2.4	60.6		57.4		52.8		61.3	3	61.8
Centerline Distance	e to Noise C	ontour (in fee	t)	70 dl	2Δ	65 dF	2Δ	-	i0 dBA	55	dBA
			I dn:	26	<i>/</i> /\	57	<i>/</i> /\	U	123		265
		C	NFI:	28		61			132		284
		Ü		20		01			.02	-	

Tuesday, May 29, 2012

FH	WA-RD-77-108 H	HIGHWAY	NOISE P	REDICTIO	N MODEL	-						
Scenario: Year 2016	Without Project		Project Name: NNCPC									
Road Name: Santa Bart	ara			Job Nu	mber: 821	1						
Road Segment: West of No	ewport CTR											
SITE SPECIFIC II	IPUT DATA					DEL INPUT	S					
Highway Data			Site Con	ditions (i	Hard = 10,	Soft = 15)						
Average Daily Traffic (Adt):	6,900 vehicles				Auto	os: 15						
Peak Hour Percentage:	10%				cks (2 Axle	-,						
Peak Hour Volume:	690 vehicles		He	avy Truck	s (3+ Axle	s): 15						
Vehicle Speed:	40 mph		Vehicle	Mix								
Near/Far Lane Distance:	36 feet			icleType	Day	/ Evening	Night	Daily				
Site Data				AL	itos: 77.		9.6%	97.42%				
Barrier Height:	0.0 feet		M	edium Tru	cks: 84.	8% 4.9%	10.3%	1.84%				
Barrier Type (0-Wall, 1-Berm):	0.0		F	leavy Tru	cks: 86.	5% 2.7%	10.8%	0.74%				
Centerline Dist. to Barrier:	100.0 feet		Noise Sc	ource Fle	vations (ii	n feet)						
Centerline Dist. to Observer:	100.0 feet		710700 01	Autos:		7.1001/						
Barrier Distance to Observer:	0.0 feet		Modius	n Trucks:								
Observer Height (Above Pad):	5.0 feet			v Trucks:		Grade Ad	liuetmant	0.0				
Pad Elevation:	0.0 feet		ricav	y ITUCKS.	0.000	0/440 / 10	juotimom.	0.0				
Road Elevation:	0.0 feet		Lane Eq	uivalent l	Distance (	in feet)						
Road Grade:	0.0%			Autos:	98.412							
Left View:	-90.0 degrees	S	Mediu	n Trucks:	98.372							
Right View:	90.0 degrees	S	Heav	y Trucks:	98.413							
FHWA Noise Model Calculation	s											
VehicleType REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier At	ten Ber	m Atten				
Autos: 66.51	-3.05	-4.	51	-1.20	-4.8	37 0.	000	0.000				
Medium Trucks: 77.72	-20.29	-4.	51	-1.20	-4.9	97 0.	000	0.000				
Heavy Trucks: 82.99	-24.25	-4.	51	-1.20	-5.1	16 0.	000	0.000				
Unmitigated Noise Levels (with	out Topo and b	arrier atte	nuation)									
VehicleType Leq Peak Ho			Evening	Leq N	•	Ldn		VEL				
		5.8	54.1		48.0	56.	-	57.3				
		0.2	43.8		42.3	50.	-	51.0				
,		1.6	42.6		43.8	52.		52.3				
Vehicle Noise: 59	9.8 5	8.0	54.7		50.2	58.	7	59.2				
Centerline Distance to Noise C	ontour (in feet)											
		70	dBA	65 d	BA	60 dBA	55	dBA				
	L CN		18 19	38 41		82 88		77 90				

Tuesday, May 29, 2012

FHW.	A-RD-77-108 F	lighwa'	/ NOISE	PREDICTI	ON MO	DEL			
Scenario: Year 2016 W Road Name: Santa Barbar Road Segment: East of Newp	a			Project Job N	Name: umber:		С		
SITE SPECIFIC INP	UT DATA						L INPUT	S	
Highway Data			Site (	Conditions	(Hard =	10, S	oft = 15)		
Average Daily Traffic (Adt): 3	,700 vehicles					Autos:	15		
Peak Hour Percentage:	10%			Medium Tru	icks (2	4xles):	15		
Peak Hour Volume:	370 vehicles			Heavy Truc	ks (3+ )	4xles):	15		
Vehicle Speed:	40 mph		Vehic	le Mix					
Near/Far Lane Distance:	36 feet			/ehicleType		Day	Evening	Night	Daily
Site Data				-	lutos:	77.5%	12.9%	9.6%	97.42%
Barrier Height:	0.0 feet			Medium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0			Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
	100.0 feet		Noise	Source El	evation	s (in f	eet)		
	100.0 feet			Autos		000	,		
Barrier Distance to Observer:	0.0 feet		Me	dium Trucks	s: 4.	000			
Observer Height (Above Pad):	5.0 feet		l h	eavy Trucks	s: 8.	006	Grade Ad	iustment	: 0.0
Pad Elevation:	0.0 feet			-					
Road Elevation:	0.0 feet		Lane	Equivalent			feet)		
Road Grade:	0.0%			Autos		412			
	-90.0 degrees			dium Trucks		372			
Right View:	90.0 degrees		H	leavy Trucks	s: 98.	413			
FHWA Noise Model Calculations									
VehicleType REMEL 1	raffic Flow	Distanc	e Fi	nite Road	Fresi	nel	Barrier Att	en Bei	rm Atten
Autos: 66.51	-5.76	-4	.51	-1.20		-4.87	0.0	000	0.000
Medium Trucks: 77.72	-23.00	-4	.51	-1.20		-4.97	0.0	000	0.000
Heavy Trucks: 82.99	-26.95	-4	.51	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise Levels (without	ıt Topo and b	arrier att	enuatio						
VehicleType Leq Peak Hour	Leq Day		Evenin	,	Night		Ldn		NEL
Autos: 55.0		3.1	-	1.4	45.3	-	53.9		54.5
Medium Trucks: 49.0		7.5		1.1	39.0		48.1		48.3
Heavy Trucks: 50.3 Vehicle Noise: 57.0		3.9 5.3		9.9 2.0	41.		49.5 56.0		49.6 56.5
		J.J	J	2.0	47.	,	50.0	,	30.3
Centerline Distance to Noise Con	tour (in feet)	7	0 dBA	65	dBA		60 dBA	55	dBA
	L	dn:	12		5		54		117
	CNI		13		7		58	1	125

	FHW	A-RD-77-108	HIGH	WAY	NOISE P	REDICTI	ON MO	DEL			
Road Nam	io: Year 2016 W e: San Miguel nt: East of Newp	,	t				Name: umber:		C		
	SPECIFIC INF	PUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 14	,400 vehicle	s					Autos:	15		
	Percentage:	10%				edium Tru		/	15		
Peak H	our Volume: 1	,440 vehicle	S		He	eavy Truc	cks (3+ )	4xles):	15		
Ve	hicle Speed:	45 mph			Vehicle	Mix					
Near/Far Lai	ne Distance:	52 feet			Veh	icleType		Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
Rai	rier Height:	0.0 feet			М	edium Tr	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0				Heavy Tr	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	. ,	100.0 feet			Noise S	ourco El	lovation	c (in fo	not)		
Centerline Dist.	to Observer:	100.0 feet			Noise 3	Auto:		000	et)		
Barrier Distance	to Observer:	0.0 feet			A de elle	Autos m Trucks		000			
Observer Height (	Above Pad):	5.0 feet				m Trucks vy Trucks		000	Grade Ad	iuctmont	. 0.0
Pa	ad Elevation:	0.0 feet			пеа	y mucks	s. o.	006	Orade Adj	ustricin	0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalent	Distan	ce (in t	feet)		
F	Road Grade:	0.0%				Autos	s: 96.	607			
	Left View:	-90.0 degree	es		Mediu	m Trucks	s: 96.	566			
	Right View:	90.0 degree	es		Hear	y Trucks	s: 96.	608			
FHWA Noise Mode	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresi	nel	Barrier Att	en Ber	m Atten
Autos:	68.46	-0.37		-4.3	39	-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45	-17.61		-4.3	39	-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-21.56		-4.3	39	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	Levels (withou	ut Topo and	barrie	er atte	nuation)						
VehicleType	Leq Peak Hour	Leq Day	,	Leq E	Evening	Leq	Night		Ldn	C	VEL
Autos:	62.5		60.6		58.8		52.8	-	61.4		62.0
Medium Trucks:	56.3		54.7		48.4		46.8	-	55.3	-	55.5
Heavy Trucks:	57.1 64.3		55.7 62.6		46.6		47.9		56.2		56.4
Vehicle Noise:					59.4		54.8	5	63.3	5	63.8
Centerline Distance	ce to Noise Con	tour (in feet	)	70	-/0.4	05	-(D) A		10 -1D 4		-(D.4
			I dn:		dBA 36		dBA 7	1 6	166		dBA 58
			Lan: VFI:		36 38		3		178	-	84
		Ci	VEL:		30	8	13		1/0	3	04

Scenario: Year 2016 Road Name: San Migue	Milde and Dealer									
Road Segment: West of N	t			Project N Job Nur			0			
SITE SPECIFIC II	NPUT DATA				NO	ISE N	10DE	L INPUT	S	
Highway Data			5	Site Con	ditions (H	lard =	10, Sc	ft = 15)		
Average Daily Traffic (Adt):	9,100 vehicle	s				,	Autos:	15		
Peak Hour Percentage:	10%			Me	dium Truc	ks (2 A	xles):	15		
Peak Hour Volume:	910 vehicle	s		He	avy Truck	s (3+ A	xles):	15		
Vehicle Speed:	45 mph		1	/ehicle l	Wix					
Near/Far Lane Distance:	52 feet				icleType		Dav	Evening	Night	Daily
Site Data							77.5%		9.6%	
Barrier Height:	0.0 feet			Me	edium Truc	cks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0			F	leavy Truc	cks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet		1	Voise Sc	ource Elev	ations	s (in fe	eet)		
Centerline Dist. to Observer:	100.0 feet				Autos:	2.0	000			
Barrier Distance to Observer:	0.0 feet			Mediui	n Trucks:	4.0	000			
Observer Height (Above Pad):	5.0 feet			Heav	y Trucks:	8.0	006	Grade Adj	iustment	0.0
Pad Elevation:	0.0 feet		٠,		uivalent D	N-4	- /! /	41		
Road Elevation:	0.0 feet			.ane Eq	Autos:	96.6		eet)		
Road Grade:	0.0%			Modium	n Trucks:	96.6				
Left View: Right View:	-90.0 degre 90.0 degre				y Trucks:	96.6				
FHWA Noise Model Calculation	ıs									
VehicleType REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresn	el	Barrier Att	en Bei	rm Atten
Autos: 68.46	-2.36		-4.39	9	-1.20		-4.87	0.0	000	0.00
Medium Trucks: 79.45	-19.60		-4.39	)	-1.20		-4.97	0.0	000	0.00
Heavy Trucks: 84.25			-4.39		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise Levels (with										
VehicleType Leq Peak Ho			Leq Ev		Leq Ni	_		Ldn		NEL
	0.5	58.6		56.8		50.8		59.4		60.0
	4.3	52.8		46.4		44.8		53.3		53.
	5.1	53.7		44.6		45.9		54.3		54.
	2.3	60.6		57.4		52.8		61.3	3	61.8
Centerline Distance to Noise C	ontour (in fee	;)	70 d	IBA	65 dE	3A	6	0 dBA	55	dBA
		Ldn:	26	I	57			122	- 2	264
		NFI:	28		61			131		283

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FI	₩A-RD-77-108 F	HIGHWAY	NOISE P	REDICTIO	N MODEL						
Scenario: Year 2010 Road Name: San Migu Road Segment: West of A	el				lame: NNC mber: 8211	PC					
SITE SPECIFIC	NPUT DATA					EL INPUTS	3				
Highway Data			Site Conditions (Hard = 10, Soft = 15)								
Average Daily Traffic (Adt):	18,100 vehicles				Auto	s: 15					
Peak Hour Percentage:	10%		Me	edium Truc	ks (2 Axles	): 15					
Peak Hour Volume:	1,810 vehicles		He	eavy Truck	s (3+ Axles	): 15					
Vehicle Speed:	45 mph		Vehicle	Miss							
Near/Far Lane Distance:	52 feet			icleType	Dav	Evening	Night Daily				
Site Data			*01		tos: 77.5	-	9.6% 97.42%				
	0.0 feet		M	edium Tru			10.3% 1.84%				
Barrier Height: Barrier Type (0-Wall, 1-Berm):	0.0 reet 0.0			Heavy Tru	cks: 86.5	% 2.7%	10.8% 0.74%				
Centerline Dist. to Barrier:	100.0 feet										
Centerline Dist. to Observer:	100.0 feet		Noise S	ource Ele	vations (in	feet)					
Barrier Distance to Observer:	0.0 feet			Autos:	2.000						
Observer Height (Above Pad):	5.0 feet		Mediu	m Trucks:	4.000						
Pad Flevation:	0.0 feet		Hear	vy Trucks:	8.006	Grade Adju	ustment: 0.0				
Road Flevation:	0.0 feet		I ane Fo	uivalent l	Distance (in	r feet)					
Road Grade:			zano zq	Autos:	96.607	, ,,,,,					
I eft View:	0.070	_	Modiu	m Trucks:	96.566						
Right View:	90.0 degrees			vy Trucks:	96,608						
ragin view.	50.0 degrees	5	7700	ry rraono.	00.000						
FHWA Noise Model Calculation											
VehicleType REMEL	Traffic Flow	Distance		Road	Fresnel	Barrier Atte	en Berm Atten				
Autos: 68.4	6 0.63	-4.3	39	-1.20	-4.87	7 0.0	0.000				
Medium Trucks: 79.4	5 -16.61	-4.3	39	-1.20	-4.97	7 0.0	0.000				
Heavy Trucks: 84.2	5 -20.57	-4.3	39	-1.20	-5.10	0.0	0.000				
Unmitigated Noise Levels (wit	hout Topo and b	arrier atte	nuation)								
VehicleType Leq Peak H	our Leq Day	Leq I	ening	Leq N	ight	Ldn	CNEL				
Autos: 6	3.5 6	1.6	59.8		53.8	62.4	63.0				
Medium Trucks:	57.2 5	5.7	49.4		47.8	56.3	56.5				
Heavy Trucks: 5	8.1 5	6.7	47.6		48.9	57.2	57.4				
Vehicle Noise:	55.3 6	3.6	60.4		55.8	64.3	64.8				
Centerline Distance to Noise	Contour (in feet)										
		70	dBA	65 di	BA	60 dBA	55 dBA				
	_		42	90		193	417				
	CN	EL:	45	96		208	447				

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	FH	WA-RD-77-108	B HIGH	łWAY	NOISE P	REDICT	ION MO	DEL					
Road Nam	io: Year 2016 ne: San Migue nt: East of Ava		ot				t Name: lumber:		С				
SITE	SPECIFIC IN	NPUT DATA				١	NOISE I	MODE	L INPUT	S			
Highway Data					Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt):	26,800 vehicle	es					Autos:	15				
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2 )	4xles):	15				
Peak H	lour Volume:	2,680 vehicle	es		He	avy Tru	cks (3+ )	4xles):	15				
Ve	hicle Speed:	45 mph			Vehicle	Miv							
Near/Far La	ne Distance:	52 feet				icleType	9	Day	Evening	Night	Daily		
Site Data							Autos:	77.5%	-	9.69			
Pa	Barrier Height: 0.0 feet						rucks:	84.8%	4.9%	10.39	% 1.84%		
Barrier Type (0-W		0.0			Heavy Trucks: 86.5% 2.7% 10.8% 0.7								
Centerline Dist. to Barrier: 100.0 feet					Noise Source Elevations (in feet)								
Centerline Dist.	to Observer:	100.0 feet			Autos: 2.000								
Barrier Distance	Barrier Distance to Observer: 0.0 feet					m Truck		000					
Observer Height (	(Above Pad):	5.0 feet				vy Truck		000	Grade Ad	iuetmai	at: 0.0		
P	ad Elevation:	0.0 feet			i icai	y Huck	.s. 0.	000	Orado Ad	ustrici	и. о.о		
Ro	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)				
	Road Grade:	0.0%				Auto	s: 96.	607					
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 96.	566					
	Right View:	90.0 degre	es		Hear	vy Truck	s: 96.	608					
FHWA Noise Mod	el Calculation	ıs			.1								
VehicleType	REMEL	Traffic Flow	Dis	tance	e Finite Road Fresnel Barrier Atten					en B	erm Atten		
Autos:	68.46			-4.3		-1.20		-4.87	0.0	000	0.000		
Medium Trucks:	79.45	-14.91		-4.3	39	-1.20		-4.97	0.0	000	0.000		
Heavy Trucks:	84.25	-18.86	i	-4.3	39	-1.20		-5.16	0.0	000	0.000		
Unmitigated Noise	e Levels (with	out Topo and	barri	er atte	nuation)								
VehicleType	Leq Peak Ho		_	Leq E	vening		Night		Ldn		CNEL		
Autos:	65		63.3		61.5		55.5	-	64.1		64.7		
Medium Trucks: 59.0 57.4					51.1		49.5	-	58.0	-	58.2		
Heavy Trucks:	59		58.4		49.3		50.6		58.9		59.1		
Vehicle Noise:	67		65.3		62.1		57.5	5	66.0	)	66.5		
Centerline Distan	ce to Noise C	ontour (in fee	t)					_		_			
			L		dBA		dBA	(	60 dBA	5	5 dBA		
		_	Ldn:		54 117 251			541					
		С	NEL:		58	1	25		270		581		

Autos: 77.5%   12.9%   9.6%   97.42		FHW	A-RD-77-108	HIGH	WAY N	NOISE P	REDICTI	ON MO	DEL			
Autos: 15   Auto	Road Nam	e: San Miguel	,	t						0		
Average Daily Traffic (Adt): 12,500 vehicles   Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15   Heavy Trucks (3+ Axles): 15   Wehicle Speed: 45 mph Vehicle Speed: 45 mph Vehicle Speed: 45 mph Vehicle Type   Day   Evening   Night   Daily   Night   Daily   Night   Daily   Night   Daily   Night   Daily   Night   Daily   Night   Daily   Night   Nigh	SITE	SPECIFIC INF	PUT DATA				N	OISE N	ИODE	L INPUT	S	
Peak Hour Percentage: Peak Hour Volume: 1,250 vehicle Speed: 45 mph Wehicle Speed: 45 mph Near/Far Lane Distance: 52 feet   Vehicle Mix Vehicle Fype   Day   Evening   Night   Daily	Highway Data					Site Cor	nditions (	Hard =	10, So	ft = 15)		
Peak Hour Volume:	Average Daily	Traffic (Adt): 12	2,500 vehicle	S					Autos:	15		
Vehicle Speed: Near/Far Lane Distance:   S2 feet   S2 feet   S2 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Dally   Site Data   Autos:   77.5%   12.9%   9.5%   97.4%   9.5%   97.4%	Peak Hour	Percentage:	10%									
Near/Far Lane Distance:   52 feet	Peak H	our Volume:	1,250 vehicle	S		He	eavy Truc	ks (3+ A	Axles):	15		
Near/Far Lane   Distance:   52 feet     VehicleType   Day   Evening   Night   Daily	Ve	hicle Speed:	45 mph		F	Vehicle	Miv					
Autos: 77.5%   12.9%   9.6%   97.42	Near/Far La	ne Distance:	52 feet						Dav	Evenina	Niaht	Daily
Heavy Trucks: 86.5%   2.7%   10.8%   0.74	Site Data							utos:	77.5%	0		,
Barrier Type (0-Wall, 1-Berm): 0.0   Centerline Dist. to Barrier: 100.0   feet	Rai	rior Hoight:	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Noise Source Elevations (in feet)   Noise Source Elevations (in feet)							Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Observer: 100.0 feet   Barrier Distance to Observer: 0.0 feet   Cobserver Height (Above Pad): 5.0 feet   Pad Elevation: 0.0 feet   Road Elevation: 0.0 feet   Road Elevation: 0.0 feet   Road Grade: 0.0%   Left View: -90.0 degrees   Right View: -90.0 degrees   Heavy Trucks: 96.607   Medium Trucks: 96.606   Heavy Trucks: 96.606   Heavy Trucks: 96.606   Heavy Trucks: 96.606   Heavy Trucks: 96.606   Heavy Trucks: 96.607   Medium Trucks: 96.606   Heavy Trucks: 96.607   Medium Trucks: 96.606   Heavy Trucks: 96.608   Heavy Trucks:	,, ,	. ,	100.0 feet		H	M-1 0	F1		- /! 6-	-41		
Barrier Distance to Observer: 0.0 feet   Medium Trucks: 4.000   Grade Adjustment: 0.0	Centerline Dist.	to Observer:	100.0 feet		Ľ,	Noise S			•	et)		
Page   Page	Barrier Distance	to Observer:	0.0 feet									
Pad Elevation:	Observer Height (	Above Pad):	5.0 feet							Crada Ad	i rotmo nt	
Road Grade:	Pa	ad Elevation:	0.0 feet			Hea	y Trucks	: 8.0	006	Grade Adj	usimeni	. 0.0
Left View:	Ros	ad Elevation:	0.0 feet			Lane Eq	uivalent	Distan	ce (in f	eet)		
FHWA Noise Model Calculations   VehicleType   REMEL   Traffic Flow   Distance   Finite Road   Fresnel   Barrier Atten   Bern Atten   Autos: 68.46   -0.98   -4.39   -1.20   -4.87   0.000   0.00   0	1	Road Grade:	0.0%				Autos	: 96.	607			
FHWA Noise Model Calculations   VehicleType   REMEL   Traffic Flow   Distance   Finite Road   Fresnel   Barrier Atten   Berm Atten		Left View:	-90.0 degree	es		Mediu	m Trucks	: 96.	566			
VehicleType		Right View:	90.0 degree	es		Hear	y Trucks	: 96.	608			
Autos:   68.46   -0.98   -4.39   -1.20   -4.87   0.000   0.00	FHWA Noise Mode	el Calculations										
Medium Trucks:         79.45         -18.22         -4.39         -1.20         -4.97         0.000         0.00           Unmitigated Noise Levels (without Topo and barrier attenuation)         VehicleType         Leq Peak How         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Medium Trucks:         51.9         60.0         58.2         52.2         60.8         61           Medium Trucks:         56.6         54.1         47.8         46.2         54.7         54           Heavy Trucks:         56.5         55.1         46.0         47.3         55.6         55           Vehicle Noise:         63.7         62.0         58.8         54.1         62.7         63           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         33         70         151         326	VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresn	nel	Barrier Att	en Bei	m Atten
Heavy Trucks:   84.25   -22.18   -4.39   -1.20   -5.16   0.000   0.00	Autos:	68.46	-0.98		-4.3	9	-1.20		-4.87	0.0	000	0.000
VehicleType	Medium Trucks:	79.45	-18.22		-4.3	9	-1.20		-4.97	0.0	000	0.000
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         61.9         60.0         58.2         52.2         60.8         61.8           Medium Trucks:         55.6         54.1         47.8         46.2         54.7         54           Heavy Trucks:         56.5         55.1         46.0         47.3         55.6         55           Vehicle Noise:         63.7         62.0         58.8         54.1         62.7         63           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         33         70         151         326	Heavy Trucks:	84.25	-22.18		-4.3	9	-1.20		-5.16	0.0	000	0.000
Autos:         61.9         60.0         58.2         52.2         60.8         61           Medium Trucks:         55.6         54.1         47.8         46.2         54.7         54           Heavy Trucks:         56.5         55.1         46.0         47.3         55.6         55           Vehicle Noise:         63.7         62.0         58.8         54.1         62.7         63           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         33         70         151         326	Unmitigated Noise	e Levels (witho	ut Topo and	barrie	r atten	nuation)						
Medium Trucks:         55.6         54.1         47.8         46.2         54.7         54           Heavy Trucks:         56.5         55.1         46.0         47.3         55.6         55           Vehicle Noise:         63.7         62.0         58.8         54.1         62.7         63           Centerline Distance to Noise Contour (in feet)           Ldn:         33         70         151         35 dBA	,,,	. ,	.,.,		Leq E		,					
Heavy Trucks:	Autos:	61.9	9	60.0		58.2		52.2	2	60.8	3	61.4
Vehicle Noise:         63.7         62.0         58.8         54.1         62.7         63           Centerline Distance to Noise Contour (in feet)           70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         33         70         151         326			-						-			54.9
Centerline Distance to Noise Contour (in feet)           70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         33         70         151         326			-									55.8
70 dBA 65 dBA 60 dBA 55 dBA Ldn: 33 70 151 326	Vehicle Noise:	63.7	7	62.0		58.8		54.1		62.7	7	63.1
Ldn: 33 70 151 326	Centerline Distant	ce to Noise Co	ntour (in feet	)								
									6			
CNEL: 35 75 162 349					-	-		-				
			CI	VEL:	3	15	7	5		162	3	149

Site Data		FHV	VA-RD-77-108	HIGH	WAY NO	DISE P	REDICT	ION MC	DEL			
Autos: 15   Autos: 15   Autos: 15   Autos: 15   Autos: 15   Peak Hour Vericeles   Vehicle Speed: 45 mph   Vehicle Type   Day   Evening   Night   Distance   Vehicle Type   Day   Evening   Night   Distance   Vehicle Type   Day   Evening   Night   Distance   Vehicle Type   Day   Evening   Night   Distance   Vehicle Type   Day   Evening   Night   Distance   Vehicle Type   Day   Evening   Night   Distance   Vehicle Type   Day   Evening   Night   Distance   Vehicle Mix   Vehicle Type   Day   Evening   Night   Distance   Vehicle Type   Day   Evening   Night   Distance   Vehicle Mix   Vehicle Type   Day   Evening   Night   Distance   Vehicle Type   Day   Evening   Night   Distance   Vehicle Type   Day   Evening   Night   Distance   Vehicle Type   Day   Evening   Night   Distance   Vehicle Type   Day   Evening   Night   Distance   Vehicle Type   Day   Evening   Night   Distance   Vehicle Type   Day   Evening   Night   Distance   Vehicle Type   Autos: 86.5%   2.7%   10.8%   0.9%   0	Road Nan	ne: San Miguel	,	t						C		
Average Daily Traffic (Adt): 25,000 vehicles   Peak Hour Percentage: 10%   Medium Trucks: (2 Axles): 15   15	SITE	SPECIFIC IN	IPUT DATA				1	NOISE	MODE	L INPUT	S	
Peak Hour Volume: 2,500 vehicles   Peak Hour Volu	Highway Data				S	ite Coı	nditions	(Hard =	: 10, S	oft = 15)		
Peak Hour Volume: Vehicle Speed: 45 mph   Vehicle Mix	Average Daily	Traffic (Adt): 2	25,000 vehicle	s					Autos:	15		
Vehicle Speed:         45 mph         Vehicle Mix         Vehicle Mix         Vehicle Type         Day         Evening         Night         De per Alter           Site Data         Autos: 77.5%         12.9%         9.6%         95.7%         96.7%         95.7%         96.7%         <	Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Near/Far Lane Distance:   52 leet   Vehicle Type   Day   Evening   Night   Day   Evening   Night   Day   Steet   Night   Day   Evening   Night   Day   Steet   Night   Day   Steet   Night   Day   Steet   Night   Day   Steet   Night   Day   Steet   Night   Night   Day   Steet   Night   Night   Day   Steet   Night   Night   Night   Day   Steet   Night   Nig	Peak F	lour Volume:	2,500 vehicle	s		He	eavy Tru	cks (3+	Axles):	15		
Near/Far Lane Distance:   52 feet   VehicleType   Day   Evening   Night   Day	Ve	ehicle Speed:	45 mph		V	ohiclo	Miv					
Barrier Height:   0.0   feet	Near/Far La	ane Distance:	52 feet		F.			9	Day	Evening	Night	Daily
Barrier Tright:   U.0   Teet   Heavy Trucks: 86.5%   2.7%   10.8%   0.	Site Data							Autos:	77.5%	12.9%	9.6%	97.429
Barrier Type (0-Wall, 1-Berm): 0.0   Centerline Dist. to Dasrier: 100.0   feet	Ba	rrier Heiaht:	0.0 feet			M	ledium T	rucks:	84.8%	4.9%	10.3%	1.84%
Centerline Dist. to Observer:   100.0   feet			0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.749
Centerline Dist. to Observer: 100.0   feet Barrier Distance to Observer: 0.0   feet Observer Height (Above Pad): 5.0   feet Pad Elevation: 0.0   feet Road Grade: 0.0%   Left View: 90.0   degrees Right View: 90.0   degrees PhWA Noise Model Calculations	Centerline Di	ist. to Barrier:	100.0 feet		N	oise S	ource E	levation	ıs (in f	eet)		
Distance   Freshold			100.0 feet							,		
Pad Elevation:   0.0   feet						Mediu	m Truck	s: 4	.000			
Road Elevation:   0.0   feet						Hea	vv Truck	s: 8	.006	Grade Ad	justmen	t: 0.0
Road Grade:							,					
Left View: -90.0 degrees   Medium Trucks: 96.566   Heavy Trucks: 96.608					Li	ane Eq				feet)		
FHWA Noise Model Calculations   Vehicle Type   REMEL   Traffic Flow   Distance   Finite Road   Fresnel   Barrier Atten   Berm Alton   Company												
FHWA Noise Model Calculations   Vehicle Type   REMEL   Traffic Flow   Distance   Finite Road   Fresnel   Barrier Atten   Bern Atten   Remember   Remembe												
VehicleType		Right View:	90.0 degre	es		Hea	vy Truck	s: 96	.608			
Autos: 68.46   2.03   -4.39   -1.20   -4.87   0.000   0												
Medium Trucks: 79.45   -15.21   -4.39   -1.20   -4.97   0.000   0.000   0.000     Heavy Trucks: 84.25   -19.17   -4.39   -1.20   -5.16   0.000   0.000     Unmitigated Noise Levels (without Topo and barrier attenuation)   Vehicle Type   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNEL     Autos: 64.9   63.0   61.2   55.2   63.8     Medium Trucks: 58.6   57.1   50.8   49.2   57.7     Heavy Trucks: 59.5   58.1   49.0   50.3   58.6     Vehicle Noise: 66.7   65.0   61.8   57.2   65.7						Finite		Fres				
Heavy Trucks:         84.25         -19.17         -4.39         -1.20         -5.16         0.000         C           Unmitigated Noise: Levels (without Topo and barrier attenuation)           Vehicle Type         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         64.9         63.0         61.2         55.2         63.8           Medium Trucks:         58.6         67.1         50.8         49.2         57.7           Heavy Trucks:         59.5         58.1         49.0         50.3         58.6           Vehicle Noise:         66.7         65.0         61.8         57.2         65.7												0.00
Unmittigated Noise   Levels (without Topo and barrier attenuation)   VehicleType   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNEL												0.00
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         64.9         63.0         61.2         55.2         63.8           Medium Trucks:         58.6         57.1         50.8         49.2         57.7           Heavy Trucks:         59.5         58.1         49.0         50.3         58.6           Vehicle Noise:         66.7         65.0         61.8         57.2         65.7							-1.20		-5.16	0.0	000	0.00
Autos:         64.9         63.0         61.2         55.2         63.8           Medium Trucks:         58.6         57.1         50.8         49.2         57.7           Heavy Trucks:         59.5         58.1         49.0         50.3         58.6           Vehicle Noise:         66.7         65.0         61.8         57.2         65.7							100	Nioshi	1	l de		MEI
Medium Trucks:         58.6         57.1         50.8         49.2         57.7           Heavy Trucks:         59.5         58.1         49.0         50.3         58.6           Vehicle Noise:         66.7         65.0         61.8         57.2         65.7					Leq Eve				2			NEL 64.
Heavy Trucks:         59.5         58.1         49.0         50.3         58.6           Vehicle Noise:         66.7         65.0         61.8         57.2         65.7									_		-	57.
Vehicle Noise: 66.7 65.0 61.8 57.2 65.7									_			58.
Centerline Distance to Noise Contour (in feet)												66.
	Centerline Distan	ce to Noise Co	ontour (in feet	<u>!)</u>								
70 dBA 65 dBA 60 dBA 55 dBA			,	L	70 dE	ВА	65	dBA	1	60 dBA	55	i dBA
Ldn: 52 111 240 517												
CNEL: 55 119 257 555			C	NEL:	55		1	19		257	:	555

Tuesday, May 29, 2012

FH	WA-RD-77-108 HIG	HWAY N	IOISE PF	REDICTIO	N MC	DDEL						
Scenario: Year 2016	Without Project			Project N	lame:	NNCP	C					
Road Name: Coast Hig	hway		Job Number: 8211									
Road Segment: West of Ja	amboree											
SITE SPECIFIC I	NPUT DATA						L INPUT	S				
Highway Data			Site Con	ditions (F	lard :	= 10, S	oft = 15)					
Average Daily Traffic (Adt):	71,500 vehicles					Autos:	15					
Peak Hour Percentage:	10%		Me	dium Truc	ks (2	Axles):	15					
Peak Hour Volume:	7,150 vehicles		He	avy Truck	s (3+	Axles):	15					
Vehicle Speed:	45 mph	F	Vehicle I	Mix								
Near/Far Lane Distance:	76 feet	F		icleType		Day	Evening	Night	Daily			
Site Data				AL	ıtos:	77.5%	12.9%	9.6%	97.42%			
Barrier Height:	0.0 feet		Me	edium Tru	cks:	84.8%	4.9%	10.3%	1.84%			
Barrier Type (0-Wall, 1-Berm):	0.0		F	leavy Tru	cks:	86.5%	2.7%	10.8%	0.74%			
Centerline Dist. to Barrier:	100.0 feet		Noise Sc	urce Ele	vatio	ns (in f	eet)					
Centerline Dist. to Observer:	100.0 feet	F		Autos:		.000	/					
Barrier Distance to Observer:	0.0 feet		Mediur	n Trucks:		.000						
Observer Height (Above Pad):	5.0 feet			y Trucks:		.006	Grade Ad	liustment	: 0.0			
Pad Elevation:	0.0 feet	L						,				
Road Elevation:	0.0 feet		Lane Equ	uivalent L			feet)					
Road Grade:	0.0%			Autos:		.547						
Left View:	-90.0 degrees			n Trucks:		.504						
Right View:	90.0 degrees		Heav	y Trucks:	92	.547						
FHWA Noise Model Calculation	าร											
VehicleType REMEL		istance	Finite		Fres		Barrier At		m Atten			
Autos: 68.46		-4.1		-1.20		-4.87		000	0.000			
Medium Trucks: 79.45		-4.1		-1.20		-4.97		000	0.000			
Heavy Trucks: 84.25	-14.60	-4.1	1	-1.20		-5.16	0.	000	0.000			
Unmitigated Noise Levels (with						1		_				
VehicleType Leq Peak Ho		Leq E	_	Leq N	_		Ldn		NEL			
	9.7 67.8		66.1		60.	-	68.		69.2			
	3.5 62.0		55.6		54.		62.		62.8			
,	4.3 62.9		53.9		55.		63.		63.6			
	1.6 69.8		66.7		62.	.0	70.	5	71.0			
Centerline Distance to Noise C	Contour (in feet)	70	10.4			_			10.4			
		70 0		65 dE			60 dBA		dBA			
	Ldn: CNFL:		-	234			505 541		087 166			
				251								

FHW	/A-RD-77-108	HIGHW	AY NOISE F	PREDICT	ON MO	DEL						
Scenario: Year 2016 V Road Name: Coast High Road Segment: East of Jam	vay	!			Name: umber:		С					
SITE SPECIFIC IN	PUT DATA			NOISE MODEL INPUTS								
Highway Data			Site Conditions (Hard = 10, Soft = 15)									
Average Daily Traffic (Adt): 5	8,300 vehicles	3				Autos:	15					
Peak Hour Percentage:	10%		M	ledium Tr	icks (2	Axles):	15					
Peak Hour Volume:	5,830 vehicles	8	H	leavy Tru	cks (3+ )	Axles):	15					
Vehicle Speed:	45 mph		Vehicle	Mix								
Near/Far Lane Distance:	76 feet			hicleType		Day	Evening	Night	Daily			
Site Data				,	Autos:	77.5%	12.9%	9.6%	97.42%			
Barrier Height:	0.0 feet	/	Лedium T	rucks:	84.8%	4.9%	10.3%	1.84%				
Barrier Type (0-Wall, 1-Berm):		Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%					
Centerline Dist. to Barrier:	100.0 feet		Noise S	Source E	evation	s (in fe	eet)					
Centerline Dist. to Observer:	100.0 feet			Auto		000	,					
Barrier Distance to Observer:	0.0 feet		Medi	um Truck	s: 4.	000						
Observer Height (Above Pad):	5.0 feet		Hea	avy Truck	s: 8.	006	Grade Ad	justment	: 0.0			
Pad Elevation:	0.0 feet											
Road Elevation:	0.0 feet		Lane E	quivalen			eet)					
Road Grade:	0.0%			Auto		.547						
Left View:	-90.0 degree			um Truck		504						
Right View:	90.0 degree	es	Hea	avy Truck	s: 92.	547						
FHWA Noise Model Calculations	;											
VehicleType REMEL	Traffic Flow	Distar	nce Finit	e Road	Fresi	nel	Barrier Att	en Bei	rm Atten			
Autos: 68.46	5.71		-4.11	-1.20		-4.87	0.0	000	0.000			
Medium Trucks: 79.45	-11.53		-4.11	-1.20		-4.97	0.0	000	0.000			
Heavy Trucks: 84.25	-15.49		-4.11	-1.20		-5.16	0.0	000	0.000			
Unmitigated Noise Levels (with				_								
VehicleType Leq Peak Hou			eq Evening		Night		Ldn		NEL			
Autos: 68.	-	67.0	65.	_	59.		67.8		68.4			
Medium Trucks: 62.	-	61.1	54.		53.2	_	61.		61.9			
Heavy Trucks: 63. Vehicle Noise: 70.		62.0 68.9	53. 65.		54.2 61.		62.0		62.7 70.1			
Centerline Distance to Noise Co				-		-			70.1			
	mour (m reet)											
Centerline Distance to Noise Co			70 dBA	65	dBA	6	i0 dBA	55	dBA			
Centerline Distance to Noise Co		Ldn:	70 dBA 95		dBA 04	6	60 dBA 440		49 949			

Tuesday,	May	29	2012
ruesuay,	ividy	20,	2012

	FH\	WA-RD-77-108	HIGHWA'	Y NOISE P	REDICTIO	N MODE	EL.				
Road Nam		Without Projec way			Project N		NCPC				
SITE	SPECIFIC IN	IPUT DATA			NC	ISE MO	DEL INPU	TS			
Highway Data				Site Cor	nditions (F	lard = 10	), Soft = 15)				
	Percentage:	10%			edium Truc	ks (2 Ax	,				
	lour Volume:	4,520 vehicle	S	He	eavy Truck	s (3+ Ax	es): 15				
	hicle Speed:	45 mph		Vehicle Mix							
Near/Far La	ne Distance:	76 feet		Veh	icleType	D.	ay Evening	g Nigh	t Daily		
Site Data							7.5% 12.9%	6 9.6	% 97.42%		
Bai	rrier Height:	0.0 feet			ledium Tru		1.8% 4.9%				
Barrier Type (0-W	/all, 1-Berm):	0.0			Heavy Tru	cks: 86	5.5% 2.7%	6 10.8	% 0.749		
Centerline Dis	st. to Barrier:	100.0 feet		Noise S	ource Ele	vations	in feet)				
Centerline Dist.	to Observer:	100.0 feet		110,000	Autos:	2.00					
Barrier Distance	to Observer:	0.0 feet		Modiu	m Trucks:	4.00	-				
Observer Height (	(Above Pad):	5.0 feet			vy Trucks:	8.00		diuetme	nt: 0.0		
Pa	ad Elevation:	0.0 feet		пеа	vy Trucks.	8.00	6 Grade A	iajasimo	71L. U.U		
Roa	ad Elevation:	0.0 feet		Lane Eq	uivalent E	Distance	(in feet)				
	Road Grade:	0.0%			Autos:	92.54	7				
	Left View:	-90.0 degree	es	Mediu	m Trucks:	92.50	4				
	Right View:	90.0 degree	es	Hea	vy Trucks:	92.54	7				
FHWA Noise Mod	el Calculation	s		1							
VehicleType	REMEL	Traffic Flow	Distanc	e Finite	Road	Fresnel	Barrier A	ltten E	Berm Atten		
Autos:	68.46	4.60	-4	1.11	-1.20	-4	.87 (	0.000	0.00		
Medium Trucks:	79.45	-12.64	-4	1.11	-1.20	-4	.97 (	0.000	0.00		
Heavy Trucks:	84.25	-16.59	-4	1.11	-1.20	-5	.16 (	0.000	0.00		
Unmitigated Noise	e Levels (with	out Topo and	barrier att	tenuation)							
VehicleType	Leq Peak Hou	ır Leq Day	Leq	Evening	Leq N	ight	Ldn		CNEL		
Autos:	67	.7	65.8	64.1		58.0	66	6.6	67.		
Medium Trucks:	61		60.0	53.6		52.1		).5	60.		
Heavy Trucks:	62		60.9	51.9		53.1	-	1.5	61.		
Vehicle Noise:	69	.6	67.8	64.7		60.0	68	3.6	69.		
Centerline Distant	ce to Noise Co	ontour (in feet									
				0 dBA	65 dE		60 dBA		55 dBA		
			Ldn:	80	173		372		801		
		CI	VEL:	86	185	5	399		859		

	FH\	WA-RD-77-108	HIGH	WAY NO	DISE P	REDICT	ION MO	DEL			
Road Nan	rio: Year 2016 ne: Coast High ent: West of Ne	iway	t				t Name: lumber:		С		
SITE	SPECIFIC IN	IPUT DATA				1	NOISE I	MODE	L INPUT	S	
Highway Data				S	ite Cor	nditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	54,100 vehicle	s					Autos:	15		
Peak Hour	r Percentage:	10%			Me	edium Tr	ucks (2 )	4xles):	15		
Peak I	Hour Volume:	5,410 vehicle	S		He	eavy Tru	cks (3+ )	4xles):	15		
Ve	ehicle Speed:	45 mph		ν	ehicle	Mix					
Near/Far La	ane Distance:	76 feet		F		icleType	9	Day	Evening	Night	Daily
Site Data						-	Autos:	77.5%	12.9%	9.6%	97.42%
Ba	rrier Heiaht:	0.0 feet			M	ledium T	rucks:	84.8%	4.9%	10.39	1.84%
Barrier Type (0-V		0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%
	ist. to Barrier:	100.0 feet		Ν	oise S	ource E	levation	s (in fe	eet)		
Centerline Dist.		100.0 feet				Auto		000			
Barrier Distance		0.0 feet			Mediu	m Truck	s: 4.	000			
Observer Height		5.0 feet			Hear	vy Truck	s: 8.	006	Grade Ad	justmen	t: 0.0
	Pad Elevation:	0.0 feet					4 Di-4	/!	e 4\		
	ad Elevation:	0.0 feet		L	ane Eq	uivaien Auto	t Distan	ce (in : 547	reet)		
	Road Grade: Left View:	0.0%			Modiu	Auto m Truck		547 504			
	Right View:	-90.0 degre 90.0 degre				vy Truck		547			
FHWA Noise Moo	lel Calculation	is.									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fresi	nel	Barrier Att	en Be	rm Atten
Autos:	68.46	5.38		-4.11		-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45	-11.86		-4.11		-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-15.81		-4.11		-1.20		-5.16	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	r attenu	ation)						
VehicleType	Leq Peak Hot	ur Leq Day	/	Leq Ev	ening	Leq	Night		Ldn	(	NEL
Autos:			66.6		64.9		58.8		67.		68.0
Medium Trucks:			60.8		54.4		52.9		61.3		61.6
Heavy Trucks:			61.7		52.7		53.9		62.3		62.4
Vehicle Noise:			68.6		65.5		60.8	3	69.	3	69.8
Centerline Distan	ice to Noise C	ontour (in feet	)	70 "		-	-10.4		20 -104	-	(D.4
			I dn:	70 di			dBA 95	6	60 dBA 419		5 dBA
			Ldn: NEL:	90 97			95 109		419 450		903 968
		Ci	VEL:	97		2	.09		400		908

FI	HWA-RD-77-108 HI	GHWAY	NOISE PI	REDICTIO	ON MO	DEL			
Scenario: Year 201 Road Name: Coast Hig Road Segment: West of A	jhway			Project N Job Nu			С		
SITE SPECIFIC	INPUT DATA			NO	DISE N	MODE	L INPUT	S	
Highway Data			Site Cor	nditions (l	Hard =	10, S	oft = 15)		
Average Daily Traffic (Adt):	43,800 vehicles					Autos:	15		
Peak Hour Percentage:	10%		Me	edium Truc	cks (2 /	4xles):	15		
Peak Hour Volume:	4,380 vehicles		He	avy Truck	is (3+ /	Axles):	15		
Vehicle Speed:	45 mph	-	Vehicle						
Near/Far Lane Distance:	76 feet			icleType		Dav	Evening	Night	Daily
Site Data			ven		ıtos:	77.5%	-	9.6%	,
				edium Tru		84.8%		10.3%	
Barrier Height:	0.0 feet			Heavy Tru		86.5%		10.8%	
Barrier Type (0-Wall, 1-Berm):	0.0		,	ileavy iiu	uns.	00.57	2.170	10.076	0.747
Centerline Dist. to Barrier:	100.0 feet	[	Noise S	ource Ele	vation	s (in f	eet)		
Centerline Dist. to Observer:	100.0 feet			Autos:	2.	000			
Barrier Distance to Observer:	0.0 feet		Mediu	m Trucks:	4.	000			
Observer Height (Above Pad): Pad Flevation:	5.0 feet		Heav	vy Trucks:	8.	006	Grade Ad	justment	: 0.0
Road Flevation:	0.0 1001	-	I ano Eo	uivalent l	Dietan	co (in	foot)		
Road Elevation: Road Grade:	0.0 1001	-	Lane Ly	Autos:		547	ieet)		
Road Grade: Left View:	0.070		Modiu	m Trucks:		504 504			
	00.0 009.000					547			
Right View:	90.0 degrees		пеан	vy Trucks:	92.	547			
FHWA Noise Model Calculation	ns	•							
VehicleType REMEL		Distance		Road	Fresr	-	Barrier Att		m Atten
Autos: 68.4		-4.		-1.20		-4.87		000	0.000
Medium Trucks: 79.4		-4.1		-1.20		-4.97		000	0.000
Heavy Trucks: 84.2	5 -16.73	-4.	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise Levels (with		_				,			
VehicleType Leq Peak H			vening	Leq N	_		Ldn		NEL
	65.		63.9		57.9	-	66.5	-	67.
	51.4 59.	-	53.5		51.9		60.4		60.6
	32.2 60.	-	51.8		53.0		61.4		61.5
Vehicle Noise:	67.	.7	64.6		59.9	9	68.4	4	68.9
Centerline Distance to Noise	Contour (in feet)		/D.4						10.4
			dBA	65 d			60 dBA		dBA
	Ldr		78	169	-		364		84
	CNEL	L: i	34	18	ı		390	3	341

	FHW	/A-RD-77-108	HIGH	YAW	NOISE PI	REDICT	ION MC	DEL			
Road Nam	io: Year 2016 V ne: Coast Highv nt: East of Ava	vay	t)			.,	t Name: lumber:		PC		
SITE	SPECIFIC IN	PUT DATA				1	NOISE	MODE	EL INPUT	S	
Highway Data					Site Con	ditions	(Hard =	: 10, S	oft = 15)		
Average Daily	Traffic (Adt): 4	5,000 vehicles	3					Autos	: 15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles)	: 15		
Peak H	lour Volume:	4,500 vehicles	S		He	avy Tru	cks (3+	Axles)	: 15		
Ve	hicle Speed:	45 mph		H	Vehicle	Mix					
Near/Far La	ne Distance:	76 feet		ŀ		icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	77.59	-	9.69	
Rai	rrier Heiaht:	0.0 feet			М	edium T	rucks:	84.89	6 4.9%	10.39	6 1.84%
Barrier Type (0-W		0.0			1	Heavy T	rucks:	86.59	6 2.7%	10.89	6 0.74%
Centerline Dis	. ,	100.0 feet		-	Noise S			- /!	f4)		
Centerline Dist.	to Observer:	100.0 feet			Noise S	Auto			reet)		
Barrier Distance	to Observer:	0.0 feet			Modiu	Auto m Truck		000			
Observer Height (	Above Pad):	5.0 feet				ry Truck		.006	Grade Ad	iuotmor	w. 0.0
Pa	ad Elevation:	0.0 feet			пеац	ту ттиск	.s. o.	.000	Grade Au,	usunci	и. О.О
Ros	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distan	ce (in	feet)		
	Road Grade:	0.0%				Auto	s: 92	.547			
	Left View:	-90.0 degree	es		Mediu	m Truck	s: 92	.504			
	Right View:	90.0 degree	es		Heav	y Truck	s: 92	.547			
FHWA Noise Mod	el Calculations	3									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresi	nel	Barrier Att	en Be	erm Atten
Autos:	68.46	4.58		-4.1		-1.20		-4.87		000	0.000
Medium Trucks:	79.45	-12.66		-4.1		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-16.61		-4.1	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (witho	out Topo and	barrie	r atter	nuation)						
VehicleType	Leq Peak Hou		_	Leq E	vening	Leq	Night		Ldn		CNEL
Autos:	67.	-	65.8		64.1		58.		66.6		67.2
Medium Trucks:	61.	-	60.0		53.6		52.		60.5	-	60.8
Heavy Trucks:	62.	3	60.9		51.9		53.	1	61.5	5	61.6
Vehicle Noise:	69.	6	67.8		64.7		60.	0	68.5	5	69.0
Centerline Distant	ce to Noise Co	ntour (in feet,	)								
				70	dBA		dBA		60 dBA	5	5 dBA
			Ldn:		0		72		371		798
		CI	VEL:	8	6	1	85		398		857

	FHW	/A-RD-77-108	HIGHV	VAY NO	OISE PI	REDICTI	ON MOI	DEL			
Road Name	o: Year 2016 Ve: Coast Highwat: East of Mac	vay				Project Job No	Name: I umber: 8		С		
SITE S	SPECIFIC IN	PUT DATA				N	OISE N	/ODE	L INPUTS	3	
Highway Data				S	ite Con	ditions (	Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 6	1,700 vehicles	5				,	Autos:	15		
Peak Hour I	Percentage:	10%				dium Tru					
Peak He	our Volume:	6,170 vehicles			He	avy Truc	ks (3+ A	(x/es	15		
Vel	hicle Speed:	45 mph		ν	ehicle	Mix					
Near/Far Lar	ne Distance:	76 feet		ř		icleType		Day	Evening	Night	Daily
Site Data								77.5%		9.6%	
Rar	rier Height:	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wa		0.0			1	leavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis		100.0 feet							- 1		
Centerline Dist. t		100.0 feet		N	ioise S	ource Ele		•	eet)		
Barrier Distance t	to Observer:	0.0 feet				Autos		000			
Observer Height (	Above Pad):	5.0 feet				m Trucks		000	O		
	d Elevation:	0.0 feet			Heav	y Trucks	: 8.0	006	Grade Adj	ustment.	0.0
Roa	d Elevation:	0.0 feet		L	ane Eq	uivalent	Distanc	ce (in t	feet)		
F	Road Grade:	0.0%				Autos	: 92.	547			
	Left View:	-90.0 degree	es.		Mediu	m Trucks	: 92.	504			
	Right View:	90.0 degree	:S		Heav	y Trucks	: 92.	547			
FHWA Noise Mode	el Calculations	i									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fresn	iel	Barrier Atte	en Ber	m Atten
Autos:	68.46	5.95		-4.11		-1.20		-4.87	0.0		0.00
Medium Trucks:	79.45	-11.29		-4.11		-1.20		-4.97	0.0		0.000
Heavy Trucks:	84.25	-15.24		-4.11		-1.20		-5.16	0.0	00	0.000
Unmitigated Noise	Levels (with	out Topo and I	barrier	attenu	ıation)						
,,	Leq Peak Hou			Leq Eve		Leq I			Ldn		VEL
Autos:	69.		37.2		65.4		59.4		68.0		68.6
Medium Trucks:	62.		31.3		55.0		53.4		61.9		62.1
Heavy Trucks:  Vehicle Noise:	63. 70.		32.3 39.2		53.2 66.0		54.5 61.4		62.8 69.9		63.0 70.4
Centerline Distance					00.0		01.4		03.3		70.5
cemeriine vistanc	e to noise Co	mour (in reet)		70 dl	D.A	05.	/D /		60 dBA		-10.4
				70 at	DA	65 0	IBA		JU UDA	55	dBA
		ı	_dn:	99		21			457		85

FH	IWA-RD-77-108	HIGHW	/AY N	OISE PI	REDICT	ION M	ODEL			
Scenario: Year 2016 Road Name: Coast Hig Road Segment: West of N	hway	t				t Name lumber	: NNCF : 8211	C		
SITE SPECIFIC I	NPUT DATA				1	NOISE	MODE	L INPUTS	S	
Highway Data			S	Site Cor	ditions	(Hard	= 10, S	oft = 15)		
Average Daily Traffic (Adt):	41,800 vehicles	3					Autos	15		
Peak Hour Percentage:	10%			Me	dium Tr	ucks (2	Axles)	15		
Peak Hour Volume:	4,180 vehicles	3		He	avy Tru	cks (3+	- Axles)	15		
Vehicle Speed:	45 mph		V	/ehicle	Mix					
Near/Far Lane Distance:	76 feet		F	Veh	icleType	9	Day	Evening	Night	Daily
Site Data						Autos:	77.5%	6 12.9%	9.6%	97.42%
Barrier Height:	0.0 feet			M	edium T	rucks:	84.89	6 4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0			-	Heavy T	rucks:	86.5%	6 2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet		٨	loise S	ource E	levatio	ns (in t	eet)		
Centerline Dist. to Observer:	100.0 feet				Auto		2.000	,		
Barrier Distance to Observer:	0.0 feet			Mediu	m Truck		4.000			
Observer Height (Above Pad):	5.0 feet			Heav	y Truck	:s: 8	3.006	Grade Adj	ustment	: 0.0
Pad Elevation:	0.0 feet		<u> </u>		·					
Road Elevation:	0.0 feet		L	ane Eq	uivalen			feet)		
Road Grade:	0.0%				Auto		2.547			
Left View:	-90.0 degree				m Truck		2.504			
Right View:	90.0 degree	es		Heat	y Truck	is: 9.	2.547			
FHWA Noise Model Calculation				,						
VehicleType REMEL	Traffic Flow	Dista			Road	Fre	snel	Barrier Atte		m Atten
Autos: 68.46			-4.11		-1.20		-4.87	0.0		0.000
Medium Trucks: 79.4			-4.11		-1.20		-4.97			0.000
Heavy Trucks: 84.25			-4.11		-1.20		-5.16	0.0	100	0.000
VehicleType Leg Peak Ho			.eq Ev		100	Night	_	Ldn		NEL
,, ,		65.5	.ey Ev	63.7		rvigrit 57	7	66.3		66.9
		59.7		53.3		51		60.2		60.4
		60.6		51.5		52		61.2		61.3
	9.2	67.5		64.4		59	).7	68.2	2	68.7
Centerline Distance to Noise C	Contour (in feet)	)								
			70 d	BA .	65	dBA		60 dBA	55	dBA
		Ldn:				'60				
	CI	VEL:	82	82 176 378 815			315			

Tuesday, May 29, 2012

	FH'	WA-RD-77-108	HIGH	WAY N	OISE P	REDICTIO	ON MO	DDEL			
Road Nar	rio: Year 2016 me: Jamboree ent: North of Ea	,				Project I Job Nu			С		
SITE	SPECIFIC IN	NPUT DATA							L INPUT	S	
Highway Data				5	Site Cor	nditions (	Hard:	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	52,400 vehicle	S					Autos:	15		
Peak Hou	r Percentage:	10%				edium True					
Peak I	Hour Volume:	5,240 vehicle	S		He	eavy Truck	rs (3+	Axles):	15		
V	ehicle Speed:	45 mph		1	/ehicle	Mix					
Near/Far La	ane Distance:	76 feet		F		icleType		Day	Evening	Night	Daily
Site Data							utos:	77.5%	-	9.6%	-
Ra	arrier Height:	0.0 feet			М	edium Tru	icks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-V		0.0				Heavy Tru	icks:	86.5%	2.7%	10.8%	0.74%
Centerline D	ist. to Barrier:	100.0 feet		,	loise S	ource Ele	vatio	ns (in f	eet)		
Centerline Dist	to Observer:	100.0 feet		F		Autos		.000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks		.000			
Observer Height	(Above Pad):	5.0 feet				vy Trucks:		.006	Grade Ad	liustment	0.0
F	Pad Elevation:	0.0 feet		_						,	
Ro	oad Elevation:	0.0 feet		L	ane Eq	uivalent			feet)		
	Road Grade:	0.0%				Autos:		.547			
	Left View:	-90.0 degre	es			m Trucks.		.504			
	Right View:	90.0 degre	es		Hea	vy Trucks:	92	.547			
FHWA Noise Mod	del Calculation	-									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos				-4.11		-1.20		-4.87		000	0.000
Medium Trucks				-4.11		-1.20		-4.97		000	0.000
Heavy Trucks	84.25	-15.95		-4.11		-1.20		-5.16	0.0	000	0.000
Unmitigated Nois	e Levels (with	out Topo and	barrie	r atteni	uation)						
VehicleType	Leq Peak Ho			Leq Ev		Leq N	_		Ldn		NEL
Autos			66.5		64.7		58		67.3		67.9
Medium Trucks			60.6		54.3		52		61.2	_	61.4
Heavy Trucks			61.6		52.5		53	_	62.1		62.3
Vehicle Noise	: 70	0.2	68.5		65.3		60	.7	69.2	2	69.7
Centerline Distar	ice to Noise C	ontour (in feet	)							,	
			L		70 dBA 65 dBA			'	60 dBA		dBA
			Ldn:		88 190		-		410		84
		C	NEL:	95	Ď	20	204 440			948	

Tuesday, May 29, 2012

	FH\	WA-RD-77-108	HIGH	IWAY N	OISE P	REDICT	ION M	ODEL			
Road Nam	io: Year 2016 ne: Jamboree nt: Eastbluff to	With Project San Joaquin F	Hills			.,	t Name: lumber:	NNCP 8211	С		
SITE	SPECIFIC IN	IPUT DATA				1	NOISE	MODE	L INPUT	S	
Highway Data				5	Site Cor	nditions	(Hard	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	63,200 vehicle	S					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tı	rucks (2	Axles):	15		
Peak H	lour Volume:	6,320 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		1	/ehicle	Mix					
Near/Far La	ne Distance:	76 feet			Ver	icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
Rai	rrier Height:	0.0 feet			M	ledium 7	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W	all, 1-Berm):	0.0				Heavy 7	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis		100.0 feet		1	Voise S	ource E	levatio	ns (in fe	eet)		
Centerline Dist.		100.0 feet				Auto	s: 2	2.000			
Barrier Distance		0.0 feet			Mediu	m Truck	rs: 4	.000			
Observer Height (	,	5.0 feet			Hea	vy Truck	rs: 8	3.006	Grade Ad	justmeni	: 0.0
	ad Elevation:	0.0 feet		١.			4 Di-4-	//	r4\		
	ad Elevation:	0.0 feet		- 4	.ane Eq	uivalen Auto		nce (in 1	eet)		
'	Road Grade:	0.0%				m Truck		2.504			
	Left View:	-90.0 degree				m Truck vy Truck		2.504			
	Right View:	90.0 degree	es		пеа	vy Truck	15. 92	2.547			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fres		Barrier At		rm Atten
Autos:	68.46	6.06		-4.11		-1.20		-4.87		000	0.000
Medium Trucks:	79.45	-11.18		-4.11		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25			-4.11		-1.20		-5.16	0.0	000	0.000
VehicleType	<b>Leyels (with</b> Leg Peak Hou		_	er atteni Leg Ev		100	Night	1	Ldn		NEL
Autos:	Ley reak not		67.3	Ley Ev	65.5	,	Tvigrit 59	Б	68.		68.7
Medium Trucks:	63		61.4		55.1		53		62.		62.2
Heavy Trucks:	63		62.4		53.3		54		62.	-	63.1
Vehicle Noise:			69.3		66.1		61		70.		70.5
Centerline Distant	ce to Noise C	ontour (in feet	)								
				70 a	IBA .	65	dBA	6	i0 dBA	55	dBA
			Ldn:	10	0	2	16		465	1,	,001
		CI	VEL:	10	7	2	231		499	1.	,074

	FH\	VA-RD-77-108	HIGH	1 YAWH	NOISE P	REDICT	ION M	ODEL			
Road Nar	rio: Year 2016 me: Jamboree ent: North of Sa	,					Name: lumber:	8211	С		
SITE	SPECIFIC IN	IPUT DATA				N	IOISE	MODE	L INPUT	S	
Highway Data					Site Cor	nditions	(Hard:	= 10, Sc	oft = 15)		
Average Daily	/ Traffic (Adt):	45,200 vehicle	:S					Autos:	15		
Peak Hou	r Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak I	Hour Volume:	4,520 vehicle	:S		He	avy Tru	cks (3+	Axles):	15		
V	ehicle Speed:	45 mph		-	Vehicle	Miss					
Near/Far La	ane Distance:	76 feet		-		iviix nicleType	. 1	Dav	Evening	Night	Daily
Site Data					ven		Autos:	77.5%	-	9.6%	
					14	ledium T		84.8%		10.3%	1.84%
Barrier Type (0-V	arrier Height:	0.0 feet 0.0				Heavy T		86.5%		10.8%	0.74%
	vall, 1-Berm): hist. to Barrier:	0.0 100.0 feet								10.070	0.7 17
Centerline Dist		100.0 feet			Noise S	ource E	levatio	ns (in fe	eet)		
Barrier Distance		0.0 feet				Auto		2.000			
Observer Height		5.0 feet				m Truck		1.000			
	Pad Elevation:	0.0 feet			Hear	vy Truck	s: 8	3.006	Grade Ad	iustment	0.0
	nad Elevation:	0.0 feet			Lane Eq	uivalen	t Distai	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 92	2.547			
	Left View:	-90.0 degre	es		Mediu	m Truck	s: 92	2.504			
	Right View:	90.0 degre	es		Hear	vy Truck	s: 92	2.547			
FHWA Noise Mod	del Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres		Barrier Att	en Ber	m Atten
Autos		4.60		-4.1	•	-1.20		-4.87		000	0.00
Medium Trucks		-12.64		-4.1	•	-1.20		-4.97		000	0.000
Heavy Trucks		-16.59		-4.1	•	-1.20		-5.16	0.0	000	0.000
Unmitigated Nois											
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		VEL
Autos			65.8		64.1		58		66.0		67.3
Medium Trucks			60.0		53.6		52		60.		60.8
Heavy Trucks. Vehicle Noise			60.9 67.8		51.9 64.7		53 60		61.9		61.6
Centerline Distar	nce to Noise Co	ontour (in feet	t)								
					dBA		dBA	6	60 dBA		dBA
			Ldn:	_	0		73		372	-	01
		C	NEL:	8	16	1	85		399	8	59

	FHV	VA-RD-77-108	HIGHW	AY N	OISE P	REDICT	ION MC	DEL			
	o: Year 2016 \	Nith Project					Name:		С		
	e: Jamboree					Job N	lumber:	8211			
Road Segmer	nt: South of Sa	n Joaquin Hills									
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data				S	Site Cor	nditions	(Hard =	: 10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 4	3,100 vehicles						Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15		
Peak H	our Volume:	4,310 vehicles	;		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		V	/ehicle	Mix					
Near/Far Lai	ne Distance:	76 feet			Veh	icleType	)	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42
Bai	rier Height:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-W		0.0			-	Heavy T	rucks:	86.5%	2.7%	10.8%	0.749
Centerline Dis		100.0 feet		٨	loise S	ource E	levation	ıs (in fe	eet)		
Centerline Dist.	to Observer:	100.0 feet				Auto		.000	/		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck		.000			
Observer Height (	Above Pad):	5.0 feet				vy Truck		.006	Grade Ad	iustment	0.0
Pa	ad Elevation:	0.0 feet									
Ros	ad Elevation:	0.0 feet		L	.ane Eq	uivalen		_ •	feet)		
I	Road Grade:	0.0%				Auto		.547			
	Left View:	-90.0 degree	:S			m Truck		.504			
	Right View:	90.0 degree	:S		Heav	y Truck	s: 92	.547			
FHWA Noise Mode	el Calculations	S									
VehicleType	REMEL	Traffic Flow	Distar	псе	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	68.46	4.39		-4.11		-1.20		-4.87		000	0.00
Medium Trucks:	79.45	-12.84		-4.11		-1.20		-4.97		000	0.00
Heavy Trucks:	84.25	-16.80		-4.11		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise										_	
VehicleType	Leq Peak Hou			eq Ev	ening		Night		Ldn		NEL
Autos:	67.		85.6		63.9		57.	-	66.4		67
Medium Trucks:	61.		59.8		53.4		51.		60.3		60
Heavy Trucks: Vehicle Noise:	62.		60.7 67.6		51.7 64.5		52. 59.		61.3		61 68
Centerline Distance					31.0			-		-	
Constille Distant	110/30 00	(111 1661)		70 d	'BA	65	dBA	6	60 dBA	55	dBA
			dn:	78			67	•	360		76
			_an:	78	3	1	67		360	/	76

Tuesday, May 29, 2012

	FH\	WA-RD-77-108	HIGHW	AY NO	ISE PR	EDICTIO	N M	ODEL			
Scena	rio: Year 2016	With Project				Project N	lame:	NNCP	С		
Road Nan	ne: Jamboree					Job Nur	nber.	8211			
Road Segme	ent: South of Sa	anta Barbara									
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				Sit	te Cond	litions (F	lard	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	41,100 vehicles						Autos:	15		
Peak Hour	Percentage:	10%			Med	ium Truc	ks (2	Axles):	15		
Peak I	lour Volume:	4,110 vehicles			Hea	vy Truck	s (3+	Axles):	15		
Ve	ehicle Speed:	45 mph		Ve	ehicle M	liv					
Near/Far La	ne Distance:	76 feet		•		leType	П	Day	Evenina	Night	Dailv
Site Data							itos:	77.5%	12.9%	9.6%	97.42%
Ra	rrier Height:	0.0 feet			Me	dium Tru	cks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-V		0.0			Н	eavy Tru	cks:	86.5%	2.7%	10.8%	0.74%
	ist. to Barrier:	100.0 feet		Ne	nico So	urce Elev	ratio	ne (in f	not)		
Centerline Dist.	to Observer:	100.0 feet		740	)/SE 301	Autos:		2.000	et)		
Barrier Distance	to Observer:	0.0 feet			Modium	Trucks:		1.000			
Observer Height	(Above Pad):	5.0 feet				Trucks:		3.006	Grade Ad	liustment	. 0.0
P	ad Elevation:	0.0 feet								juotimom	. 0.0
	ad Elevation:	0.0 feet		La	ne Equ	ivalent E			feet)		
	Road Grade:	0.0%				Autos:	-	2.547			
	Left View:	-90.0 degree	S			Trucks:	-	2.504			
	Right View:	90.0 degree	S		Heavy	Trucks:	92	2.547			
FHWA Noise Mod											
VehicleType	REMEL	Traffic Flow	Distai		Finite F		Fres		Barrier Att		m Atten
Autos:		4.19		-4.11		-1.20		-4.87		000	0.000
Medium Trucks:		-13.05		-4.11		-1.20		-4.97		000	0.000
Heavy Trucks:		-17.01		-4.11		-1.20		-5.16	0.0	000	0.000
Unmitigated Nois											
VehicleType	Leq Peak Hou			eq Eve		Leq N	_		Ldn	-	NEL
Autos:			5.4		63.7		57		66.	_	66.8
Medium Trucks:			9.6		53.2		51		60.		60.4
Heavy Trucks:			0.5		51.5		52		61.		61.2
Vehicle Noise:		-	67.4		64.3		59	.6	68.	1	68.6
Centerline Distan	ce to Noise Co	ontour (in feet)									
				70 dB	BA .	65 dE		(	60 dBA		dBA
			.dn:	75		162			349		52
		C٨	IEL:	81		174	ŀ		374	8	06

	FHV	VA-RD-77-108	HIGH	WAY N	NOISE P	REDICTI	ON MO	DEL			
Road Nan	rio: Year 2016 \ ne: Jamboree nt: North of Co	,				Project Job N	Name: umber:		С		
SITE	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	: 10, S	oft = 15)		
Average Daily	Traffic (Adt): 3	8,700 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tru	icks (2	Axles):	15		
Peak F	lour Volume:	3,870 vehicle	s		He	eavy Truc	ks (3+ )	Axles):	15		
Ve	hicle Speed:	45 mph		H	Vehicle	Mix					
Near/Far La	ne Distance:	76 feet		H		icleType		Day	Evening	Night	Daily
Site Data						- /	Autos:	77.5%	12.9%	9.6%	97.42%
Ra	rrier Height:	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0				Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Di	st. to Barrier:	100.0 feet		h	Noise S	ource El	evation	s (in f	eet)		
Centerline Dist.	to Observer:	100.0 feet		F		Autos		000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks		000			
Observer Height	(Above Pad):	5.0 feet			Hear	vy Trucks	s: 8.	006	Grade Ad	iustmeni	t: 0.0
P	ad Elevation:	0.0 feet		L							
	ad Elevation:	0.0 feet		ļ.	Lane Eq				feet)		
	Road Grade:	0.0%				Autos		547			
	Left View:	-90.0 degre				m Trucks		504			
	Right View:	90.0 degre	es		Hear	y Trucks	s: 92.	.547			
FHWA Noise Mod	el Calculations	3									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresi	nel	Barrier Att	en Be	rm Atten
Autos:	68.46	3.93		-4.1	1	-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45	-13.31		-4.1	1	-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-17.27		-4.1	1	-1.20		-5.16	0.0	000	0.000
<b>Unmitigated Nois</b>	e Levels (with	out Topo and	barrie	r atter	nuation)						
VehicleType	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq	Night		Ldn	С	NEL
Autos:	67.	.1	65.2		63.4		57.4	4	66.0	)	66.6
Medium Trucks:			59.3		53.0		51.4		59.9	9	60.1
Heavy Trucks:			60.2		51.2		52.		60.8		60.9
Vehicle Noise:			67.2		64.0		59.	3	67.9	)	68.3
Centerline Distan	ce to Noise Co	ntour (in feet	t)	70	10.4		10.4	1			
			L		dBA		dBA	1 (	60 dBA		dBA
		_	Ldn:		2		56		335		722
		C	NEL:	7	7	16	67		360	7	775

	HWA	-RD-77-108	HIGHW <i>A</i>	AY NO	OISE PE	REDICT	ION MO	DEL			
Scenario: Year 20 Road Name: Santa C Road Segment: North of	ruz	,					Name: lumber:		С		
SITE SPECIFIC	INPL	JT DATA				N	IOISE I	MODE	L INPUT	S	
Highway Data				S	ite Con	ditions	(Hard =	: 10, Sc	oft = 15)		
Average Daily Traffic (Adt)	: 1,3	700 vehicles						Autos:	15		
Peak Hour Percentage		10%			Me	dium Tr	ucks (2	Axles):	15		
Peak Hour Volume		170 vehicles			He	avy Tru	cks (3+ )	Axles):	15		
Vehicle Speed	:	45 mph			ehicle i						
Near/Far Lane Distance	2	52 feet		V				D	F	A.C feet	D-#-
Site Data				_	ven	icleType	Autos:	Day 77.5%	Evening 12.9%	Night 9.6%	Daily 97.42%
				_	4.4	dium T		84.8%		10.3%	1.84%
Barrier Height		0.0 feet				leavv T		86.5%		10.3%	0.74%
Barrier Type (0-Wall, 1-Berm)		0.0			,	neavy I	ucks.	00.5%	2.170	10.0%	0.74%
Centerline Dist. to Barrier		00.0 feet		Ν	loise So	urce E	levation	s (in fe	eet)		
Centerline Dist. to Observe		00.0 feet				Auto	s: 2.	000			
Barrier Distance to Observe		0.0 feet			Mediui	n Truck	s: 4.	000			
Observer Height (Above Pad,		5.0 feet			Heav	y Truck	s: 8.	006	Grade Ad	justment	0.0
Pad Elevation		0.0 feet		,	ano Ea	uivalon	t Distan	co (in i	foot)		
Road Elevation Road Grade		0.0 feet 0.0%		-	ane Ly	Auto		607	eei)		
Road Grade Left View					Modiu	n Truck		566			
Right View		90.0 degree				y Truck		.608			
		90.0 degree	S		пеач						
						y maon	3. 30.	.000			
FHWA Noise Model Calculati											
FHWA Noise Model Calculati VehicleType REMEL	Ti	raffic Flow	Distan			Road	Fresi	nel	Barrier Att		m Atten
FHWA Noise Model Calculation VehicleType REMEL Autos: 68.	46	-9.65		-4.39		Road -1.20		nel -4.87	0.0	000	0.000
FHWA Noise Model Calculation VehicleType REMEL Autos: 68. Medium Trucks: 79.	46 45	-9.65 -26.88		-4.39 -4.39		Road -1.20 -1.20		nel -4.87 -4.97	0.0	000	0.000
FHWA Noise Model Calculative VehicleType REMEL Autos: 68. Medium Trucks: 79. Heavy Trucks: 84.	46 45 25	-9.65 -26.88 -30.84		-4.39 -4.39 -4.39		Road -1.20		nel -4.87	0.0	000	0.000
FHWA Noise Model Calculative VehicleType REMEL Autos: 68. Medium Trucks: 79. Heavy Trucks: 84. Unmitigated Noise Levels (w	46 45 25 ithou	-9.65 -26.88 -30.84 t Topo and I	parrier a	-4.39 -4.39 -4.39	ıation)	Road -1.20 -1.20 -1.20	Fresi	nel -4.87 -4.97	0.0 0.0 0.0	000 000 000	0.000 0.000 0.000
FHWA Noise Model Calculati Vehicle Type REMEL Autos: 68. Medium Trucks: 79. Heavy Trucks: 84. Unmitigated Noise Levels (W Vehicle Type Leq Peak I	46 45 25 <b>ithou</b> t	-9.65 -26.88 -30.84 t Topo and I Leq Day	barrier a	-4.39 -4.39 -4.39	uation) ening	Road -1.20 -1.20 -1.20	Fresi Night	-4.87 -4.97 -5.16	0.0 0.0 0.0	000 000 000	0.000 0.000 0.000
FHWA Noise Model Calculative NehicleType REMEL Autos: 68. Medium Trucks: 79. Heavy Trucks: 84. Unmitigated Noise Levels (w VehicleType Leq Peak I Autos:	46 45 25 <b>ithou</b> four 53.2	-9.65 -26.88 -30.84 t Topo and I Leq Day	barrier a	-4.39 -4.39 -4.39	uation) ening 49.6	Road -1.20 -1.20 -1.20	Fresi Night 43.	-4.87 -4.97 -5.16	0.0 0.0 0.0 <i>Ldn</i>	000 000 000 C	0.000 0.000 0.000 VEL 52.7
FHWA Noise Model Calculati VehicleType REMEL Autos: 68. Medium Trucks: 79. Heavy Trucks: 84. Unmitigated Noise Levels (w VehicleType Leq Peak I Autos: Medium Trucks:	46 45 25 <b>ithou</b> four 53.2 47.0	-9.65 -26.88 -30.84 t Topo and I Leq Day	barrier a Le 51.3	-4.39 -4.39 -4.39	uation) ening 49.6 39.1	Road -1.20 -1.20 -1.20	Fresi Night 43.3	-4.87 -4.97 -5.16	0.0 0.0 0.0 Ldn 52.1 46.0	000 000 000 000	0.000 0.000 0.000 VEL 52.7 46.3
FHWA Noise Model Calculative NehicleType REMEL Autos: 68. Medium Trucks: 79. Heavy Trucks: 84. Unmitigated Noise Levels (w VehicleType Leq Peak I Autos:	46 45 25 <b>ithou</b> four 53.2	-9.65 -26.88 -30.84 t Topo and I Leq Day	barrier a	-4.39 -4.39 -4.39	uation) ening 49.6	Road -1.20 -1.20 -1.20	Fresi Night 43.	nel -4.87 -4.97 -5.16	0.0 0.0 0.0 <i>Ldn</i>	000 000 000 000	0.000 0.000 0.000 NEL 52.7 46.3 47.1
FHWA Noise Model Calculati VehicleType REMEL Autos: 68. Medium Trucks: 79. Heavy Trucks: 84. Unmitigated Noise Levels (w VehicleType Leq Peak H Autos: Heavy Trucks: Heavy Trucks:	170 46 45 25 110 110 110 110 110 110 110 110 110 11	-9.65 -26.88 -30.84 <b>t Topo and I</b> Leq Day	51.3 15.5 16.4	-4.39 -4.39 -4.39	uation) ening 49.6 39.1 37.4	Road -1.20 -1.20 -1.20	Fresi Night 43.9 37.0	nel -4.87 -4.97 -5.16	0.0 0.0 0.0 Ldn 52.1 46.0 47.0	000 000 000 000	0.000 0.000 0.000 NEL 52.7 46.3 47.1
FHWA Noise Model Calculati VehicleType REMEL Autos: 68. Medium Trucks: 79. Heavy Trucks: Leq Peak H Autos: Heavy Trucks: Leq Peak H Autos: Heavy Trucks: Heavy Trucks: Vehicle Noise:	170 46 45 25 110 110 110 110 110 110 110 110 110 11	-9.65 -26.88 -30.84 <b>t Topo and I</b> Leq Day	barrier a Le 51.3 15.5 16.4	-4.39 -4.39 -4.39	49.6 39.1 37.4 50.2	Road -1.20 -1.20 -1.20 -1.20 Leq	Fresi Night 43.9 37.0	-4.87 -4.97 -5.16	0.0 0.0 0.0 Ldn 52.1 46.0 47.0	0000 0000 0000 Call	0.000 0.000 0.000
FHWA Noise Model Calculati VehicleType REMEL Autos: 68. Medium Trucks: 79. Heavy Trucks: Leq Peak H Autos: Heavy Trucks: Leq Peak H Autos: Heavy Trucks: Heavy Trucks: Vehicle Noise:	170 46 45 25 110 110 110 110 110 110 110 110 110 11	-9.65 -26.88 -30.84 t Topo and I Leq Day 5 2 2 5 our (in feet)	barrier a Le 51.3 15.5 16.4	-4.39 -4.39 -4.39 <b>ettenu</b>	49.6 39.1 37.4 50.2	Road -1.20 -1.20 -1.20 Leq	Fresi Night 43.3 37.1 38.1 45.1	-4.87 -4.97 -5.16	0.0 0.0 0.0 52.1 46.0 47.0	0000 0000 0000 Ci	0.000 0.000 0.000 VEL 52.7 46.3 47.1

	FH\	WA-RD-77-108	HIGHW	AY NOISE	PREDICT	ION MO	DEL			
Road Nam	io: Year 2016 e: Jamboree nt: South of Co	,				t Name: Number:		С		
SITE S	SPECIFIC IN	IPUT DATA				NOISE N	ИODE	L INPUT:	S	
Highway Data				Site C	onditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	12,900 vehicle	s				Autos:	15		
Peak Hour	Percentage:	10%			Medium T	rucks (2 A	Axles):	15		
Peak H	lour Volume:	1,290 vehicle	s		Heavy Tru	icks (3+ A	Axles):	15		
Ve	hicle Speed:	45 mph		Vehic	lo Miv					
Near/Far Lai	ne Distance:	76 feet			ehicleTyp	е	Day	Evening	Night	Daily
Site Data						Autos:	77.5%	12.9%	9.6%	97.429
Bai	rrier Height:	0.0 feet			Medium 1	rucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-W		0.0			Heavy	rucks:	86.5%	2.7%	10.8%	0.749
Centerline Dis		100.0 feet		Noise	Source E	levation	s (in fe	eet)		
Centerline Dist.		100.0 feet			Auto	os: 2.0	000			
Barrier Distance		0.0 feet		Med	dium Truci	ks: 4.0	000			
Observer Height (		5.0 feet		He	avy Truci	ks: 8.0	006	Grade Ad	iustment	: 0.0
	ad Elevation:	0.0 feet					,,			
	ad Elevation:	0.0 feet		Lane	Equivaler			reet)		
,	Road Grade:	0.0%			Auto		547			
	Left View:	-90.0 degre			dium Truci		504 547			
	Right View:	90.0 degre	es	776	eavy Truci	18. 92.	347			
FHWA Noise Mode										
VehicleType	REMEL	Traffic Flow	Distar		ite Road	Fresn		Barrier Att		m Atten
Autos:	68.46	-0.85		-4.11	-1.20		-4.87		000	0.00
Medium Trucks:	79.45	-18.08		-4.11	-1.20		-4.97		000	0.00
Heavy Trucks:	84.25	-22.04		-4.11	-1.20		-5.16	0.0	000	0.00
Unmitigated Noise VehicleType	Leg Peak Hou			ttenuation eq Evenino		Night		Ldn		NEL
Autos:	Ley reak not		60.4	eq ⊑veriing 58		1vigrit 52.6	1	61.2		61.
Medium Trucks:	56		54.5		3.2	46.6		55.1	-	55.
Heavy Trucks:	56		55.5		5.4	47.7		56.0		56.
Vehicle Noise:	64		62.4		9.2	54.6		63.1		63.
	na ta Naisa Ca	ontour (in feet	)							
Centerline Distance							_		_	
Centerline Distant	e to Moise O	(		70 dBA		dBA	6	60 dBA		dBA
Centerline Distanc	se to Noise of	,	Ldn: NEL:	70 dBA 35 37		75 80	6	161 173	3	dBA 347 372

Tuesday, May 29, 2012

	FHV	VA-RD-77-108 F	HIGHWAY	NOISE P	REDICTIO	N MODEL		
Road Nam	io: Year 2016 ne: Santa Cruz nt: Souh of Sa					lame: NNCI mber: 8211	PC	
SITE	SPECIFIC IN	IPUT DATA			NC	ISE MOD	EL INPUTS	
Highway Data				Site Cor	nditions (F	lard = 10, S	oft = 15)	
Average Daily	Traffic (Adt):	12,700 vehicles				Autos	: 15	
Peak Hour	Percentage:	10%		Me	edium Truc	ks (2 Axles)	: 15	
Peak H	lour Volume:	1,270 vehicles		He	avy Truck	s (3+ Axles)	: 15	
Ve	hicle Speed:	45 mph		Vehicle	Miv			
Near/Far La	ne Distance:	52 feet			icleType	Dav	Evening Ni	ight Daily
Site Data						itos: 77.59	-	9.6% 97.42%
Ra	rrier Height:	0.0 feet		М	edium Tru	cks: 84.89	6 4.9% 1	0.3% 1.84%
Barrier Type (0-W		0.0			Heavy Tru	cks: 86.59	6 2.7% 1	0.8% 0.74%
Centerline Di	st. to Barrier:	100.0 feet		Noise S	ource Elev	vations (in	feet)	
Centerline Dist.	to Observer:	100.0 feet			Autos:		,	
Barrier Distance	to Observer:	0.0 feet		Mediu	m Trucks:			
Observer Height (	(Above Pad):	5.0 feet			vy Trucks:	8.006	Grade Adjust	ment: 0.0
Pa	ad Elevation:	0.0 feet			•			
Roa	ad Elevation:	0.0 feet		Lane Eq		Distance (in	feet)	
	Road Grade:	0.0%			Autos:			
	Left View:	-90.0 degrees	3		m Trucks:			
	Right View:	90.0 degrees	3	Hear	vy Trucks:	96.608		
FHWA Noise Mod	el Calculation	s						
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.91	-4.	39	-1.20	-4.87	0.000	0.000
Medium Trucks:	79.45	-18.15	-4.	39	-1.20	-4.97	0.000	0.000
Heavy Trucks:	84.25	-22.11	-4.	39	-1.20	-5.16	0.000	0.000
Unmitigated Noise	e Levels (with	out Topo and b	arrier atte	nuation)				
VehicleType	Leq Peak Hou	ır Leq Day	Leq	Evening	Leq Ni	ight	Ldn	CNEL
Autos:	62	.0 6	0.1	58.3		52.2	60.9	61.5
Medium Trucks:	55	.7 5	4.2	47.8		46.3	54.8	55.0
Heavy Trucks:	56		5.1	46.1		47.3	55.7	55.8
Vehicle Noise:	63	.8 6	2.0	58.9		54.2	62.8	63.2
Centerline Distan	ce to Noise Co	ontour (in feet)						
				) dBA	65 dE	BA	60 dBA	55 dBA
		_	dn:	33 71			153	329
		CN	EL:	35	76		164 353	

Tuesday, May 29, 2012 Tuesday, May 29, 2012

	FH\	WA-RD-77-108	HIGH	IWAY N	OISE P	REDICT	ION M	DDEL			
Road Nar	rio: Year 2016 ne: Santa Cruz ent: North of Sa	·				.,	t Name: lumber:		С		
SITE	SPECIFIC IN	IPUT DATA				1	VOISE	MODE	L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	12,400 vehicle	s					Autos:	15		
Peak Hou	Percentage:	10%			Me	edium Tı	rucks (2	Axles):	15		
Peak I	Hour Volume:	1,240 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Ve	ehicle Speed:	45 mph		-	/ehicle	Mix					
Near/Far La	ane Distance:	52 feet		F	Ver	icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
Ba	rrier Height:	0.0 feet			M	ledium 7	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-V		0.0				Heavy 7	rucks:	86.5%	2.7%	10.8%	0.74%
	ist. to Barrier:	100.0 feet		1	Voise S	ource E	levatio	ns (in fe	eet)		
Centerline Dist.		100.0 feet				Auto	s: 2	.000			
Barrier Distance		0.0 feet			Mediu	m Truck	rs: 4	.000			
Observer Height	. ,	5.0 feet			Hea	vy Truck	rs: 8	.006	Grade Ad	justmen	t: 0.0
-	Pad Elevation:	0.0 feet		٠.			4 Di-4-	/!	e4)		
Ro	ad Elevation:	0.0 feet		-	ane Eq	uivalen Auto		ice (in 1	reet)		
	Road Grade:	0.0%				m Truck		5.566			
	Left View:	-90.0 degre				m Truck vy Truck		3.608			
	Right View:	90.0 degre	es		пеа	vy Truck	is. 9t	0.000			
FHWA Noise Mod					,						
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fres		Barrier Att		rm Atten
Autos:		-1.02		-4.39		-1.20		-4.87		000	0.000
Medium Trucks:				-4.39		-1.20		-4.97		000	0.000
Heavy Trucks:				-4.39		-1.20		-5.16	0.0	000	0.000
Unmitigated Nois								1			
VehicleType	Leq Peak Hou			Leq E		,	Night	<u>.</u>	Ldn		NEL
Autos: Medium Trucks:			60.0 54.1		58.2 47.7		52 46		60.8 54.0	-	61.4 54.9
			55.0		47.7		46	_	55.0	-	54.9 55.7
Heavy Trucks: Vehicle Noise:			61.9		58.8		54		62.		63.1
Centerline Distan					23.0				JE.		
		(111 1000		70 c	IBA	65	dBA	6	60 dBA	55	dBA
			Ldn:	32	2		70		150	-	324
		C	NEL:	3	5		75		161	:	347

Average Daily Traffic (Adt): 9,500 vehicles   Peak Hour Percentage: 10%   Peak Hour Percentage: 950 vehicles   Vehicle Speed: 45 mph Near/Far Lane Distance: 52 feet   Vehicle Type   Day   Evening   Night   Daily   Daily   Evening   Night   Daily   Daily   Daily   Evening   Night   Daily   Peak Hour Power   Noise Source Elevations (In feet)		FH\	WA-RD-77-108	HIGI	HWAY	NOISE P	REDICT	ION MC	DDEL			
Average Daily Traffic (Adt): 9,500 vehicles   Peak Hour Percentage: 10%   Autos: 15   Medium Trucks (2 Avtes): 15   Wehicle Speed: 45 mph   Near/Far Lane Distance: 52 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Night	Road Nar	ne: Santa Cruz								С		
Average Daily Traffic (Adt): 9,500 vehicles Peak Hour Potentage: 10% Peak Hour Potentage: 950 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 52 feet    Vehicle Mix   Vehicle Type   Day   Evening   Night   Daily	SITE	SPECIFIC IN	IPUT DATA				Ν	IOISE	MODE	L INPUT	S	
Peak Hour Percentage:	Highway Data					Site Cor	nditions	(Hard =	= 10, S	oft = 15)		
Peak Hour Volume: Vehicle Speed: 45 mph   Near/Far Lane Distance: 52 feet   Seet   Wehicle Mix   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Near/Far Lane Distance: 52 feet   Wehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily	Average Daily	Traffic (Adt):	9,500 vehicle	es.					Autos:	15		
Vehicle Speed:   45 mph   52 feet     Vehicle Mix   VehicleType   Day   Evening   Night   Daily   Site Data   Autos:   77.5%   12.9%   9.6% 97.4%   10.3%   18.4%   1.3%	Peak Hou	r Percentage:	10%			Me	dium Tri	icks (2	Axles):	15		
Near/Far Lane Distance:   52 feet   Near/Far Lane   Near/Far	Peak	Hour Volume:	950 vehicle	s		He	eavy Truc	cks (3+	Axles):	15		
Near/Far Lane Distance:   52 feet   VehicleType   Day   Evening   Night   Daily	V	ehicle Speed:	45 mph		-	Vohiclo	Miv					
Barrier Height:   0.0   feet   Medium Trucks:   84.8%   4.9%   10.3%   1.84%	Near/Far L	ane Distance:	52 feet						Dav	Evenina	Niaht	Daily
Barrier Type (0-Well, 1-Berm): 0.0 feet   Heavy Trucks: 86.5%   2.7%   10.8%   0.74%	Site Data											,
	D.	arrior Hoight:	0.0 foot			М	edium Ti	rucks:	84.8%	4.9%	10.3%	1.84%
Noise Source Elevations (In feet)   Noise Source Elevations (In feet)							Heavy Ti	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Observer: Barrier Distance to Observer												
Barrier Distance to Observer:						Noise S				eet)		
Diserver Height (Above Pad):   5.0 feet   Heavy Trucks:   8.006   Grade Adjustment: 0.0	Barrier Distance	e to Observer:										
Pad Elevation:	Observer Height	(Above Pad):	5.0 feet							0		
Road Grade:		. ,	0.0 feet			Hear	y Truck	s: 8	.006	Grade Adj	ustmeni	0.0
Left View:	Ro	oad Elevation:	0.0 feet		ı	Lane Eq	uivalen	Distan	nce (in	feet)		
Fight View: 90.0 degrees		Road Grade:	0.0%		ĺ		Auto	s: 96	.607			
		Left View:	-90.0 degre	es		Mediu	m Truck	s: 96	.566			
VehicleType		Right View:	90.0 degre	es		Hear	y Truck	s: 96	.608			
Autos: 68.46	FHWA Noise Mod	del Calculation	s									
Medium Trucks: 79.45	VehicleType	REMEL	Traffic Flow	Di	stance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Heavy Trucks: 84.25												0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)   VehicleType   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNEL   Autos: 60.7												0.000
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         60.7         58.8         57.0         51.0         59.6         60.0           Medium Trucks:         54.4         52.9         46.6         45.0         53.5         53.           Heavy Trucks:         55.3         53.9         44.8         46.1         54.4         54.4           Vehicle Noise:         62.5         60.8         57.6         53.0         61.5         62.7           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         27         58         126         271	Heavy Trucks	: 84.25	-23.37		-4.3	39	-1.20		-5.16	0.0	000	0.000
Autos:         60.7         58.8         57.0         51.0         59.6         60.           Medium Trucks:         54.4         52.9         46.6         45.0         53.5         53.           Heavy Trucks:         55.3         53.9         44.8         46.1         54.4         54.           Vehicle Noise:         62.5         60.8         57.6         53.0         61.5         62.           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         27         58         126         271	Unmitigated Nois	se Levels (with	out Topo and	barri	er atte	nuation)					,	
Medium Trucks:         54.4         52.9         46.6         45.0         53.5         53.           Heavy Trucks:         55.3         53.9         44.8         46.1         54.4         54.           Vehicle Noise:         62.5         60.8         57.6         53.0         61.5         62.           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         27         58         126         271	,,	,			Leq E		,					
Heavy Trucks:									-			60.2
Vehicle Noise:         62.5         60.8         57.6         53.0         61.5         62.5           Centerline Distance to Noise Contour (in feet)           70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         27         58         126         271									-			
Centerline Distance to Noise Contour (in feet)           70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         27         58         126         271									-			54.6
70 dBA 65 dBA 60 dBA 55 dBA Ldn: 27 58 126 271						37.0		JJ.	U	01.0	,	02.0
Ldn: 27 58 126 271	Centerline Distar	nce to Noise Co	ontour (in feet	t)	70	dBA	65	dBA		50 dBA	55	idBA
				Ldn:					<u> </u>			
			C	NEL:	-	29	6	3		135	2	291

	FHW	A-RD-77-108	HIGHW	AY NO	DISE P	REDICT	ION MC	DEL			
	o: Year 2016 V	/ith Project					Name:		С		
	e: Santa Cruz					Job N	lumber:	8211			
Road Segmen	t: South of Sar	n Clemente									
	SPECIFIC INF	PUT DATA							L INPUT	S	
Highway Data				S	ite Cor	nditions	(Hard =	: 10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 1	0,000 vehicles	3					Autos:	15		
Peak Hour	Percentage:	10%				dium Tr		,			
Peak H	our Volume:	1,000 vehicles	3		He	avy Tru	cks (3+	Axles):	15		
Vel	nicle Speed:	45 mph		V	ehicle	Mix					
Near/Far Lar	ne Distance:	52 feet			Veh	icleType	)	Day	Evening	Night	Daily
Site Data						,	Autos:	77.5%	12.9%	9.6%	97.42
Bar	rier Height:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.84
Barrier Type (0-Wa		0.0			1	Heavy T	rucks:	86.5%	2.7%	10.8%	0.74
Centerline Dis	t. to Barrier:	100.0 feet		N	oise S	ource E	levation	s (in f	eet)		
Centerline Dist. t	o Observer:	100.0 feet		-		Auto		000	,		
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Truck		000			
Observer Height (	Above Pad):	5.0 feet				vy Truck		006	Grade Ad	liustmen	: 0.0
Pa	d Elevation:	0.0 feet								,	
Roa	d Elevation:	0.0 feet		Li	ane Eq	uivalen			feet)		
F	Road Grade:	0.0%				Auto		.607			
	Left View:	-90.0 degree				m Truck		.566			
	Right View:	90.0 degree	es		Heav	y Truck	s: 96	.608			
FHWA Noise Mode	l Calculations										
VehicleType	REMEL	Traffic Flow	Distar	псе	Finite	Road	Fres	nel	Barrier Att	en Be	rm Attei
Autos:	68.46	-1.95		-4.39		-1.20		-4.87	0.0	000	0.0
Medium Trucks:	79.45	-19.19		-4.39		-1.20		-4.97	0.0	000	0.0
Heavy Trucks:	84.25	-23.15		-4.39		-1.20		-5.16	0.0	000	0.0
Unmitigated Noise										1	
,,	Leq Peak Hour			eq Eve			Night		Ldn		NEL
Autos:	60.9		59.0		57.3		51.	_	59.	-	60
Medium Trucks:	54.7		53.2		46.8		45.		53.		53
Heavy Trucks: Vehicle Noise:	55.8 62.1		54.1 51.0		45.1 57.9		46. 53.	-	54.1 61.1		54 62
Centerline Distanc					31.9		JJ.	_	01.	'	02
	e to worse con	nour (in reet)	<u> </u>	70 /		0.5	dBA		60 dBA		-10.4
ocincinne Distanc				70 dE	3A	65			ou aba	00	dBA
oemerime Distanc			Ldn:	70 aE	3A		30 30		130		281

Tuesday, May 29, 2012

	FH\	WA-RD-77-108	HIGH	WAY N	OISE PF	REDICTIC	N M	ODEL			
Scena	rio: Year 2016	With Project				Project N	lame	: NNCP	С		
	ne: Santa Cruz					Job Nu	mber	: 8211			
Road Segme	ent: South of No	ewport CTR									
SITE	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				S	ite Con	ditions (l	Hard	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	4,600 vehicles	S					Autos:	15		
Peak Hou	r Percentage:	10%			Me	dium Truc	ks (2	Axles):	15		
Peak I	Hour Volume:	460 vehicles	S		He	avy Truck	s (3+	- Axles):	15		
Ve	ehicle Speed:	45 mph		ν	ehicle l	Vix					
Near/Far La	ane Distance:	52 feet		F.		icleType	T	Dav	Evenina	Night	Dailv
Site Data							ıtos:	77.5%	12.9%	9.6%	97.42%
Ra	rrier Height:	0.0 feet			Me	edium Tru	cks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-V		0.0			F	leavy Tru	cks:	86.5%	2.7%	10.8%	0.74%
	ist. to Barrier:	100.0 feet			loico Sa	urce Ele	vatio	ne (in f	not)		
Centerline Dist.	to Observer:	100.0 feet		,	ioise sc	Autos:		2.000	et)		
Barrier Distance	to Observer:	0.0 feet			Modium	n Trucks:		4.000			
Observer Height	(Above Pad):	5.0 feet				y Trucks:		3.006	Grade Ad	liustment	0.0
	Pad Elevation:	0.0 feet								,	
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalent l			feet)		
	Road Grade:	0.0%				Autos:	-	6.607			
	Left View:	-90.0 degree				n Trucks:	-	6.566			
	Right View:	90.0 degree	es		Heav	y Trucks:	9	6.608			
FHWA Noise Mod		-									
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite		Fre		Barrier Att		m Atten
Autos.		-5.32		-4.39		-1.20		-4.87		000	0.000
Medium Trucks.		-22.56		-4.39 -4.39		-1.20 -1.20		-4.97 -5.16		000	0.000
Heavy Trucks.		-26.52				-1.20		-5.16	0.0	000	0.000
Unmitigated Nois											
VehicleType	Leq Peak Hou			Leq Ev	_	Leq N	_		Ldn	-	VEL
Autos.			55.6		53.9		47		56.4		57.1
Medium Trucks.			49.8		43.4		41		50.		50.6
Heavy Trucks. Vehicle Noise			50.7 57.6		41.7		42		51.3		51.4
					54.5		48	1.8	58.	3	58.8
Centerline Distan	ice to Noise Co	ontour (in feet	)	70 d	DA .	6E -	D.A	-	0 dBA		dBA
			Ldn:	70 a		65 di		0	78		67
			VFI:	18		39			83		79

FH	WA-RD-77-108	HIGH	IWAY N	OISE P	REDICT	ION M	ODEL			
Scenario: Year 2016 Road Name: Newport C Road Segment: West of N	TR					t Name. Jumber.	: NNCP : 8211	С		
SITE SPECIFIC II	NPUT DATA				1	VOISE	MODE	L INPUT	S	
Highway Data			5	Site Cor	nditions	(Hard	= 10, Sc	oft = 15)		
Average Daily Traffic (Adt):	7,300 vehicle	S					Autos:	15		
Peak Hour Percentage:	10%			Me	edium Tı	ucks (2	Axles):	15		
Peak Hour Volume:	730 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Vehicle Speed:	45 mph		1	/ehicle	Mix					
Near/Far Lane Distance:	76 feet		F		icleTyp	9	Day	Evening	Night	Daily
Site Data						Autos:	77.5%	12.9%	9.6%	97.42%
Barrier Height:	0.0 feet			M	ledium 7	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0				Heavy 7	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet		,	Voise S	ource E	levatio	ns (in fe	eet)		
Centerline Dist. to Observer:	100.0 feet				Auto		2.000	,		
Barrier Distance to Observer:	0.0 feet			Mediu	m Truck	(S: 4	1.000			
Observer Height (Above Pad):	5.0 feet			Hea	vy Truck	rs: 8	3.006	Grade Ad	ljustmen	t: 0.0
Pad Elevation:	0.0 feet		L.		·				-	
Road Elevation:	0.0 feet		L	ane Eq			nce (in	feet)		
Road Grade:	0.0%				Auto		2.547			
Left View:	-90.0 degre				m Truck		2.504			
Right View:	90.0 degre	es		Hea	vy Truck	is: 92	2.547			
FHWA Noise Model Calculation										
VehicleType REMEL	Traffic Flow	Dis	stance		Road	Fres		Barrier At	ten Be	rm Atten
Autos: 68.46			-4.11		-1.20		-4.87		000	0.000
Medium Trucks: 79.45			-4.11		-1.20		-4.97		000	0.000
Heavy Trucks: 84.25	-24.51		-4.11	l	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise Levels (with									1	
VehicleType Leq Peak Ho			Leq Ev		,	Night		Ldn		NEL
		57.9		56.2		50		58.		59.3
		52.1		45.7		44	-	52.	-	52.9
		53.0 59.9		44.0 56.8		45 52		53. 60.		53.7 61.1
Centerline Distance to Noise C				30.0		52	. 1	00.		01.1
Centerline Distance to Noise C	ontour (III feet	,	70 a	IBA	65	dBA	6	60 dBA	55	i dBA
		Ldn:	24	4		51	<u> </u>	110	1 :	238
	C	NEL:	25	5		55		118	:	255

Tuesday,	Many	20	2012

	FHV	VA-RD-77-108	HIGI	A YAWH	IOISE PI	REDICT	ION MC	DDEL			
Road Nam	no: Year 2016 ne: Newport Ci nt: North of Sa	TR ,					Name: umber:	NNCP 8211	С		
SITE	SPECIFIC IN	PUT DATA				N	IOISE	MODE	L INPUT	S	
Highway Data					Site Con	ditions	(Hard =	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	6,900 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ıcks (2	Axles):	15		
Peak H	lour Volume:	690 vehicle	s		He	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		-	Vehicle	Miv					
Near/Far La	ne Distance:	76 feet		H		icleType	.	Day	Evening	Night	Daily
Site Data					*011		Autos:	77.5%	-	9.6%	,
Pa	rrier Height:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0			1	Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Di		100.0 feet			Noise S	ource E	evatio	ns (in fe	eet)		
Centerline Dist.		100.0 feet		Ī		Auto	s: 2	.000			
Barrier Distance		0.0 feet			Mediu	m Truck	s: 4	.000			
Observer Height		5.0 feet			Heav	y Truck	s: 8	.006	Grade Adj	iustment	0.0
	ad Elevation:	0.0 feet				•					
	ad Elevation:	0.0 feet		H.	Lane Eq				eet)		
	Road Grade:	0.0%				Auto		.547			
	Left View:	-90.0 degre				m Truck		.504			
	Right View:	90.0 degre	es		Heat	y Truck	s: 92	.547			
FHWA Noise Mod											
VehicleType	REMEL	Traffic Flow	Di	stance		Road	Fres		Barrier Att		m Atten
Autos:		-3.56		-4.1		-1.20		-4.87	0.0		0.00
Medium Trucks:		-20.80		-4.1		-1.20		-4.97		000	0.000
Heavy Trucks:		-24.76		-4.1	-	-1.20		-5.16	0.0	000	0.000
Unmitigated Nois	•	-						1			
VehicleType Autos:	Leq Peak Hou		57.7	Leq E	vening 55.9		Night 49.	0	Ldn 58.5		NEL 59.1
Medium Trucks:			51.8		55.9 45.5		49.	-	58.5 52.4		52.0
Heavy Trucks:			52.8		43.7		45.	-	53.3		53.5
Vehicle Noise:			59.7		56.5		51.	-	60.4		60.8
Centerline Distan	ce to Noise Co	ntour (in feet	)								
				70 0	dBA	65	dBA	6	i0 dBA	55	dBA
			Ldn:	2	3	4	9		106	2	29
		0	NFI:	2	5		3		114		45

	FHV	WA-RD-77-108	HIGH	WAY N	IOISE P	REDICT	ION M	ODEL			
	o: Year 2016 'e: Newport C'et: South of Sa	TR				.,	Name: lumber:	NNCP 8211	С		
SITE S	SPECIFIC IN	IPUT DATA				1	NOISE	MODE	L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	7,900 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	our Volume:	790 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Vel	nicle Speed:	45 mph		Η,	Vehicle	Miv					
Near/Far Lar	ne Distance:	76 feet		F		icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42
Par	rier Heiaht:	0.0 feet			M	ledium T	rucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-Wi		0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.749
Centerline Dis	t. to Barrier:	100.0 feet		1	Noise S	ource E	levatio	ns (in fe	eet)		
Centerline Dist. t	o Observer:	100.0 feet				Auto	s: 2	2.000	,		
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Truck	s: 4	1.000			
Observer Height (A	Above Pad):	5.0 feet			Heat	vy Truck	s: 8	3.006	Grade Ad	iustment	0.0
	d Elevation:	0.0 feet		L		•					
	d Elevation:	0.0 feet		1	Lane Eq				feet)		
F	Road Grade:	0.0%				Auto		2.547			
	Left View:	-90.0 degre				m Truck		2.504			
	Right View:	90.0 degre	es		Hea	vy Truck	s: 92	2.547			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dist	ance		Road	Fres		Barrier Att	en Ber	m Atten
Autos:	68.46	-2.97		-4.11		-1.20		-4.87		000	0.00
Medium Trucks:	79.45	-20.21		-4.11		-1.20		-4.97		000	0.00
Heavy Trucks:	84.25	-24.17		-4.11	1	-1.20		-5.16	0.0	000	0.00
Unmitigated Noise							N.Clet	1	Late		
VehicleType Autos:	Leq Peak Hou		58.3	Leq E	vening 56.5		Night 50	E	Ldn 59.1		NEL 59
Medium Trucks:	53	-	58.3 52.4		36.3 46.1		50 44		53.0		59
Heavy Trucks:	54		53.3		44.3		45		53.9	-	53 54
Vehicle Noise:	62		60.3		57.1		52		61.0		61
Centerline Distanc	e to Noise Co	ontour (in feet	)								
				70 c	BA.	65	dBA	6	60 dBA	55	dBA
			Ldn:	2	5		54		116	2	:50
			VFI:	2			58		125		69

FH	WA-RD-77-108	HIGHWAY	NOISE P	REDICTIO	ON MODEL		
Scenario: Year 2016	With Project			Project I	Vame: NNC	PC	
Road Name: Newport C	TR			Job Nu	mber: 8211		
Road Segment: South of S	anta Cruz						
SITE SPECIFIC II	NPUT DATA					EL INPUTS	3
Highway Data			Site Con	ditions (	Hard = 10,	Soft = 15)	
Average Daily Traffic (Adt):	6,300 vehicles	3			Auto	s: 15	
Peak Hour Percentage:	10%		Me	dium True	cks (2 Axles	): 15	
Peak Hour Volume:	630 vehicles	3	He	avy Truck	ks (3+ Axles	): 15	
Vehicle Speed:	45 mph		Vehicle	Miv			
Near/Far Lane Distance:	76 feet			icleType	Day	Evening	Night Daily
Site Data				A	utos: 77.5		9.6% 97.42%
Barrier Height:	0.0 feet		M	edium Tru	icks: 84.8	% 4.9%	10.3% 1.84%
Barrier Type (0-Wall, 1-Berm):	0.0		ı	Heavy Tru	icks: 86.5	% 2.7%	10.8% 0.74%
Centerline Dist. to Barrier:	100.0 feet		Noise So	ource Ele	vations (in	feet)	
Centerline Dist. to Observer:	100.0 feet			Autos		1001)	
Barrier Distance to Observer:	0.0 feet		Modius	m Trucks.			
Observer Height (Above Pad):	5.0 feet			v Trucks:		Grade Adi	ustment: 0.0
Pad Elevation:	0.0 feet						
Road Elevation:	0.0 feet		Lane Eq	uivalent i	Distance (ii	ı feet)	
Road Grade:	0.0%			Autos:	92.547		
Left View:	-90.0 degree	es	Mediu	m Trucks.	92.504		
Right View:	90.0 degree	es	Heav	y Trucks:	92.547		
FHWA Noise Model Calculation	ıs						
VehicleType REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier Atte	en Berm Atten
Autos: 68.46	-3.96	-4.	11	-1.20	-4.8	7 0.0	0.000
Medium Trucks: 79.45	-21.20	-4.	11	-1.20	-4.9	7 0.0	0.000
Heavy Trucks: 84.25	-25.15	-4.	11	-1.20	-5.1	6 0.0	0.000
Unmitigated Noise Levels (with	out Topo and	barrier atte	enuation)				
VehicleType Leq Peak Ho			Evening	Leq N	•	Ldn	CNEL
		57.3	55.5		49.5	58.1	
		51.4	45.1		43.5	52.0	
,		52.4	43.3		44.6	52.9	
Vehicle Noise: 6	1.0	59.3	56.1		51.5	60.0	60.5
Centerline Distance to Noise C	ontour (in feet)				,		
		70	) dBA	65 d	BA	60 dBA	55 dBA
		Ldn: IFI :	22	46 50		100 107	215 231

	FHW	/A-RD-77-108	HIGH	IWAY I	NOISE P	REDICTI	ON MO	DEL			
Road Nam	io: Year 2016 Voie: Newport CT	R ,				Project Job Ni	Name: umber:		С		
SITE	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	10, S	oft = 15)		
Average Daily	Traffic (Adt):	5,800 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tru	icks (2	Axles).	15		
Peak H	lour Volume:	580 vehicle	S		He	eavy Truc	ks (3+ )	Axles).	15		
Ve	hicle Speed:	45 mph		H	Vehicle	Mix					
Near/Far La	ne Distance:	76 feet		ŀ		icleType		Day	Evening	Night	Daily
Site Data						A	lutos:	77.5%	12.9%	9.6%	97.42%
Ba	rrier Height:	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0				Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Di	st. to Barrier:	100.0 feet		ŀ	Noise S	ource El	evation	s (in f	eet)		
Centerline Dist.	to Observer:	100.0 feet		ŀ		Autos		000	,		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Trucks		000			
Observer Height	(Above Pad):	5.0 feet			Hear	vy Trucks	s: 8.	006	Grade Ad	iustmen	t: 0.0
P	ad Elevation:	0.0 feet		Ļ							
	ad Elevation:	0.0 feet		-	Lane Eq	uivalent			feet)		
	Road Grade:	0.0%				Autos		547			
	Left View:	-90.0 degre				m Trucks		504			
	Right View:	90.0 degre	es		Hear	y Trucks	s: 92.	.547			
FHWA Noise Mod	el Calculations	3		-							
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresi	nel	Barrier Att	en Be	rm Atten
Autos:	68.46	-4.32		-4.1	1	-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45	-21.56		-4.1	1	-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-25.51		-4.1	1	-1.20		-5.16	0.0	000	0.000
<b>Unmitigated Nois</b>	e Levels (with	out Topo and	barrie	er atter	nuation)						
VehicleType	Leq Peak Hou	r Leq Day	/	Leq E	vening	Leq i	Night		Ldn		NEL
Autos:	58.	8	56.9		55.2		49.	1	57.7	,	58.3
Medium Trucks:	52.	6	51.1		44.7		43.2	2	51.6	6	51.9
Heavy Trucks:	53.		52.0		43.0		44.2		52.6		52.7
Vehicle Noise:	60.	-	58.9		55.8		51.	1	59.6	3	60.1
Centerline Distan	ce to Noise Co	ntour (in feet	)	-	10.4		10.4				
			L		dBA		dBA		60 dBA		dBA
		_	Ldn:		20	4	•		95		204
		Ci	NEL:	2	22	4	1		101		219

Average Daily Traffic (Adt): 10,000 vehicles Peak Hour Potrecentage: 10% Peak Hour Volume: 1,000 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 76 feet    Vehicle Type   Day   Evening   Night   Internation		FHW	VA-RD-77-108	HIGHW	AY NO	DISE PI	REDICTI	ON MC	DDEL			
Average Daily Traffic (Adt): 10,000 vehicles   Peak Hour Percentage: 10%   Autos: 15   Medium Trucks (2 Axles): 15	Road Nam	e: Newport CT	R ,							C		
Average Daily Traffic (Adt): 10,000 vehicles Peak Hour Percentage: 1,000 vehicles Peak Hour Percentage: 1,000 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 76 feet    Vehicle Type   Day   Evening   Night   I	SITE	SPECIFIC IN	PUT DATA				N	OISE	MODE	L INPUTS	3	
Peak Hour Volume: 1,000 vehicles   Heavy Trucks (2 Axles): 15	Highway Data				S	ite Con	ditions	(Hard =	= 10, S	oft = 15)		
Peak Hour Volume: 1,000 vehicles Vehicle Speed: 45 mph   Near/Far Lane Distance: 76 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   1	Average Daily	Traffic (Adt): 1	0,000 vehicles	8					Autos:	15		
Vehicle Speed:   45 mph   76 feet	Peak Hour	Percentage:	10%			Me	dium Tru	ıcks (2	Axles).	15		
Near/Far Lane Distance: 76 feet   VehicleType   Day   Evening   Night   VehicleType   Day   Evening   Night   VehicleType   Day   Evening   Night   VehicleType   Autos: 77.5%   12.9%   9.6%	Peak H	lour Volume:	1,000 vehicles	3		He	avy Truc	ks (3+	Axles).	15		
Near/Far Lane Distance: 76   feet     VehicleType   Day   Evening   Night   I	Ve	hicle Speed:	45 mph		V	ahicla	Miv					
Autos: 77.5%   12.9%   9.6%   9	Near/Far La	ne Distance:	76 feet		ľ				Dav	Evenina	Niaht	Daily
Barrier Type (0-Wall, 1-Berm): 0.0   leet	Site Data									Ü		
Barrier Type (0-Wall, 1-Berm): 0.0   Centerline Dist. to Darrier: 100.0 feet   Centerline Dist. to Darrier: 100.0 feet   Centerline Dist. to Observer: 100.0 feet   O.0 feet   Centerline Dist. to Observer: 100.0 feet   O.0 feet	Pa	rrior Hoight:	0.0 foot			М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Noise Source Elevations (in feet)						1	leavy Tr	ucks:	86.5%	6 2.7%	10.8%	0.74%
Centerline Dist. to Observer: 100.0   feet   Sarrier Distance to Observer: 0.0   feet   Sarrier Distance   Sar					L							
Barrier Distance to Observer: 0.0   feet   Medium Trucks: 4.000   Freshel   Barrier Atten					Ν	loise S				eet)		
Diserver Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0%   Lane Equivalent Distance (in feet)	Barrier Distance	to Observer:										
Pad Elevation:	Observer Height	(Above Pad):	5.0 feet							0		
Road Grade:		,	0.0 feet			Heav	y Trucks	s: 8	.006	Grade Adj	ustmen	t: 0.0
Left View:	Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Distar	nce (in	feet)		
Right View: 90.0 degrees   Heavy Trucks: 92.547		Road Grade:	0.0%				Autos	s: 92	.547			
		Left View:	-90.0 degree	es		Mediu	m Trucks	s: 92	.504			
VehicleType   REMEL   Traffic Flow   Distance   Finite Road   Fresnel   Barrier Atten   Berm.		Right View:	90.0 degree	es		Heav	y Trucks	s: 92	.547			
Autos: 68.46	FHWA Noise Mod	el Calculations	5									
Medium Trucks: 79.45	VehicleType	REMEL	Traffic Flow	Distar	nce	Finite	Road	Fres	nel	Barrier Atte	en Be	rm Atten
Heavy Trucks: 84.25												0.00
Unmitigated Noise   Levels (without Topo and barrier attenuation)	Medium Trucks:	79.45	-19.19		-4.11		-1.20		-4.97	0.0	100	0.000
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNE           Autos:         61.2         59.3         57.5         51.5         60.1           Medium Trucks:         54.9         53.4         47.1         45.5         54.0           Heavy Trucks:         55.8         54.4         45.3         46.6         54.9           Vehicle Noise:         63.0         61.3         58.1         53.5         62.0   Centerline Distance to Noise Contour (in feet)	Heavy Trucks:	84.25	-23.15		-4.11		-1.20		-5.16	0.0	00	0.000
Autos:     61.2     59.3     57.5     51.5     60.1       Medium Trucks:     54.9     53.4     47.1     45.5     54.0       Heavy Trucks:     55.8     54.4     45.3     46.6     54.9       Vehicle Noise:     63.0     61.3     58.1     53.5     62.0       Centerline Distance to Noise Contour (in feet)		•										
Medium Trucks:         54.9         53.4         47.1         45.5         54.0           Heavy Trucks:         55.8         54.4         45.3         46.6         54.9           Vehicle Noise:         63.0         61.3         58.1         53.5         62.0           Centerline Distance to Noise Contour (in feet)	,,				eq Eve		Leq					
Heavy Trucks:         55.8         54.4         45.3         46.6         54.9           Vehicle Noise:         63.0         61.3         58.1         53.5         62.0           Centerline Distance to Noise Contour (in feet)			_									60.7
Vehicle Noise:         63.0         61.3         58.1         53.5         62.0           Centerline Distance to Noise Contour (in feet)			-						-			54.2
Centerline Distance to Noise Contour (in feet)			-						-			55.1 62.5
						50.1				02.0		02.
70 dBA 65 dBA 60 dBA 55 dE	Jones IIIIe Distall	ce to Noise CO	anoui (iii ieet)		70 dl	BA	65	dBA		60 dBA	55	5 dBA
Ldn: 29 63 136 293				Ldn:	29	1	6	3		136		293
CNEL: 31 68 146 314			CI	VEL:	31		6	8		146		314

	FH\	VA-RD-77-108	HIGH	A YAWI	IOISE PI	REDICT	ION M	ODEL			
	o: Year 2016					.,	t Name. Jumber	NNCF	C		
Road Name	e: Newport C at: North of Sa					JOD I	iumber.	8211			
SITE S	SPECIFIC IN	IPUT DATA				1	NOISE	MODE	L INPUT	S	
Highway Data					Site Cor				oft = 15)		
Average Daily	Traffic (Adt):	7,300 vehicle	s					Autos.	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles).	15		
Peak H	our Volume:	730 vehicle	s		He	avy Tru	cks (3+	Axles).	15		
Vel	nicle Speed:	45 mph			Vehicle	Mix					
Near/Far Lar	ne Distance:	76 feet		-		icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	6 12.9%	9.6%	97.42%
Bar	rier Height:	0.0 feet			М	edium T	rucks:	84.89	6 4.9%	10.3%	1.84%
Barrier Type (0-Wa		0.0			- 1	Heavy T	rucks:	86.5%	6 2.7%	10.8%	0.74%
Centerline Dis	t. to Barrier:	100.0 feet		-	Noise S	ource F	levatio	ns (in f	eet)		
Centerline Dist. t	o Observer:	100.0 feet		F	10.00 0	Auto		2.000	001)		
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Truck		1.000			
Observer Height (/	Above Pad):	5.0 feet				vy Truck		3.006	Grade A	diustmen	t: 0.0
Pa	d Elevation:	0.0 feet		L						,	
Roa	d Elevation:	0.0 feet		1	Lane Eq				feet)		
F	Road Grade:	0.0%				Auto		2.547			
	Left View:	-90.0 degree	es			m Truck		2.504			
	Right View:	90.0 degree	es		Heav	ry Truck	s: 92	2.547			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fres		Barrier A		rm Atten
Autos:	68.46	-3.32		-4.1		-1.20		-4.87	-	000	0.000
Medium Trucks:	79.45	-20.56		-4.1		-1.20		-4.97	-	000	0.000
Heavy Trucks:	84.25	-24.51		-4.1	1	-1.20		-5.16	0.	000	0.000
Unmitigated Noise	•		_								
VehicleType Autos:	Leq Peak Hou		57.9	Leq E	vening 56.2		Night 50	4	Ldn 58		NEL 59.3
Medium Trucks:	53		57.9		45.7		44		58.		52.9
Heavy Trucks:	54		53.0		44.0		44	-	53	-	53.7
Vehicle Noise:	61		59.9		56.8		52		60		61.1
Centerline Distanc	e to Noise Co										
	5 .10.00 00	( 1000		70 0	iBA	65	dBA		60 dBA	55	5 dBA
			Ldn:	2	4		51		110		238
		0	VFI:	2	-		55		118		255

Tuesday, May 29, 2012

	FHV	VA-RD-77-108	HIGHWAY	NOISE P	REDICTION	ON MODEL		
Scenario	: Year 2016 \	With Project			Project I	Vame: NNC	PC	
Road Name	e: Newport CT	TR .			Job Nu	mber: 8211		
Road Segment	t: North of Sa	n Miguel						
	PECIFIC IN	PUT DATA					EL INPUTS	i
Highway Data				Site Cor	ditions (	Hard = 10,	Soft = 15)	
Average Daily T	raffic (Adt):	7,600 vehicles	3			Auto	s: 15	
Peak Hour F	Percentage:	10%				cks (2 Axles	,	
Peak Ho	our Volume:	760 vehicles	3	He	avy Truci	ks (3+ Axles	): 15	
Veh	icle Speed:	45 mph		Vehicle	Mix			
Near/Far Lan	e Distance:	76 feet			icleType	Day	Evening	Night Daily
Site Data					A	utos: 77.5	% 12.9%	9.6% 97.42%
Barı	rier Heiaht:	0.0 feet		М	edium Tru	icks: 84.8	% 4.9%	10.3% 1.84%
Barrier Type (0-Wa		0.0		1	Heavy Tru	icks: 86.5	% 2.7%	10.8% 0.74%
Centerline Dist	t. to Barrier:	100.0 feet		Noise S	ource Ele	vations (in	feet)	
Centerline Dist. to	o Observer:	100.0 feet			Autos		,	
Barrier Distance to	o Observer:	0.0 feet		Mediu	m Trucks			
Observer Height (A	Above Pad):	5.0 feet			vy Trucks		Grade Adiu	stment: 0.0
Pa	d Elevation:	0.0 feet			*			
Road	d Elevation:	0.0 feet		Lane Eq	uivalent	Distance (ii	ı feet)	
R	load Grade:	0.0%			Autos			
	Left View:	-90.0 degree	s		m Trucks			
	Right View:	90.0 degree	es	Heav	y Trucks	92.547		
FHWA Noise Mode	I Calculation:	s		1				
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier Atte	n Berm Atten
Autos:	68.46	-3.14	-4	.11	-1.20	-4.8	7 0.00	0.000
Medium Trucks:	79.45	-20.38	-4	.11	-1.20	-4.9	7 0.00	0.000
Heavy Trucks:	84.25	-24.34	-4	.11	-1.20	-5.1	6 0.00	0.000
Unmitigated Noise	Levels (with	out Topo and	barrier atte	enuation)				
VehicleType I	Leq Peak Hou	ır Leq Day	Leq	Evening	Leq N	light	Ldn	CNEL
Autos:	60.		58.1	56.3		50.3	58.9	59.5
Medium Trucks:	53.		52.2	45.9		44.3	52.8	53.0
Heavy Trucks:	54.		53.2	44.1		45.4	53.7	53.9
Vehicle Noise:	61.	.8	60.1	56.9		52.3	60.8	61.3
Centerline Distance	e to Noise Co	ontour (in feet)						
				0 dBA	65 d		60 dBA	55 dBA
			Ldn:	24	53		113	244
		CN	IEL:	26	56		121	262

Highway Data  Average Daily Traffic (Adt): 10,90	guel					NNCP	0							
Highway Data  Average Daily Traffic (Adt): 10,90	DATA			Project Name: NNCPC Job Number: 8211										
Average Daily Traffic (Adt): 10,90		SITE SPECIFIC INPUT DATA					L INPUT	S						
	lighway Data					Site Conditions (Hard = 10, Soft = 15)								
	0 vehicles					Autos:	15							
Peak Hour Percentage: 1	0%		Me	dium Tru	cks (2	Axles):	15							
Peak Hour Volume: 1,09	0 vehicles		He	avy Truc	ks (3+	Axles):	15							
Vehicle Speed: 4	5 mph		Vehicle	Mix										
Near/Far Lane Distance: 7	6 feet		Veh	icleType		Day	Evening	Night	Daily					
Site Data				A	utos:	77.5%	12.9%	9.6%	97.42%					
Barrier Height: 0	0.0 feet		Me	edium Tru	ucks:	84.8%	4.9%	10.3%	1.84%					
Barrier Type (0-Wall, 1-Berm):	0.0		Heavy Trucks: 86.5% 2.7% 10.8% 0.74											
	0.0 feet		Noise Source Elevations (in feet)											
	0.0 feet			Autos	: 2	.000								
	0.0 feet		Mediui	m Trucks	: 4	.000								
/-	5.0 feet		Heav	y Trucks	: 8	.006	Grade Ad	iustment	0.0					
	0.0 feet		1 5		D/	/:- /								
	0.0 feet		Lane Equivalent Distance (in feet)  Autos: 92.547											
	0.0%		A decellor	Autos m Trucks		2.504								
	0.0 degrees					2.504								
	0.0 degrees		Heav	ry Trucks	: 92	547								
FHWA Noise Model Calculations														
, , ,		Distance		Road	Fres		Barrier Att		m Atten					
Autos: 68.46	-1.58	-4.		-1.20		-4.87		000	0.000					
Medium Trucks: 79.45	-18.82	-4.		-1.20		-4.97		000	0.000					
Heavy Trucks: 84.25	-22.77	-4.		-1.20		-5.16	0.0	000	0.000					
Unmitigated Noise Levels (without 7					E solo t	_	I dn		VFI					
VehicleType Leq Peak Hour  Autos: 61.6	Leq Day		Evening 57.9	Leq N	vignt 51	0	60.f	-	VEL 61.1					
Medium Trucks: 55.3	53.		47.5		45	-	54.4		54.6					
Heavy Trucks: 56.2	54.	-	45.7		47		55.3		55.4					
Vehicle Noise: 63.4	61.		58.5		53		62.4		62.8					
Centerline Distance to Noise Contou	ır (in feet)													
	,	70	) dBA	65 a	lBA	6	0 dBA	55	dBA					
	Ld	n:	31	67	7		144	3	10					
	CNE	L:	33	72	2		154	3	33					

Tuesday.	 00	0040

	FHW	/A-RD-77-108	HIGH	WAY N	OISE P	REDICT	ION MO	DEL					
Scenario: Year 2016 With Project Road Name: Newport CTR Road Segment: South of Newport CTR (Circle					Project Name: NNCPC Job Number: 8211								
SITE S	SITE SPECIFIC INPUT DATA					١	IOISE	MODE	L INPUTS	3			
Highway Data				5	Site Cor	nditions	(Hard =	= 10, Sc	oft = 15)				
Average Daily	Traffic (Adt): 1	4,200 vehicles	s					Autos:	15				
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15				
Peak H	our Volume:	1,420 vehicles	S		He	eavy Tru	cks (3+	Axles):	15				
Vel	hicle Speed:	45 mph		1	/ehicle	Mix							
Near/Far Lar	ne Distance:	76 feet				icleType	,	Day	Evening	Night	Daily		
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%		
Bar	rier Heiaht:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.84%		
Barrier Type (0-W		0.0			Heavy Trucks: 86.5% 2.7% 10.8%								
Centerline Dis	st. to Barrier:	100.0 feet		,	Voise S	ource E	levatio	ns (in fe	eet)				
Centerline Dist.		100.0 feet				Auto		.000	,				
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck		.000					
Observer Height (	,	5.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0								
Pad Elevation: 0.0 feet					· ·								
	ad Elevation:	0.0 feet		L	Lane Equivalent Distance (in feet)								
F	Road Grade:	0.0%			Autos: 92.547								
	Left View:	-90.0 degree			Medium Trucks: 92.504 Heavy Trucks: 92.547								
	Right View:	90.0 degree	es		Hea	vy Truck	s: 92	.547					
FHWA Noise Mode	el Calculations	;											
VehicleType	REMEL	Traffic Flow	Dist	tance		Road	Fres		Barrier Atte		m Atten		
Autos:	68.46	-0.43		-4.11		-1.20		-4.87	0.0		0.000		
Medium Trucks:	79.45	-17.67		-4.11		-1.20		-4.97	0.0		0.000		
Heavy Trucks:	84.25	-21.62		-4.11		-1.20		-5.16	0.0	100	0.000		
Unmitigated Noise													
	Leq Peak Hou			Leq Ev			Night		Ldn	_	NEL		
Autos:	62.		60.8		59.1 53.0				61.6		62.2		
Medium Trucks:	56.		55.0		48.6		47.		55.5		55.8		
Heavy Trucks: Vehicle Noise:	57. 64.		55.9 62.8		46.9 59.7		48. 55.	-	56.5 63.5		56.6 64.0		
Centerline Distance		-						-					
Cocomine Distant	110/36 00	our (mr reet)		70 a	IBA	65	dBA	6	60 dBA	55	dBA		
			Ldn:	37	7	8	30		172	3	370		
		CI	VEL:	40	)	8	36		184	3	97		

	FHV	VA-RD-77-108	HIGHW	AY NO	ISE P	REDICT	ION M	DDEL						
Scenari Road Name Road Segmen		Project Name: NNCPC Job Number: 8211												
SITE S	SITE SPECIFIC INPUT DATA					-	NOISE	MODE	L INPUT	S				
Highway Data	lighway Data					Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt):	9,100 vehicles	3					Autos:	15					
Peak Hour	Percentage:	10%			Me	edium Ti	ucks (2	Axles):	15					
Peak H	our Volume:	910 vehicles	3		He	eavy Tru	cks (3+	Axles):	15					
Vel	hicle Speed:	45 mph		V	ehicle	Mix								
Near/Far Lar	ne Distance:	76 feet		F		icleTyp	9	Day	Evening	Night	Daily			
Site Data							Autos:	77.5%	12.9%	9.6%	97.429			
Rar	rier Height:	0.0 feet			Μ	edium 7	rucks:	84.8%	4.9%	10.3%	1.849			
Barrier Type (0-Wa	all, 1-Berm):	0.0				Heavy 7	rucks:	86.5%	2.7%	10.8%	0.749			
Centerline Dis		100.0 feet		N	Noise Source Elevations (in feet)									
Centerline Dist. t		100.0 feet				Auto	s: 2	2.000						
Barrier Distance t		0.0 feet			Mediu	m Truck	s: 4	.000						
Observer Height (	,	5.0 feet			Hear	y Truck	:s: 8	3.006	Grade Ad	justment	0.0			
	ad Elevation:	0.0 feet		-	Lane Equivalent Distance (in feet)									
	ad Elevation:	0.0 feet		L	Autos: 92.547									
F	Road Grade:	0.0%												
	Left View:	-90.0 degree			Medium Trucks: 92.504 Heavy Trucks: 92.547									
	Right View:	90.0 degree	es		неа	vy Truci	:S: 94	2.547						
FHWA Noise Mode														
VehicleType	REMEL	Traffic Flow	Dista		Finite	Road	Fres		Barrier Att		m Atten			
Autos:	68.46	-2.36		-4.11		-1.20		-4.87		000	0.00			
Medium Trucks:	79.45	-19.60		-4.11		-1.20		-4.97		000	0.00			
Heavy Trucks:	84.25	-23.55		-4.11		-1.20		-5.16	0.0	000	0.00			
Unmitigated Noise							N.E. aufart		Lele					
VehicleType Autos:	Leq Peak Hou		58.9	eq Eve	57.1		Night 51	1	Ldn 59.		NEL 60.			
Medium Trucks:	54		53.0		46.7		45		53.0		53			
Heavy Trucks:	55		54.0		44.9		46		54.	-	54			
Vehicle Noise:	62		60.9		57.7		53		61.		62.			
Centerline Distance	e to Noise Co	ontour (in feet)	)											
				70 dE	BA		dBA	(	60 dBA		dBA			
			Ldn:	28			59		128	- 2	75			
			IFI:	30			64		137		95			

	FH\	WA-RD-77-108	HIGH	NAY N	OISE PE	REDICTIO	N M	ODEL					
Scenario: Year 2016 With Project						Project Name: NNCPC							
Road Nan		Job Number: 8211											
Road Segme	nt: North of Co	oast Highway											
SITE SPECIFIC INPUT DATA									L INPUT	S			
Highway Data				S	ite Con	ditions (l	Hard	= 10, Sc	oft = 15)				
Average Daily	Traffic (Adt):	16,400 vehicles						Autos:	15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15								
Peak I	lour Volume:	1,640 vehicles	;		He	avy Truck	rs (3+	- Axles):	15				
Ve	ehicle Speed:	45 mph		ı.	ehicle l	Miv							
Near/Far La	ne Distance:	76 feet		F.		icleType		Day	Evenina	Night	Dailv		
Site Data							ıtos:	77.5%	12.9%	9.6%	97.42%		
Ra	rrier Height:	0.0 feet			Me	edium Tru	cks:	84.8%	4.9%	10.3%	1.84%		
Barrier Type (0-V		0.0			H	leavy Tru	cks:	86.5%	2.7%	10.8%	0.74%		
	st. to Barrier:	100.0 feet			Noise Source Elevations (in feet)								
Centerline Dist.	to Observer:	100.0 feet		,	ioise sc	Autos:		2.000	et)				
Barrier Distance	to Observer:	0.0 feet			Modiuu	n Trucks:		4.000					
Observer Height	(Above Pad):	5.0 feet				v Trucks:		3.006	Grade Ad	liustment	0.0		
P	ad Elevation:	0.0 feet				•				juotimom	0.0		
Ro	ad Elevation:	0.0 feet		L	ane Eq	uivalent i			feet)				
	Road Grade:	0.0%				Autos:	-	2.547					
	Left View:	-90.0 degree	s			n Trucks:	-	2.504					
	Right View:	90.0 degree	·S		Heav	y Trucks:	9:	2.547					
FHWA Noise Mod													
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite		Fre		Barrier Att		m Atten		
Autos:		0.20		-4.11		-1.20		-4.87		000	0.000		
Medium Trucks:		-17.04		-4.11		-1.20		-4.97		000	0.000		
Heavy Trucks:	84.25	-21.00		-4.11		-1.20		-5.16	0.0	000	0.000		
Unmitigated Nois													
VehicleType	Leq Peak Hou		_	Leq Ev		Leq N	_		Ldn		VEL		
Autos:			31.4		59.7		53		62.	_	62.9		
Medium Trucks:			55.6		49.2		47		56.		56.4		
Heavy Trucks:			6.5		47.5		48		57.		57.2		
Vehicle Noise:			3.4		60.3		55	5.6	64.:	2	64.6		
Centerline Distan	ce to Noise Co	ontour (in feet)								,			
			L	70 d		65 d		1 6	0 dBA		dBA		
			.dn:	41		88			189		07		
		C/\	IEL:	44		94			203	4	37		

	FH\	WA-RD-77-108	HIGH	WAY N	IOISE P	REDICT	ION MO	DDEL			
Road Nar	rio: Year 2016 ne: Santa Rosa ent: North of Sa	a	3			.,	t Name: lumber:		С		
SITE	SPECIFIC IN	IPUT DATA				1	NOISE	MODE	L INPUT	S	
Highway Data					Site Cor	nditions	(Hard:	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	3,800 vehicle	s					Autos:	15		
Peak Hou	r Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak I	Hour Volume:	380 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
V	ehicle Speed:	45 mph		1	Vehicle	Mix					
Near/Far La	ane Distance:	52 feet		F	Veh	icleType	9	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
Ba	arrier Height:	0.0 feet			M	ledium T	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-V		0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%
	ist. to Barrier:	100.0 feet		1	Noise S	ource E	levatio	ns (in fe	eet)		
Centerline Dist	to Observer:	100.0 feet				Auto		.000	,		
Barrier Distance		0.0 feet			Mediu	m Truck	s: 4	.000			
Observer Height	. ,	5.0 feet			Hea	vy Truck	s: 8	.006	Grade Ad	justmen	t: 0.0
	Pad Elevation:	0.0 feet									
Ro	oad Elevation:	0.0 feet		1	Lane Eq	uivalen			feet)		
	Road Grade:	0.0%				Auto		.607			
	Left View:	-90.0 degre				m Truck		.566			
	Right View:	90.0 degre	es		Hea	vy Truck	s: 96	6.608			
FHWA Noise Mod	del Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos		-6.15		-4.39	-	-1.20		-4.87		000	0.000
Medium Trucks				-4.39	-	-1.20		-4.97		000	0.000
Heavy Trucks	84.25	-27.35		-4.39	9	-1.20		-5.16	0.0	000	0.000
Unmitigated Nois			_								
VehicleType	Leq Peak Hot			Leg Ev			Night		Ldn		NEL
Autos			54.8		53.0		47.		55.0	-	56.2
Medium Trucks			49.0		42.6		41.		49.	-	49.7
Heavy Trucks. Vehicle Noise			49.9 56.8		40.9 53.7		42		50.5 57.5		50.6 58.0
					33.7		49	.0	57.3	3	56.0
Centerline Distar	ice to Noise C	ontour (in feet	1	70 c	IRA	65	dBA	-	60 dBA	5	5 dBA
			Ldn:	1!			32	1 ,	68		147
		C	NFI:	10	-		34		73		158
		0.			-						

To a section			0040	
Tuesday,	May	29,	2012	

Average Daily Traffic (Adt): 14,300 vehicles   Peak Hour Percentage: 10%   Peak Hour Volume: 1,430 vehicles   Vehicle Speed: 45 mph   Near/Far Lane Distance: 52 feet   Vehicle Type   Day   Evening   Night   Dail   Vehicle Type   Day   Evening   Night   Dail   Night   Dail   Night   Dail   Night   Dail   Night   Night   Dail   Night   Nigh		FHW	A-RD-77-108	HIGH	WAY	NOISE P	REDICTI	ON MC	DEL			
Autos: 15   Auto	Road Nam	e: Santa Rosa	,							0		
Average Daily Traffic (Adi): 14,300 vehicles   Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15	SITE	SPECIFIC INI	PUT DATA								S	
Peak Hour Percentage:	Highway Data					Site Cor	nditions (	(Hard =	: 10, Sc	ft = 15)		
Peak Hour Volume	Average Daily	Traffic (Adt): 1-	4,300 vehicle	S					Autos:	15		
Vehicle Speed: Near/Far Lane Distance:   52 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Dail	Peak Hour	Percentage:	10%			Me	dium Tru	icks (2	Axles):	15		
Near/Far Lane Distance:   52 feet   Vericle Max   Vericle Type   Day   Evening   Night   Dail	Peak H	lour Volume:	1,430 vehicle	S		He	eavy Truc	ks (3+	Axles):	15		
Near/Far Lane Distance:   52 feet   VehicleType   Day   Evening   Night   Dail	Ve	hicle Speed:	45 mph		-	Vehicle	Miv					
Autos: 77.5%   12.9%   9.6%   97.4%	Near/Far La	ne Distance:	52 feet						Dav	Evenina	Niaht	Daily
Barrier Type (0-Wall, 1-Berm): 0.0 feet	Site Data							utos:		Ü		,
Barrier Type (O-Wall, 1-Barm): 0.0   Centerline Dist. to Barrier: 100.0   feet	Ra	rrier Heiaht	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Centerline Dist. to Observer: Barrier Distance to Observer: D.0.0 feet	Barrier Type (0-W	'all, 1-Berm):	0.0				Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Barrier Distance to Observer: 0.0   feet Observer Height (Above Pad): 5.0   feet Pad Elevation: 0.0   feet Pad Elevation			100.0 feet			Noise S	ource Ele	evation	s (in fe	et)		
Barrier Distance to Observer: 0.0 feet   Observer Height (Above Pad): 5.0 feet   Heavy Trucks: 8.006   Grade Adjustment: 0.0 feet   Heavy Trucks: 8.006   Grade Adjustment: 0.0 feet   Heavy Trucks: 8.006   Grade Adjustment: 0.0 feet   Heavy Trucks: 96.566   Heavy Trucks: 96.566   Heavy Trucks: 96.566   Heavy Trucks: 96.566   Heavy Trucks: 96.508   Heavy Trucks: 96.566   Heavy Trucks: 96.566   Heavy Trucks: 96.508   Heavy Trucks: 96.508   Heavy Trucks: 96.566   Heavy Trucks: 96			100.0 feet				Autos	: 2	000			
Pad Elevation:						Mediu	m Trucks	: 4.	.000			
Pad Elevation:	, , , , , , , , , , , , , , , , , , , ,					Hear	v Trucks	: 8.	006	Grade Ad	justment	0.0
Road Grade:							•					
Left View: Right View: 90.0 degrees Right View: 90.0 degrees   Heavy Trucks: 96.566   Heavy Trucks: 96.608						Lane Eq				eet)		
FHWA Noise Model Calculations	1											
VehicleType   REMEL   Traffic Flow   Distance   Finite Road   Fresnel   Barrier Atten   Bern Atte												
VehicleType		Right View:	90.0 degre	es		Hea	y Trucks	3: 96	.608			
Autos: 68.46	FHWA Noise Mode	el Calculations										
Medium Trucks:         79.45         -17.64         4.39         -1.20         -4.97         0.000         0.00           Heavy Trucks:         84.25         -21.59         -4.39         -1.20         -5.16         0.000         0.00           Unmitigated Noise Levels (without Topo and barrier attenuation)           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Medium Trucks:         56.2         54.7         48.4         46.8         55.3         55           Heavy Trucks:         57.1         55.6         46.6         47.9         56.2         55           Vehicle Noise:         64.3         62.6         59.4         54.7         63.3         6           Centerline Distance to Noise Contour (in feet)           Ldn:         36         77         165         36	,,			Dis				Fresi				
Heavy Trucks:   84.25   -21.59   -4.39   -1.20   -5.16   0.000   0.000												0.000
VehicleType												0.000
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         62.5         60.6         58.8         52.7         61.4         66.           Medium Trucks:         56.2         54.7         48.4         46.8         55.3         55           Heavy Trucks:         57.1         55.6         46.6         47.9         56.2         59           Vehicle Noise:         64.3         62.6         59.4         54.7         63.3         6           Centerline Distance to Noise Contour (in feet)           Ldn:         36         77         165         356	Heavy Trucks:	84.25	-21.59		-4.3	39	-1.20		-5.16	0.0	000	0.000
Autos: 62.5 60.6 58.8 52.7 61.4 6.  Medium Trucks: 56.2 54.7 48.4 46.8 55.3 55.  Heavy Trucks: 57.1 55.6 46.6 47.9 56.2 55.  Vehicle Noise: 64.3 62.6 59.4 54.7 63.3 6.  Centerline Distance to Noise Contour (in feet)  Ldn: 36 77 165 356		•							1		T	
Medium Trucks:         56.2         54.7         48.4         46.8         55.3         55.           Heavy Trucks:         57.1         55.6         46.6         47.9         56.2         5           Vehicle Noise:         64.3         62.6         59.4         54.7         63.3         6           Centerline Distance to Noise Contour (in feet)           Ldn:         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         36         77         165         356					Leq E							
Heavy Trucks:												62.0
Vehicle Noise:         64.3         62.6         59.4         54.7         63.3         6           Centerline Distance to Noise Contour (in feet)           Index:         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         36         77         165         356			=						-		-	55.5
Centerline Distance to Noise Contour (in feet)           70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         36         77         165         356												56.3 63.7
70 dBA 65 dBA 60 dBA 55 dBA Ldn: 36 77 165 356	Centerline Distant	ce to Noise Co	ntour (in feet	)								
	tormio Distant	5 110,00 00	( 1001		70	dBA	65 0	dBA	6	0 dBA	55	dBA
CNEL: 38 82 177 382				Ldn:	- ;	36	7	7		165	3	56
			C	VEL:	;	38	8:	2		177	3	882

Autos: 77.5% 12.9% 9.6% 97.4		FHV	VA-RD-77-108	HIGH	WAY NO	ISE P	REDICT	ION MO	ODEL			
Autos: 15   Autos: 15   Autos: 15   Autos: 15   Autos: 15   Peak Hour Percentage: 10%   High rucks (2 Autos: 15   Heavy Trucks (3+ Autos: 15   Heavy Trucks (3+ Autos: 15   Heavy Trucks (3+ Autos: 15   Heavy Trucks (3+ Autos: 15   Heavy Trucks (3+ Autos: 15   Heavy Trucks (3+ Autos: 15   Heavy Trucks (3+ Autos: 15   Heavy Trucks (3+ Autos: 15   Heavy Trucks (3+ Autos: 15   Heavy Trucks (3+ Autos: 15   Heavy Trucks (3+ Autos: 15   Heavy Trucks (3+ Autos: 15   Heavy Trucks (3+ Autos: 17,5%   12,9%   9,6%   97.4   Medium Trucks: 8,4.8%   4,9%   10,3%   1.8   Heavy Trucks: 86.5%   2,7%   10,8%   0.7   Medium Trucks: 8,6.5%   2,7%   10,8%   0.7   Medium Trucks: 8,06   Grade Adjustment: 0.0   Heavy Trucks: 8,06   Grade Adjustment: 0.0   Heavy Trucks: 8,06   Grade Adjustment: 0.0   Heavy Trucks: 8,06   Grade Adjustment: 0.0   Heavy Trucks: 8,06   Grade Adjustment: 0.0   Heavy Trucks: 8,06   Grade Adjustment: 0.0   Heavy Trucks: 8,06   Grade Adjustment: 0.0   Heavy Trucks: 8,06   Grade Adjustment: 0.0   Heavy Trucks: 8,06   Grade Adjustment: 0.0   Heavy Trucks: 8,06   Grade Adjustment: 0.0   Heavy Trucks: 8,06   Grade Adjustment: 0.0   Heavy Trucks: 8,06   Grade Adjustment: 0.0   Heavy Trucks: 8,06   Grade Adjustment: 0.0   Heavy Trucks: 8,06   Grade Adjustment: 0.0   Heavy Trucks: 8,06   Grade Adjustment: 0.0   Heavy Trucks: 8,06   Grade Adjustment: 0.0   Heavy Trucks: 8,06   Grade Adjustment: 0.0   Heavy Trucks: 8,06   Grade Adjustment: 0.0   Heavy Trucks: 8,06   Grade Adjustment: 0.0   Heavy Trucks: 96,60   Heavy Trucks: 96,90   Heavy Truck	Road Nam	e: Santa Rosa	a ,	3						С		
Average Daily Traffic (Adt): 16,800 vehicles   Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15   15	SITE	SPECIFIC IN	IPUT DATA				1	NOISE	MODE	L INPUT	S	
Peak Hour Percentage: Peak Hour Volume: Vehicle Speed: 45 mph Vehicle Speed: 45 mph Vehicle Speed: 45 mph Vehicle Mix Vehicl	Highway Data				S	ite Cor	nditions	(Hard	= 10, Sc	oft = 15)		
Peak Hour Volume: Vehicle Speed:	Average Daily	Traffic (Adt):	16,800 vehicle	s					Autos:	15		
Vehicle Speed: Near/Far Lane Distance:   52 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Day   Da	Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Near/Far Lane Distance:   52 feet   Vehicle Nix   Vehicle Type   Day   Evening   Night   Day   Site Data   Nutos:   77.5%   12.9%   9.6%   97.4	Peak H	lour Volume:	1,680 vehicle	s		He	eavy Tru	cks (3+	Axles):	15		
Near/Far Lane Distance:   52 leet   VehicleType   Day   Evening   Night   Dax	Ve	hicle Speed:	45 mph		V	ehicle	Mix					
Barrier Height: Barrier Type (0-Wall, 1-Berm): 0.0 feet Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Barrier: 100.0 feet Barrier Distance to Observer: 0.0 feet Centerline Dist. to Observer: 0.0 feet Barrier Distance to Observer: 0.0 feet Conserver Height (Above Pad): 5.0 feet Road Elevation: 0.0 feet Road Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees Right View: 90.0 degrees Right View: 90.0 degrees Heavy Trucks: 96.608   Heavy Trucks: 96.60	Near/Far La	ne Distance:	52 feet		F			9	Day	Evening	Night	Daily
Barrier Neght   0.0 teet   100.0 feet   10	Site Data						-	Autos:	77.5%	12.9%	9.6%	97.429
Barrier Type (0-Wall, 1-Berm): 0.0   Centerline Dist. to Barrier: 100.0 feet   Centerline Dist. to Disterver: 100.0 feet   Centerline Dist. to Observer: 100.0 feet   Barrier Distance to Observer: 0.0 feet   Centerline Dist. to Observer: 0.0 feet   Centerline Dist. to Observer: 0.0 feet   Centerline Dist. to Observer: 0.0 feet   Centerline Dist. to Observer: 0.0 feet   Centerline Distance for Distance   Centerline Distance for Noise Source Elevations: (in feet)   Centerline Distance for Noise Source Elevations: (in feet)   Centerline Distance for feet	Rai	rrier Heiaht	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.849
Centerline Dist. to Observer: 100.0   feet   Cardinary   Cardina							Heavy T	rucks:	86.5%	2.7%	10.8%	0.749
Barrier Distance to Observer: 0.0 feet   Chiban   Chiba					N	oise S	ource E	levatio	ns (in f	eet)		
Diserver Height (Above Pad):			100.0 feet				Auto	s: 2	2.000			
Pad Elevation:						Mediu	m Truck	s: 4	1.000			
Road Elevation:		,				Hear	vy Truck	:s: 8	3.006	Grade Ad	ljustmen	t: 0.0
Road Grade: 0.0%											-	
Left View:					Li	ane Eq			_ •	feet)		
Right View: 90.0 degrees   Heavy Trucks: 96.608	1											
FHWA Noise Model Calculations   VehicleType   REMEL   Traffic Flow   Distance   Finite Road   Fresnel   Barrier Atten   Berm Att												
VehicleType		Right View:	90.0 degre	es		Hea	vy Truck	is: 96	5.608			
Autos: 68.46												
Medium Trucks:         79.45         -16.94         -4.39         -1.20         -4.97         0.000				Dist		Finite		Fres				
Heavy Trucks: 84.25												0.00
Unmitigated Noise   Levels (without Topo and barrier attenuation)   VehicleType   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNEL												0.00
VehicleType	Heavy Trucks:	84.25	-20.89		-4.39		-1.20		-5.16	0.	000	0.00
Autos: 63.2 61.3 59.5 53.4 62.1 6  Medium Trucks: 56.9 55.4 49.1 47.5 56.0 5  Heavy Trucks: 57.8 56.3 47.3 48.6 56.9 5  Vehicle Noise: 65.0 63.3 60.1 55.4 64.0 6  Centerline Distance to Noise Contour (in feet)  To dBA 65 dBA 60 dBA 55 dBA  Ldn: 40 85 184 397								AP 1.				
Medium Trucks:         56.9         55.4         49.1         47.5         56.0         \$           Heavy Trucks:         57.8         56.3         47.3         48.6         56.9         \$           Vehicle Noise:         65.0         63.3         60.1         55.4         64.0         6           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         40         85         184         397	,,				Leq Eve							NEL 62
Heavy Trucks:			-									62. 56.
Vehicle Noise:         65.0         63.3         60.1         55.4         64.0         6           Centerline Distance to Noise Contour (in feet)           70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         40         85         184         397											-	56. 57.
70 dBA 65 dBA 60 dBA 55 dBA Ldn: 40 85 184 397												64.
70 dBA 65 dBA 60 dBA 55 dBA Ldn: 40 85 184 397	Centerline Distant	ce to Noise Co	ontour (in feet	)								
			,	Ī	70 dE	BA	65	dBA	(	60 dBA	55	dBA
CNEL: 43 92 197 425				Ldn:	40			B5		184	- :	397
			CI	VEL:	43			92		197	4	425

FH\	WA-RD-77-108 HIG	GHWAY I	NOISE PI	REDICTIO	N MODEL		
Scenario: Year 2016	With Project			Project N	lame: NNC	PC	
Road Name: Santa Rosa	a			Job Nu	mber: 8211		
Road Segment: South of N	ewport CTR						
SITE SPECIFIC IN	IPUT DATA					EL INPUTS	3
Highway Data			Site Cor	ditions (l	Hard = 10,	Soft = 15)	
Average Daily Traffic (Adt):	7,900 vehicles				Auto	s: 15	
Peak Hour Percentage:	10%				cks (2 Axles	,	
Peak Hour Volume:	790 vehicles		He	avy Truck	is (3+ Axles	;): 15	
Vehicle Speed:	45 mph	-	Vehicle	Mix			
Near/Far Lane Distance:	52 feet			icleType	Day	Evening	Night Daily
Site Data				Aı	itos: 77.5	% 12.9%	9.6% 97.42%
Barrier Height:	0.0 feet		М	edium Tru	cks: 84.8	% 4.9%	10.3% 1.84%
Barrier Type (0-Wall, 1-Berm):	0.0		1	Heavy Tru	icks: 86.5	% 2.7%	10.8% 0.74%
Centerline Dist. to Barrier:	100.0 feet	-	Noise S	ource Ele	vations (in	feet)	
Centerline Dist. to Observer:	100.0 feet	l l		Autos		,	
Barrier Distance to Observer:	0.0 feet		Mediu	m Trucks:			
Observer Height (Above Pad):	5.0 feet			vy Trucks:		Grade Adi	ustment: 0.0
Pad Elevation:	0.0 feet						
Road Elevation:	0.0 feet		Lane Eq	uivalent l	Distance (i	n feet)	
Road Grade:	0.0%			Autos:			
Left View:	-90.0 degrees			m Trucks:			
Right View:	90.0 degrees		Heav	y Trucks:	96.608		
FHWA Noise Model Calculation	s						
VehicleType REMEL	Traffic Flow L	Distance	Finite	Road	Fresnel	Barrier Atte	en Berm Atten
Autos: 68.46	-2.97	-4.3	9	-1.20	-4.8	7 0.0	0.00
Medium Trucks: 79.45	-20.21	-4.3	9	-1.20	-4.9	7 0.0	0.00
Heavy Trucks: 84.25	-24.17	-4.3	9	-1.20	-5.1	6 0.0	0.00
Unmitigated Noise Levels (with	out Topo and bar	rrier atter	nuation)				
VehicleType Leq Peak Hot			vening	Leq N	•	Ldn	CNEL
Autos: 59		-	56.2		50.2	58.8	
Medium Trucks: 53			45.8		44.2	52.7	
Heavy Trucks: 54			44.0		45.3	53.6	
Vehicle Noise: 61	.7 60.	0	56.8		52.2	60.7	61.
Centerline Distance to Noise Co	ontour (in feet)						
			dBA	65 d		60 dBA	55 dBA
	Ldr		24	52		111	240
	CNEL	.: 2	26	55		119	257

Tuesday, May 29, 2012 Tuesday, May 29, 2012

	FH\	WA-RD-77-108	HIGHV	VAY N	OISE PF	REDICT	ION MC	DEL			
	o: Year 2016 e: Avocado at: North of Sa	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				.,	Name: lumber:		С		
SITE S	SPECIFIC IN	IPUT DATA				Ν	IOISE	MODE	L INPUT	S	
Highway Data				5	Site Con	ditions	(Hard =	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	5,000 vehicle	s					Autos:	15		
Peak Hour I	Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15		
Peak Ho	our Volume:	500 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Vel	nicle Speed:	40 mph		١	/ehicle I	Mix					
Near/Far Lar	ne Distance:	36 feet			Vehi	cleType	,	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
Bar	rier Heiaht:	0.0 feet			Me	edium T	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wa	all, 1-Berm):	0.0			F	leavy T	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis	t. to Barrier:	100.0 feet		^	Voise Sc	urce E	levation	ns (in fe	eet)		
Centerline Dist. t		100.0 feet				Auto		.000	,		
Barrier Distance t		0.0 feet			Mediur	n Truck	s: 4	.000			
Observer Height (/	,	5.0 feet			Heav	y Truck	s: 8	.006	Grade Ad	iustmen	t: 0.0
	d Elevation: d Elevation:	0.0 feet 0.0 feet		,	ane Equ	uivalon	t Dietar	oo (in	foot)		
	la ⊑ievation: Road Grade:	0.0 reet 0.0%		-	ane Ly	Auto		.412	ieei)		
,	Left View:	-90.0 degre	00		Mediur	n Truck		.372			
	Right View:	90.0 degre				y Truck		.413			
FHWA Noise Mode	l Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	ance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos:	66.51	-4.45		-4.51		-1.20		-4.87		000	0.000
Medium Trucks:	77.72			-4.51		-1.20		-4.97		000	0.000
Heavy Trucks:	82.99			-4.51		-1.20		-5.16	0.0	000	0.000
Unmitigated Noise								1		1 -	N. (=)
VehicleType Autos:	Leq Peak Hot		54.4	Leq Ev	ening 52.7	Leq	Night 46.	6	Ldn 55.2		NEL 55.9
Medium Trucks:	50		48.8		42.4		40.	-	49.4		49.6
Heavy Trucks:	51		50.2		41.2		42.	-	50.8		50.9
Vehicle Noise:	58		56.6		53.3		48.		57.		57.8
Centerline Distance	e to Noise C	ontour (in feet	)								
		,		70 d	IBA	65	dBA	6	60 dBA	55	5 dBA
			Ldn:	14	4	3	31	•	66	•	143
		C	NEL:	15	5	3	33		71		153

Fu	WA-RD-77-108	HICHWAY	/ NOISE D	REDICT	ON MO	DEL		_	_
		HIGHWA	NOISE P						
Scenario: Year 2016	With Project			.,	Name:		2		
Road Name: Avocado				Job N	umber:	8211			
Road Segment: North of Co	oast Highway								
SITE SPECIFIC IN	NPUT DATA						L INPUTS	3	
Highway Data			Site Cor	nditions	(Hard =	10, Sc	ft = 15)		
Average Daily Traffic (Adt):	11,000 vehicles	3				Autos:	15		
Peak Hour Percentage:	10%		Me	dium Tru	icks (2 /	Axles):	15		
Peak Hour Volume:	1,100 vehicles	8	He	eavy Truc	cks (3+ A	Axles):	15		
Vehicle Speed:	40 mph		Vehicle	Miv					
Near/Far Lane Distance:	36 feet			icleTvpe		Dav	Evening	Night	Dailv
Site Data				//		77.5%		9.6%	
Barrier Height:	0.0 feet		М	edium Ti	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0			Heavy Ti	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet								
Centerline Dist. to Observer:	100.0 feet		Noise S			•	et)		
Barrier Distance to Observer:	0.0 feet			Auto		000			
Observer Height (Above Pad):	5.0 feet			m Truck		000			
Pad Flevation:		Hear	y Truck	s: 8.	006	Grade Adj	ustment	0.0	
Road Flevation:		Lane Eq	uivalen	Distan	ce (in t	eet)			
Road Grade:	0.0 feet 0.0%			Auto		412	,		
Left View:	-90.0 degree	00	Mediu	m Truck	98	372			
Right View:	90.0 degree			vy Truck		413			
		,,,		,					
FHWA Noise Model Calculation									
VehicleType REMEL	Traffic Flow	Distance		Road	Fresr		Barrier Atte		m Atten
Autos: 66.51			.51	-1.20		-4.87	0.0		0.000
Medium Trucks: 77.72			.51	-1.20		-4.97	0.0		0.000
Heavy Trucks: 82.99	-22.22	-4	.51	-1.20		-5.16	0.0	00	0.000
Unmitigated Noise Levels (with	nout Topo and	barrier att	enuation)						
VehicleType Leq Peak Ho			Evening	,	Night		Ldn		VEL
		57.9	56.1		50.1		58.7		59.3
		52.2	45.9		44.3		52.8		53.0
		53.6	44.6		45.9		54.2		54.3
Vehicle Noise: 6	1.8	60.0	56.8		52.2	2	60.8		61.2
Centerline Distance to Noise C	ontour (in feet,								
·		7	0 dBA	65	dBA	- 6	0 dBA	55	dBA
		Ldn: VEL:	24	5	i2		112	2	42

	FHW	A-RD-77-108	HIGHW	AY NO	DISE P	REDICT	ION MC	DEL			
	o: Year 2016 V	/ith Project				.,	Name:		С		
Road Name		Monat				Job N	lumber:	8211			
Road Segmen	t: South of Sar	n Miguel									
	SPECIFIC INF	PUT DATA							L INPUT	S	
Highway Data				S	ite Cor	nditions	(Hard =	: 10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 1:	5,500 vehicles	3					Autos:	15		
Peak Hour		10%				edium Tr			15		
		1,550 vehicles	3		He	eavy Tru	cks (3+	Axles):	15		
	nicle Speed:	40 mph		V	ehicle	Mix					
Near/Far Lar	ne Distance:	36 feet			Veh	icleType	9	Day	Evening	Night	Daily
Site Data						,	Autos:	77.5%	12.9%	9.6%	97.42
Bar	rier Height:	0.0 feet			M	edium T	rucks:	84.8%	4.9%	10.3%	1.84
Barrier Type (0-Wa		0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.74
Centerline Dis		100.0 feet		N	oise S	ource E	levation	ıs (in fe	eet)		
Centerline Dist. t	o Observer:	100.0 feet				Auto		.000	,		
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Truck	s: 4	.000			
Observer Height (	Above Pad):	5.0 feet				vy Truck		006	Grade Ad	iustment	0.0
Pa	d Elevation:	0.0 feet				•					
Roa	d Elevation:	0.0 feet		L	ane Eq	uivalen		_ •	feet)		
F	Road Grade:	0.0%				Auto		.412			
	Left View:	-90.0 degree				m Truck		.372			
	Right View:	90.0 degree	es		Hea	vy Truck	s: 98	.413			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dista		Finite	Road	Fres		Barrier Att		m Atter
Autos:	66.51	0.46		-4.51		-1.20		-4.87		000	0.0
Medium Trucks:	77.72	-16.77		-4.51		-1.20		-4.97		000	0.00
Heavy Trucks:	82.99	-20.73		-4.51		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise								1			
VehicleType Autos:	Leq Peak Hour 61.3		59.4	.eq Eve	ening 57.6	,	Night 51.	_	Ldn 60.2		NEL 60
Medium Trucks:	55.3	-	53.7		47.4		45.	-	54.3	-	54
Heavy Trucks:	56.	=	55.1		46.1		45. 47.	-	55.7	-	55
Vehicle Noise:	63.3		61.5		58.3		53.		62.2		62
Centerline Distanc	e to Noise Co	ntour (in feet	)								
	5 /10/00 00/	( 1001)		70 dE	ВА	65	dBA	6	0 dBA	55	dBA
			🗀								
			Ldn:	30		6	66		141	3	04

Tuesday, May 29, 2012

	FHV	VA-RD-77-108	HIGHWAY	NOISE P	REDICTIO	N MODEL		
	o: Year 2016 ve: Macarthur t: North of Bo	,				lame: NNCI mber: 8211	PC	
SITE S	SPECIFIC IN	IPUT DATA			NC	ISE MOD	EL INPUTS	
Highway Data				Site Cor	nditions (F	lard = 10, S	Soft = 15)	
Average Daily 1	raffic (Adt): 8	30,500 vehicles				Autos	: 15	
Peak Hour F	Percentage:	10%		Me	edium Truc	ks (2 Axles)	): 15	
Peak Ho	our Volume:	8,050 vehicles		He	eavy Truck	s (3+ Axles,	): 15	
Veh	nicle Speed:	45 mph		Vehicle	Miv			
Near/Far Lan	e Distance:	76 feet			icleType	Day	Evening N	ight Daily
Site Data						itos: 77.5	-	9.6% 97.42%
Ran	rier Height:	0.0 feet		М	edium Tru	cks: 84.8°	% 4.9% 1	0.3% 1.84%
Barrier Type (0-Wa		0.0			Heavy Tru	cks: 86.5°	% 2.7% 1	0.8% 0.74%
Centerline Dis	t. to Barrier:	100.0 feet		Noise S	ource Elev	vations (in	feet)	
Centerline Dist. to	o Observer:	100.0 feet			Autos:		,	
Barrier Distance to		0.0 feet		Mediu	m Trucks:			
Observer Height (A		5.0 feet			vy Trucks:	8.006	Grade Adjust	ment: 0.0
	d Elevation:	0.0 feet			•			
	d Elevation:	0.0 feet		Lane Eq		Distance (in	r feet)	
R	Road Grade:	0.0%			Autos:			
	Left View:	-90.0 degree			m Trucks:			
	Right View:	90.0 degree	S	Hear	vy Trucks:	92.547		
FHWA Noise Mode	l Calculation:	s		1				
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	7.11	-4	.11	-1.20	-4.87	0.000	0.000
Medium Trucks:	79.45	-10.13		.11	-1.20	-4.97		
Heavy Trucks:	84.25	-14.09	-4.	.11	-1.20	-5.16	0.000	0.000
Unmitigated Noise	Levels (with	out Topo and I	barrier atte	enuation)				
,,	Leq Peak Hou			Evening	Leq Ni	•	Ldn	CNEL
Autos:	70		88.4	66.6		60.5	69.2	69.8
Medium Trucks:	64		32.5	56.1		54.6	63.1	63.3
Heavy Trucks:	64		3.4	54.4		55.6	64.0	64.1
Vehicle Noise:	72	.1 7	70.3	67.2		62.5	71.1	71.5
Centerline Distance	e to Noise Co	ontour (in feet)						
				) dBA	65 dE		60 dBA	55 dBA
				118	254		546	1,177
		CV	IEL:	126	272	2	586	1,262

Tuesday, May 29, 2012 Tuesday, May 29, 2012

	FH	WA-RD-77-108	HIGH	HWAY I	NOISE P	REDICT	ION MC	DEL			
Road Nar	rio: Year 2016 me: Macarthur ent: South of B	,					t Name: lumber:		С		
	SPECIFIC IN			1			VOISE	MODE	L INPUT	S	
Highway Data	01 2011 10 11	0 . 5/1/1/			Site Cor						
Average Daily	Traffic (Adt):	69,200 vehicle	s					Autos:	15		
Peak Hou	r Percentage:	10%			Me	edium Ti	ucks (2	Axles):	15		
Peak I	Hour Volume:	6,920 vehicle	s		He	avy Tru	cks (3+	Axles):	15		
V	ehicle Speed:	45 mph		-	Vehicle	Mix					
Near/Far La	ane Distance:	76 feet		-		icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.69	6 97.42%
Ba	arrier Height:	0.0 feet			М	edium 7	rucks:	84.8%	4.9%	10.39	6 1.84%
Barrier Type (0-V		0.0				Heavy 7	rucks:	86.5%	2.7%	10.89	6 0.74%
Centerline D	ist. to Barrier:	100.0 feet		-	Noise S	ource F	levation	s (in fe	eet)		
Centerline Dist	to Observer:	100.0 feet		ŀ	110100	Auto		.000	,01,		
Barrier Distance		0.0 feet			Mediu	m Truck		000			
Observer Height	,,	5.0 feet			Hear	y Truck	s: 8.	.006	Grade Ad	iustmer	nt: 0.0
	Pad Elevation: 0.0 feet  Road Elevation: 0.0 feet					•					
Ro		-	Lane Eq				eet)				
	Road Grade:	0.0%				Auto		.547			
	Left View:	-90.0 degre				m Truck		.504			
	Right View:	90.0 degre	es		Hear	vy Truck	is: 92	.547			
FHWA Noise Mod					1						
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fres		Barrier Att		erm Atten
Autos.				-4.1		-1.20		-4.87		000	0.000
Medium Trucks				-4.1 -4.1		-1.20 -1.20		-4.97 -5.16		000	0.000
Heavy Trucks						-1.20		-5.16	0.0	000	0.000
VehicleType	Leg Peak Ho		_		vening	100	Night	1	Ldn		ONEL
Autos		ar Leg Daj 9.6	67.7	Ley E	65.9		TVIGITE 59.	٥	68.5		69.1
Medium Trucks		3.3	61.8		55.5		53.	-	62.4		62.6
Heavy Trucks			62.8		53.7		55.		63.3		63.5
Vehicle Noise		1.4	69.7		66.5		61.		70.4		70.9
Centerline Distar	ice to Noise C	ontour (in feet	:)								
				70	dBA	65	dBA	6	i0 dBA	5	5 dBA
			Ldn:	1	06	2	229		494		1,064
		C	NEL:	1	14	2	246		530		1,141

Tuesday,	May	29,	2012

	FHW.	A-RD-77-108	HIGI	1 YAWH	NOISE PI	REDICTI	ON MOI	DEL			
Scenario: Year 2 Road Name: Macarl Road Segment: South	hur	,				Project Job N	Name: I Imber: 8		С		
SITE SPECIFI	C INP	UT DATA				N	OISE N	10DE	L INPUTS	3	
Highway Data					Site Con	ditions	Hard =	10, Sc	oft = 15)		
Average Daily Traffic (Ad	tt): 43	,400 vehicles					,	Autos:	15		
Peak Hour Percentag	je:	10%			Me	dium Tru	cks (2 A	(xles	15		
Peak Hour Volun	ne: 4	,340 vehicles			He	avy Truc	ks (3+ A	lxles):	15		
Vehicle Spee	ed:	45 mph		H	Vehicle	Miv					
Near/Far Lane Distant	e:	76 feet		+		icleType		Dav	Evening	Night	Daily
Site Data								77.5%	-	9.6%	
Barrier Heig	he-	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berr		0.0			1	Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barri		100.0 feet		L		· -			-1		
Centerline Dist. to Observ		100.0 feet		L	Noise S			•	eet)		
Barrier Distance to Observ	er:	0.0 feet				Autos		000			
Observer Height (Above Pa	d):	5.0 feet				m Trucks		000	Grade Adj	uotmo nt	
Pad Elevation: 0.0 feet					Heav	y Trucks	: 8.0	006	Grade Adj	usimeni	0.0
Road Elevation	on:	0.0 feet			Lane Eq	uivalent	Distanc	e (in t	feet)		
Road Grad	de:	0.0%				Autos	: 92.	547			
Left Vie	w:	-90.0 degree	s		Mediu	m Trucks	: 92.	504			
Right Vie	W.	90.0 degree	S		Heav	y Trucks	: 92.	547			
FHWA Noise Model Calcula	tions										
VehicleType REME		raffic Flow	Dis	stance		Road	Fresn		Barrier Atte		m Atten
	3.46	4.42		-4.1		-1.20		-4.87	0.0		0.000
	9.45	-12.81		-4.1		-1.20		-4.97	0.0		0.000
Heavy Trucks: 8-	4.25	-16.77		-4.1	1	-1.20		-5.16	0.0	00	0.000
Unmitigated Noise Levels (	$\overline{}$		barri								
	Hour	Leq Day		Leq E	vening	Leq			Ldn		VEL
VehicleType Leq Peak		F	55.7		63.9		57.9		66.5		67.1
Autos:	67.6				53.5 51.9		1.9 60.4			60.6	
Autos: Medium Trucks:	61.3		9.8								
Autos:		6	59.8 50.7 57.7		53.5 51.7 64.5		51.9 53.0 59.8	1	61.3		61.4
Autos:  Medium Trucks:  Heavy Trucks:  Vehicle Noise:	61.3 62.2 69.4	6	60.7		51.7		53.0	1	61.3		61.4
Autos: Medium Trucks: Heavy Trucks:	61.3 62.2 69.4	6	60.7	70	51.7		53.0 59.8	1	61.3		61.4 68.8 dBA
Autos: Medium Trucks: Heavy Trucks: Vehicle Noise:	61.3 62.2 69.4	tour (in feet)	60.7		51.7 64.5		53.0 59.8 IBA	1	61.3 68.4	55	61.4 68.8

Barrier Type (0-Wall, 1-Berm): 0.0 feet   Centerline Dist. to Doserver: 100.0 feet   Centerline Dist. to Observer: 100.0 feet   Autos: 2.000   Medium Trucks: 4.000   Medium Trucks: 4.000   Medium Trucks: 4.000   Medium Trucks: 80.06   Grade Adjustment: 0.0 feet   Autos: 92.547   Medium Trucks: 92.504   Medium Truck		FH	WA-RD-77-10	B HIGI	HWAY N	IOISE P	REDICT	ION M	ODEL			
Autos: 15   Auto	Road Nam	e: Macarthur		s			.,			С		
Average Daily Traffic (Adt): 68,100 vehicles	SITE S	SPECIFIC II	NPUT DATA				1	NOISE	MODE	L INPUT	S	
Peak Hour Percentage:	Highway Data					Site Cor	nditions	(Hard	= 10, Sc	oft = 15)		
Peak Hour Volume:	Average Daily	Traffic (Adt):	68,100 vehicle	es					Autos:	15		
Vehicle Speed:	Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Near/Far Lane Distance: 76 feet   Vehicle Type   Day   Evening   Night   Daily	Peak H	our Volume:	6,810 vehicle	es		He	avy Tru	cks (3+	Axles):	15		
Near/Far Lane Distance: 76 feet   VehicleType   Day   Evening   Night   Daily	Vei	hicle Speed:	45 mph			Vohiclo	Miv					
Barrier Height:   0.0   feet   Barrier Type (0-Wall, 1-Berm):   0.0   feet   Centerline Dist. to Barrier:   100.0   feet   Centerline Dist. to Observer:   100.0   feet   Centerline Dist. for Observer:   100.0   feet   Center	Near/Far Lar	ne Distance:	76 feet		F'			9	Day	Evening	Night	Daily
Barrier Trype (O-Wall, 1-Berm):	Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
	Rar	rior Hoiaht	0.0 feet			М	ledium T	rucks:	84.8%	4.9%	10.3%	1.84%
Noise Model Calculations   Noise Model Calculations   Noise Model Calculations	Barrier Type (0-W	all, 1-Berm):	0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%
Barrier Distance to Observer: 0.0   feet Observer Height (Above Pad): 5.0   feet Pad Elevation: 0.0   feet Road Elevation: 0.0   feet Road Elevation: 0.0   feet Road Grade: 0.0%					1	Noise S	ource E	levatio	ns (in fe	eet)		
Observer Height (Above Pad):							Auto	s: 2	2.000			
Pad Elevation:						Mediu	m Truck	:s: 4	1.000			
Road Elevation:		,				Hear	vy Truck	:s: 8	3.006	Grade Ad	justment	: 0.0
Road Grade: Left View: 90.0 degrees   Medium Trucks: 92.547					L.		·					
Left View:					1	Lane Eq				feet)		
FHWA Noise Model Calculations   VehicleType   REMEL   Traffic Flow   Distance   Finite Road   Fresnel   Barrier Atten   Bern Attent   Autos: 68.46   6.38   -4.11   -1.20   -4.87   0.000   0.00   0												
FHWA Noise Model Calculations   Vehicle Type   REMEL   Traffic Flow   Distance   Finite Road   Fresnel   Barrier Atten   Berm Atten												
VehicleType		Right View:	90.0 degre	ees		Hea	vy Truck	is: 92	2.547			
Autos: 68.46   6.38   -4.11   -1.20   -4.87   0.000   0.00	FHWA Noise Mode	el Calculation	าร									
Medium Trucks: 79.45	VehicleType	REMEL				_		Fres				rm Atten
Heavy Trucks: 84.25												0.000
Unmitigated Noise   Levels (without Topo and barrier attenuation)   VehicleType   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNEL							-1.20					0.000
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         69.5         67.6         65.9         59.8         68.4         69           Medium Trucks:         63.3         61.8         55.4         53.9         62.3         62           Heavy Trucks:         64.1         62.7         53.7         54.9         63.3         63           Vehicle Noise:         71.4         69.6         66.5         61.8         70.3         70           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         105         227         489         1,053	Heavy Trucks:	84.25	-14.81		-4.11	1	-1.20		-5.16	0.0	000	0.000
Autos:         69.5         67.6         65.9         59.8         68.4         69           Medium Trucks:         63.3         61.8         55.4         53.9         62.3         62           Heavy Trucks:         64.1         62.7         53.7         54.9         63.3         63           Vehicle Noise:         71.4         69.6         66.5         61.8         70.3         70           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         105         227         489         1,053								N.E. aufart		Lata		NE
Medium Trucks:         63.3         61.8         55.4         53.9         62.3         62           Heavy Trucks:         64.1         62.7         53.7         54.9         63.3         63           Vehicle Noise:         71.4         69.6         66.5         61.8         70.3         70           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         105         227         489         1,053	,,			,	Leq E				. 0			
Heavy Trucks:   64.1   62.7   53.7   54.9   63.3   63     Vehicle Noise:   71.4   69.6   66.5   61.8   70.3   70     Centerline Distance to Noise Contour (in feet)		-										
Vehicle Noise:         71.4         69.6         66.5         61.8         70.3         70           Centerline Distance to Noise Contour (in feet)           70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         105         227         489         1,053									-			
70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         105         227         489         1,053											70.8	
70 dBA 65 dBA 60 dBA 55 dBA Ldn: 105 227 489 1,053	Centerline Distance											
			,		70 c	IBA	65	dBA	6	60 dBA	55	dBA
CNEL: 113 243 524 1,129				Ldn:	10	)5	2	27		489	1,	,053
			C	NEL:	11	3	2	43		524	1,	129

	FH	WA-RD-77-108	HIGH	WAY N	IOISE PI	REDICTI	ON MO	DDEL			
Scenar	io: Year 2016	With Project				Project	Name:	NNCP	С		
Road Nam	e: Macarthur					Job N	umber:	8211			
Road Segme	nt: North of S	an Miguel									
	SPECIFIC II	NPUT DATA							L INPUT	S	
Highway Data					Site Con	ditions	(Hard :	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	38,800 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	ıcks (2	Axles):	15		
Peak H	lour Volume:	3,880 vehicle	s		He	avy Truc	cks (3+	Axles):	15		
Ve	hicle Speed:	45 mph		-	Vehicle i	Miv					
Near/Far La	ne Distance:	76 feet		-		icleType		Dav	Evening	Night	Dailv
Site Data							lutos:	77.5%		9.6%	. ,
Po.	rrier Height:	0.0 feet			M	edium Tı	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0 reet			F	Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Di	. ,	100.0 feet		L							
Centerline Dist.		100.0 feet		1	Noise S			_ •	eet)		
Barrier Distance	to Observer:	0.0 feet				Autos		.000			
Observer Height (	(Above Pad):	5.0 feet				m Trucks		.000			
	ad Elevation:	0.0 feet			Heav	y Trucks	s: 8	.006	Grade Ad	justment	. 0.0
Roa	ad Elevation:	0.0 feet		1	Lane Eq	uivalent	Distar	nce (in	feet)		
	Road Grade:	0.0%				Autos	s: 92	.547			
	Left View:	-90.0 degree	es		Mediu	m Trucks	s: 92	.504			
	Right View:	90.0 degree	es		Heav	y Trucks	s: 92	.547			
FHWA Noise Mod	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fres		Barrier Att		rm Atten
Autos:	68.46			-4.1		-1.20		-4.87		000	0.000
Medium Trucks:				-4.1		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-17.26		-4.1	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrie	er atten	uation)						
VehicleType	Leq Peak Ho			Leq E	vening	Leq	Night		Ldn	_	NEL
Autos:	-		65.2		63.4		57		66.0	-	66.6
Medium Trucks:			59.3		53.0		51		59.9		60.1
Heavy Trucks:			60.3		51.2		52		60.8	_	61.0
Vehicle Noise:	68	3.9	67.2		64.0		59	.3	67.9	9	68.3
Centerline Distan	ce to Noise C	ontour (in feet	)								
				70 c			dBA	(	60 dBA		dBA
			Ldn:	7.	-		56		336		723
		CI	VEL:	7	8	16	37		360	7	776

	FH\	WA-RD-77-108	HIGHW	AY N	OISE PE	REDICTIO	N MO	DEL			
Road Nam	io: Year 2016 ne: Macarthur nt: South of Sa	,				Project N Job Nu			С		
	SPECIFIC IN	NPUT DATA				NO	DISE N	ИODE	L INPUT	S	
Highway Data				S	ite Con	ditions (l	lard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	32,400 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Truc	ks (2 /	Axles):	15		
Peak H	lour Volume:	3,240 vehicle	S		He	avy Truck	s (3+ /	Axles):	15		
Ve	hicle Speed:	45 mph		ν	ehicle i	Mix					
Near/Far La	ne Distance:	76 feet		F	Veh	icleType		Day	Evening	Night	Daily
Site Data						AL	itos:	77.5%	12.9%	9.6%	97.42%
Rai	rrier Height:	0.0 feet			Me	edium Tru	cks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0			F	Heavy Tru	cks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis		100.0 feet		۸	loise So	ource Ele	vation	s (in f	eet)		
Centerline Dist.		100.0 feet				Autos:	2.	000			
Barrier Distance		0.0 feet			Mediui	m Trucks:	4.	000			
Observer Height (	,	5.0 feet			Heav	y Trucks:	8.	006	Grade Ad	iustmen	t: 0.0
	ad Elevation:	0.0 feet		L		•					
	ad Elevation:	0.0 feet		L	ane Eq	uivalent l			feet)		
,	Road Grade:	0.0%				Autos:		547			
	Left View: -90.0 degrees					m Trucks:		504			
	Right View:	90.0 degre	es		Heav	y Trucks:	92.	547			
FHWA Noise Mode	el Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dista			Road	Fresi		Barrier Att		rm Atten
Autos:	68.46			-4.11		-1.20		-4.87		000	0.000
Medium Trucks:	79.45			-4.11		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-18.04		-4.11		-1.20		-5.16	0.0	000	0.000
Unmitigated Noise											
VehicleType	Leq Peak Hou			.eq Ev		Leq N			Ldn		NEL
Autos:	66		64.4		62.6		56.6		65.2	-	65.8
Medium Trucks:	60		58.5		52.2		50.6		59.1		59.3
Heavy Trucks:	60		59.5		50.4		51.7		60.0		60.2
Vehicle Noise:	68		66.4		63.2		58.6	•	67.	l	67.6
Centerline Distant	ce to Noise C	ontour (in feet	:)	70 d	DΛ	65 d	24		60 dBA		5 dBA
			Ldn:	70 a		138			298		641
		_	NFI:	69		148	-		319		688
		C.	V_L.	09		140	,		010		000

• • • • • • • • • • • • • • • • • • • •	IWA-RD-77-10	B HIGH	WAY I	NOISE PI	REDICTION	ON MOI	DEL			
Scenario: Year 2016 Road Name: Eastbluff/ Road Segment: West of J	Ford/Bonita Cyr	n			Project I Job Nu	Vame: I				
SITE SPECIFIC I	NPUT DATA				N	DISE N	10DEI	L INPUTS	5	
Highway Data				Site Con	ditions (	Hard =	10, So	ft = 15)		
Average Daily Traffic (Adt):	15,300 vehicle	es				,	Autos:	15		
Peak Hour Percentage:	10%			Me	dium Tru	cks (2 A	xles):	15		
Peak Hour Volume:	1,530 vehicle	es		He	avy Truc	ks (3+ A	xles):	15		
Vehicle Speed:	45 mph		ŀ	Vehicle	Miv					
Near/Far Lane Distance:	52 feet		ŀ		icleType		Day	Evening	Night	Daily
Site Data							77.5%	12.9%	9.6%	,
Barrier Height:	0.0 feet			М	edium Tru	ıcks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0			1	Heavy Tru	icks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet			M-1 0	F1-		. /! 6-	-41		
Centerline Dist. to Observer:	100.0 feet		-	Noise S	ource Ele		•	et)		
Barrier Distance to Observer:	0.0 feet				Autos		000			
Observer Height (Above Pad):	5.0 feet				m Trucks		000	Grade Adj	uotmo nt	
Pad Elevation:	0.0 feet			Heav	y Trucks	8.0	006	Grade Adj	usimeni	. 0.0
Road Elevation:	0.0 feet			Lane Eq	uivalent	Distand	e (in f	eet)		
Road Grade:	0.0%				Autos	96.6	607			
Left View:	-90.0 degre	es		Mediu	m Trucks	96.	566			
Right View:	90.0 degre	es		Heavy Trucks: 96.608						
FHWA Noise Model Calculatio	ns									
VehicleType REMEL	Traffic Flow		tance		Road	Fresn		Barrier Atte		m Atten
Autos: 68.4			-4.3		-1.20		-4.87	0.0		0.00
Medium Trucks: 79.4			-4.3		-1.20		-4.97	0.0		0.000
Heavy Trucks: 84.2			-4.3		-1.20		-5.16	0.0	00	0.000
Unmitigated Noise Levels (wit									_	
		У	Leq E	vening	Leq N	_		Ldn		NEL
VehicleType Leq Peak Ho				59.1		53.0		61.7		62.3
Autos: 6	2.8	60.9								
Autos: 6 Medium Trucks: 5	2.8 6.5	55.0		48.6		47.1		55.6		
Autos: 6 Medium Trucks: 5 Heavy Trucks: 5	2.8									56.6
Autos: 6 Medium Trucks: 5 Heavy Trucks: 5	2.8 6.5 7.4 4.6	55.0 55.9 62.9		48.6 46.9		47.1 48.2		55.6 56.5		56.6
Autos: 6 Medium Trucks: 5 Heavy Trucks: 5 Vehicle Noise: 6	2.8 6.5 7.4 4.6	55.0 55.9 62.9	70	48.6 46.9		47.1 48.2 55.0		55.6 56.5	i	55.8 56.6 64.0
Autos: 6 Medium Trucks: 5 Heavy Trucks: 5 Vehicle Noise: 6	2.8 6.5 7.4 4.6	55.0 55.9 62.9		48.6 46.9 59.7		47.1 48.2 55.0		55.6 56.5 63.6	55	56.6 64.0

Road Nam	o: Year 2016 W e: Macarthur nt: North of Coa	,					: Name: lumber:		С		
	SPECIFIC INF	UT DATA							L INPUT	S	
Highway Data					Site Cor	ditions	(Hard =	: 10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 32	2,500 vehicles	3					Autos:	15		
Peak Hour	Percentage:	10%				dium Tr		/			
Peak H	our Volume: 3	3,250 vehicles	3		He	avy Tru	cks (3+	Axles):	15		
Vei	hicle Speed:	45 mph		F	Vehicle	Mix					
Near/Far Lar	ne Distance:	76 feet				icleType	,	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.429
Par	rier Heiaht:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-W		0.0			1	Heavy T	rucks:	86.5%	2.7%	10.8%	0.749
Centerline Dis	st. to Barrier:	100.0 feet		H	Noise S	ourco E	lovation	e (in f	not)		
Centerline Dist.	to Observer:	100.0 feet		H.	WOISE SI	Auto		.000	et)		
Barrier Distance	to Observer:	0.0 feet			A 4 E -	m Truck		.000			
Observer Height (	Above Pad):	5.0 feet							Crada Ad	iuotmont	
Pa	ad Elevation:	0.0 feet			Heat	y Truck	S: 8	.006	Grade Ad	usunem	. 0.0
Roa	ad Elevation:	0.0 feet			Lane Eq	uivalen	t Distar	ce (in	feet)		
F				Auto	s: 92	.547					
	Left View:	-90.0 degree	s		Mediu	m Truck	s: 92	.504			
	Right View:	90.0 degree	es		Heavy Trucks: 92.547						
FHWA Noise Mode	el Calculations										
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fres	nel	Barrier Att	en Bei	m Atten
Autos:	68.46	3.17		-4.1	1	-1.20		-4.87	0.0	000	0.00
Medium Trucks:	79.45	-14.07		-4.1	1	-1.20		-4.97	0.0	000	0.00
Heavy Trucks:	84.25	-18.03		-4.1	1	-1.20		-5.16	0.0	000	0.00
Unmitigated Noise	Levels (withou	ut Topo and I	barrie	r atten	uation)						
VehicleType	Leq Peak Hour	Leq Day		Leq E	vening	Leq	Night		Ldn	C	NEL
Autos:	66.3		64.4		62.6		56.	-	65.2	-	65.
Medium Trucks:	60.1	-	58.6		52.2		50.		59.1		59.
,		59.5		50.5		51.		60.1		60.	
Vehicle Noise:	68.1	(	66.4		63.3		58.	6	67.1		67.
Centerline Distance to Noise Contour (in feet)								,			
			L		dBA .		dBA	(	60 dBA		dBA
			dn:	6			38		298		343
			Lan: IEL:	6			30 49		320		90

Tuesday, May 29, 2012

	FHV	WA-RD-77-108	HIGHW	AY NO	ISE PR	EDICTIC	N MC	DEL			
Scenario:	Year 2016	With Project				Project N	lame:	NNCP	C		
		ord/Bonita Cyn				Job Nu	mber:	8211			
Road Segment:	East of Jan	nboree									
SITE SF	PECIFIC IN	IPUT DATA				NC	DISE	MODE	L INPUT	S	
Highway Data				Sit	te Cond	ditions (l	lard :	= 10, Sc	oft = 15)		
Average Daily Tr	affic (Adt):	12,300 vehicles	3					Autos:	15		
Peak Hour Pe	ercentage:	10%			Med	dium Truc	ks (2	Axles):	15		
Peak Hou	ır Volume:	1,230 vehicles	3		Hea	avy Truck	s (3+	Axles):	15		
Vehic	cle Speed:	45 mph		Ve	hicle N	Niv					
Near/Far Lane	Distance:	52 feet		Ve		cleType		Day	Evenina	Night	Dailv
Site Data					* 01111		ıtos:	77.5%		9.6%	
Parri	er Height:	0.0 feet			Me	dium Tru	cks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall		0.0			Н	leavy Tru	cks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist.	. ,	100.0 feet									
Centerline Dist. to	Observer:	100.0 feet		No	oise So	urce Ele		_ •	eet)		
Barrier Distance to	Observer:	0.0 feet				Autos:		.000			
Observer Height (All	bove Pad):	5.0 feet				n Trucks:		.000	Grade Ad	liustmont	
Pad	Elevation:	0.0 feet			Heavy	y Trucks:	8	.006	Grade Ad	justrnent	0.0
Road	Elevation:	0.0 feet		La	ne Equ	ıivalent l	Distar	ice (in i	feet)		
Ro	ad Grade:	0.0%				Autos:	96	.607			
	Left View:	-90.0 degree	s		Mediun	n Trucks:	96	.566			
F	Right View:	90.0 degree	s		Heavy	y Trucks:	96	.608			
FHWA Noise Model	Calculation	s									
VehicleType	REMEL	Traffic Flow	Distar	псе	Finite I	Road	Fres	nel	Barrier Att	en Ber	m Atten
Autos:	68.46	-1.05		-4.39		-1.20		-4.87	0.0	000	0.000
Medium Trucks:	79.45	-18.29		-4.39		-1.20		-4.97	0.0	000	0.000
Heavy Trucks:	84.25	-22.25		-4.39		-1.20		-5.16	0.0	000	0.000
Unmitigated Noise L	evels (with	out Topo and	barrier a	attenua	ation)						
VehicleType L	eq Peak Hou	ır Leq Day	Le	eq Eve	ning	Leq N	ight		Ldn	C	VEL
Autos:	61	.8	59.9		58.1		52.	1	60.	7	61.3
Medium Trucks:	55		54.1		47.7		46.	_	54.0	-	54.8
Heavy Trucks:	56		55.0		46.0		47.		55.0	_	55.7
Vehicle Noise:	63	.6	61.9		58.8		54.	1	62.	6	63.1
Centerline Distance	to Noise Co	ontour (in feet)									
	·			70 dB	A	65 di		6	0 dBA		dBA
			Ldn:	32		69			150		22
		CI	IEL:	35		74			160	3	46

	FH\	WA-RD-77-108	HIGH	WAY N	IOISE P	REDICT	ION M	DDEL			
Road Nar	rio: Year 2016 me: Eastbluff/F ent: West of Bo	ord/Bonita Cyn	ı			.,	t Name: lumber:		С		
	SPECIFIC IN	NPUT DATA							L INPUT	S	
Highway Data					Site Cor	nditions	(Hard	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	10,600 vehicle	S					Autos:	15		
Peak Hou	r Percentage:	10%				edium Ti		,	15		
	Hour Volume:	1,060 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
	ehicle Speed:	45 mph		F	Vehicle	Mix					
Near/Far La	ane Distance:	52 feet		T I	Veh	icleTyp	9	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
Ba	arrier Height:	0.0 feet			M	ledium 7	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-V		0.0				Heavy 7	rucks:	86.5%	2.7%	10.8%	0.74%
	ist. to Barrier:	100.0 feet			Noise S	ource E	levatio	ns (in fe	eet)		
Centerline Dist		100.0 feet				Auto	s: 2	.000			
Barrier Distance		0.0 feet			Mediu	m Truck	s: 4	.000			
Observer Height	. ,	5.0 feet			Hea	vy Truck	rs: 8	.006	Grade Ad	justmen	t: 0.0
	Pad Elevation:	0.0 feet		L		·					
Ro	oad Elevation:	0.0 feet		Ľ	Lane Eq				feet)		
	Road Grade:	0.0%				Auto		.607			
	Left View:	-90.0 degre				m Truck		.566			
	Right View:	90.0 degre	es		Hea	vy Truck	rs: 96	6.608			
FHWA Noise Mod	del Calculation	ıs									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten
Autos				-4.3	-	-1.20		-4.87		000	0.000
Medium Trucks				-4.3	-	-1.20		-4.97		000	0.000
Heavy Trucks	84.25	-22.89		-4.3	9	-1.20		-5.16	0.0	000	0.000
Unmitigated Nois			barrie	er atten	uation)						
VehicleType	Leq Peak Hot			Leq E	vening	,	Night		Ldn		NEL
Autos	-		59.3		57.5		51		60.		60.7
Medium Trucks	-	1.9	53.4		47.1		45	-	54.0	-	54.2
Heavy Trucks. Vehicle Noise		5.8	54.3 61.3		45.3		46		54.9		55.0 62.4
		3.0			58.1		53	.4	62.0	J	62.4
Centerline Distar	ice to Noise C	ontour (in feet	)	70.	1BA	65	dBA	-	SO dBA	51	5 dBA
			Ldn:		<i>9</i>		63	1 (	135		292
		_	NFI:	_	-				145		292 313
		C.	VLL.	3	31 67 145						010

Tuesday,	Many	20	2012

Average Daily Traffic (Adt): 5,000 vehicles		FHV	VA-RD-77-108	HIGH	1 YAW	NOISE P	REDICT	ION MO	DDEL				
Average Daily Traffic (Adt): 5,000 vehicles   Peak Hour Percentage: 10%   Store Peak Hour Volume: 500 vehicles   Vehicle Speed: 45 mph Near/Far Lane Distance: 500 vehicles   Vehicle Speed: 45 mph Near/Far Lane Distance: 500 vehicles   Vehicle Speed: 45 mph Near/Far Lane Distance: 500 vehicles   Vehicle Mix   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Mix   Vehicle Mix   Vehicle Mix   Vehicle Mix   Vehicle Mix   Vehicle Mix   Vehicle Mix   Vehicle Mix   Vehicle Mix   Vehicle Mix   Vehicle Mix   Vehicle Type   Day   Evening   Night   Daily   Vehicle Mix   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Night   Nigh	Road Nan	ne: San Joaqui	n Hills							С			
Average Daily Traffic (Adt): 5,000 vehicles	SITE	SPECIFIC IN	PUT DATA								S		
Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15	Highway Data					Site Cor	nditions	(Hard:	= 10, Sc	oft = 15)			
Peak Hour Volume: Vehicle Speed: 45 mph   Near/Far Lane Distance: 76 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Night   Daily   Vehicle Type   Day   Evening   Night   Daily   Night   Night   Night   Night   Night   Night   Night   Night   Night   Night	Average Daily	Traffic (Adt):	5,000 vehicle	S					Autos:	15			
Vehicle Speed:	Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15			
Near/Far Lane Distance: 76 feet   VehicleType   Day   Evening   Night   Daily   VehicleType   Day   Evening   Night   Daily   Site Data   Autos: 77.5%   12.9%   9.6%   97.42%   Medium Trucks: 84.8%   4.9%   10.3%   0.74%   Medium Trucks: 2.000   Medium Trucks: 2.000   Medium Trucks: 4.000   Medium Trucks: 4.000   Medium Trucks: 84.8%   4.9%   0.0%   Medium Trucks: 84.8%   4.9%   0.0%   Medium Trucks: 84.8%   4.9%   0.0%   Medium Trucks: 84.8%   4.9%   0.74%   Medium Trucks: 2.000   Medium Trucks: 84.8%   4.9%   0.0%   Medium Trucks: 84.8%   4.9%   0.0%   Medium Trucks: 84.8%   4.9%   0.0%   Medium Trucks: 92.547   Medium Trucks: 92.548   Medium Trucks: 92.548   Medium Trucks: 92.548   Medium Trucks: 92.549   Medium Truck	Peak F	Hour Volume:	500 vehicle	S		He	avy Tru	cks (3+	Axles):	15			
Near/Far Lane Distance: 76 feet   VehicleType   Day   Evening   Night   Daily	Ve	ehicle Speed:	45 mph			Vehicle	Miv						
Barrier Height:   0.0   feet   Medium Trucks:   84.8%   4.9%   10.3%   18.4%	Near/Far La	ane Distance:	76 feet						Dav	Evenina	Niaht	Dailv	
Heavy Trucks: 86.5% 2.7% 10.8% 0.749   Centerline Dist. to Observer: 100.0 feet Centerline Dist. to Observer: 100.0 feet Barrier Distance to Observer: 100.0 feet Barrier Distance to Observer: 100.0 feet Barrier Distance to Observer: 100.0 feet Barrier Distance to Observer: 100.0 feet Barrier Distance to Observer: 100.0 feet Barrier Distance to Observer: 100.0 feet Barrier Distance to Observer: 100.0 feet Barrier Distance to Observer: 100.0 feet Barrier Distance (in feet)	Site Data									-			
Barrier Type (0-Wall, 1-Berm): 0.0   Centerline Dist. to Barrier: 100.0   feet   Centerline Dist. to Observer: 100.0   feet   Centerline Distance   Centerline Dista	Ra	rrier Height	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.84%	
Centerline Dist. to Observer:   100.0   feet   Autos: 2.000   Autos: 2.000     Autos: 2.000	Barrier Type (0-V	Vall, 1-Berm):	0.0			1	Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%	
Barrier Distance to Observer: 0.0   feet Observer Height (Above Pad): 5.0   feet Pad Elevation: 0.0   feet Road Elevation: 0.0			100.0 feet			Noise S	ource E	levatio	ns (in f	eet)			
Observer Height (Above Pad):   5.5   feet Pad Elevation:   0.0   feet Road Elevation:   0.0   feet Road Elevation:   0.0   feet Road Elevation:   0.0   feet Road Elevation:   0.0   feet Road Grade:   0.0%							Auto	s: 2	.000				
Pad Elevation:						Mediu	m Truck	s: 4	.000				
Pad Elevation:		,,				Hear	v Truck	s: 8	.006	Grade Adj	iustment	t: 0.0	
Road Grade:					-		•						
Left View:		0.0 1001								reet)			
FRIght View: 90.0 degrees   Heavy Trucks: 92.547													
VehicleType		Right View:	90.0 degre	es		Hea	у тиск	S: 92	.547				
Autos:         68.46         -4.96         -4.11         -1.20         -4.87         0.000         0.00           Medium Trucks:         79.45         -22.20         -4.11         -1.20         -4.97         0.000         0.00           Unmitigated Noise Levels: (without Topo and barrier attenuation)         VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         58.2         56.3         54.5         48.5         57.1         57.           Medium Trucks:         51.9         50.4         44.1         42.5         51.0         51.9           Heavy Trucks:         52.8         51.4         42.3         43.6         51.9         52.           Vehicle Noise:         60.0         58.3         55.1         50.4         59.0         59.           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         18         40         86         185													
Medium Trucks: 79.45				Dis				Fres	-				
Heavy Trucks: 84.25   -26.16   -4.11   -1.20   -5.16   0.000   0.00						•							
Unmitigated Noise Levels (without Topo and barrier attenuation)   VehicleType   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNEL   Autos: 58.2   56.3   54.5   48.5   57.1   57.7   Medium Trucks: 51.9   50.4   44.1   42.5   51.0   51.1   Heavy Trucks: 52.8   51.4   42.3   43.6   51.9   52.2   Vehicle Noise: 60.0   58.3   55.1   50.4   59.0   59.2   Centerline Distance to Noise Contour (In feet)   70 dBA   65 dBA   60 dBA   55 dBA   Ldn:   18   40   86   185						•							
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         58.2         56.3         54.5         48.5         57.1         57.           Medium Trucks:         51.9         50.4         44.1         42.5         51.0         51.           Heavy Trucks:         52.8         51.4         42.3         43.6         51.9         52.           Vehicle Noise:         60.0         58.3         55.1         50.4         59.0         59.           Centerline Distance to Noise Contour (in feet)           Ldn:         18         40         86         185						•	-1.20		-5.16	0.0	000	0.000	
Autos:         58.2         56.3         54.5         48.5         57.1         57.           Medium Trucks:         51.9         50.4         44.1         42.5         51.0         51.           Heavy Trucks:         52.8         51.4         42.3         43.6         51.9         52.           Vehicle Noise:         60.0         58.3         55.1         50.4         59.0         59.           Centerline Distance to Noise:         60.0         58.3         55.1         60.4         50.0         59.0           Ldn:         18         40         86         185			-				100	Night	1	l dn		NEI	
Medium Trucks:         51.9         50.4         44.1         42.5         51.0         51.           Heavy Trucks:         52.8         51.4         42.3         43.6         51.9         52.           Vehicle Noise:         60.0         58.3         55.1         50.4         59.0         59.0           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         18         40         86         185	,,				Ley L				5				
Heavy Trucks:								-			51.3		
Vehicle Noise:         60.0         58.3         55.1         50.4         59.0         59.           Centerline Distance to Noise Contour (in feet)           70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         18         40         86         185								-			52.		
70 dBA 65 dBA 60 dBA 55 dBA Ldn: 18 40 86 185											59.4		
Ldn: 18 40 86 185	Centerline Distan	ce to Noise Co	ntour (in feet	)									
				L					- (				
CNEL: 20 43 92 198						-							
			C	NEL:	2	20	4	13		92	1	198	

Scenario: Year 2016 With Project Road Name: EastbluffFord/Bonita Cyn Road Segment: East of Bonita Canyon
Mighway Data
Average Daily Traffic (Adt): 39,400 vehicles   Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15
Peak Hour Percentage:
Peak Hour Volume: Vehicle Speed:   45 mph   Vehicle Mix
Vehicle Speed:   45 mph   Site Data
Near/Far Lane Distance:   52 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Dail
Near/Far Lane Distance:   52 feet   VehicleType   Day   Evening   Night   Dail
Barrier Height:   0.0   feet
Barrier Type (0-Wall, 1-Berm): 0.0   Gent
Barrier Type (0-Wall, 1-Bern): 0.0   Heavy Trucks: 86.5% 2.7% 10.8% 0.74
Centerline Dist. to Observer:   100.0   feet   2.00     Autos: 2.000     tos: 2.000   Autos
Autos: 2.000   Barrier Atten
Observer Height (Above Pad):   5.0   feet   Heavy Trucks:   8.006   Grade Adjustment: 0.0
Pad Elevation:   0.0   feet
Pad Elevation: 0.0 feet
Road Grade:
Left View: -90.0 degrees   Medium Trucks: 96.566     Right View: 90.0 degrees   Heavy Trucks: 96.608
Right View: 90.0 degrees   Heavy Trucks: 96.608
FHWA Noise Model Calculations   VehicleType   REMEL   Traffic Flow   Distance   Finite Road   Fresnel   Barrier Atten   Berm Atte   Autos: 68.46   4.00   4.39   1.20   4.87   0.000   0.0   Medium Trucks: 79.45   -13.23   -4.39   -1.20   -4.97   0.000   0.0   Medium Trucks: 84.25   -17.19   -4.39   -1.20   -5.16   0.000   0.0   Unmitigated Noise Levels (without Topo and barrier attenuation)
VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Freshel         Barrier Atten         Bern Atte           Autos:         68.46         4.00         -4.39         -1.20         -4.87         0.000         0.0           Medium Trucks:         79.45         -13.23         -4.39         -1.20         -4.97         0.000         0.0           Heavy Trucks:         84.25         -17.19         -4.39         -1.20         -5.16         0.000         0.0           Unmitigated Noise Levels (without Topo and barrier attenuation)
Autos:         68.46         4.00         -4.39         -1.20         -4.87         0.000         0.0           Medium Trucks:         79.45         -13.23         -4.39         -1.20         -4.97         0.000         0.0           Heavy Trucks:         84.25         -17.19         -4.39         -1.20         -5.16         0.000         0.0           Unmitigated Noise Levels (without Topo and barrier attenuation)
Medium Trucks:     79.45     -13.23     -4.39     -1.20     -4.97     0.000     0.0       Heavy Trucks:     84.25     -17.19     -4.39     -1.20     -5.16     0.000     0.0       Unmitigated Noise Levels (without Topo and barrier attenuation)
Heavy Trucks: 84.25 -17.19 -4.39 -1.20 -5.16 0.000 0.0 Unmitigated Noise Levels (without Topo and barrier attenuation)
Unmitigated Noise Levels (without Topo and barrier attenuation)
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         66.9         65.0         63.2         57.2         65.8         6
Autos: 66.9 65.0 63.2 57.2 65.8 6 Medium Trucks: 60.6 59.1 52.8 51.2 59.7 50
Heavy Trucks:         61.5         60.0         51.0         52.3         60.6         6           Vehicle Noise:         68.7         67.0         63.8         59.1         67.7         6
Centerline Distance to Noise Contour (in feet)
70 dBA 65 dBA 60 dBA 55 dBA
Ldn: 70 151 325 700
2011. 10 101 020 100

	FHV	VA-RD-77-108 I	HIGHWAY	NOISE P	REDICTIO	N MODEL							
	o: Year 2016 ' e: San Joaqui nt: East of Jan	n Hills			.,	lame: NNC mber: 8211	PC						
SITE S	SPECIFIC IN	IPUT DATA			NC	ISE MOD	EL INPUTS						
Highway Data				Site Cor	nditions (F	lard = 10, 3	Soft = 15)						
Average Daily	Traffic (Adt): 2	20,400 vehicles				Auto	s: 15						
Peak Hour	Percentage:	10%		Me	edium Truc	ks (2 Axles	): 15						
Peak H	our Volume:	2,040 vehicles		He	avy Truck	s (3+ Axles	): 15						
Vel	hicle Speed:	45 mph		Vehicle	8.61								
Near/Far Lar	ne Distance:	76 feet				Dav	Evening N	light Daily					
Site Data				ver	nicleType	tos: 77.5	-	9.6% 97.42%					
					edium Tru			10.3% 1.84%					
	rier Height:	0.0 feet			ealaini Tru Heavv Tru			10.8% 0.74%					
Barrier Type (0-Wa	. ,	0.0			leavy IIu	LNS. 00.J	/0 2.1 /0	10.076 0.7476					
Centerline Dist. t		100.0 feet		Noise S	Noise Source Elevations (in feet)								
		100.0 feet			Autos:	2.000							
Barrier Distance t		0.0 feet		Mediu	m Trucks:	4.000							
Observer Height (	Above Paa): nd Flevation:	5.0 feet		Hear	vy Trucks:	8.006	Grade Adjus	tment: 0.0					
	nd Elevation:	0.0 feet 0.0 feet		I ano Fo	uivəlent l	Distance (in	foot)						
	Road Grade:	0.0 reet 0.0%		Luite Lq	Autos:		11000)						
,	l eft View:	-90.0 degree		Mediu	m Trucks:								
	Right View:	90.0 degree			vy Trucks:	92.547							
			3	7100	y muono.	02.017							
FHWA Noise Mode													
VehicleType	REMEL	Traffic Flow	Distance		Road	Fresnel	Barrier Atten						
Autos:	68.46	1.15		.11	-1.20	-4.87							
Medium Trucks:	79.45	-16.09		.11	-1.20	-4.9							
Heavy Trucks:	84.25	-20.05		.11	-1.20	-5.10	0.000	0.000					
Unmitigated Noise													
	Leq Peak Hοι			Evening	Leq N	•	Ldn	CNEL					
Autos:	64		52.4	60.6		54.6	63.2	63.8					
Medium Trucks:	58		6.5	50.2		48.6	57.1	57.3					
Heavy Trucks:	58		7.5	48.4		49.7	58.0	58.2					
Vehicle Noise:	66	.1 6	64.4	61.2		56.6	65.1	65.6					
Centerline Distance	e to Noise Co	ontour (in feet)		0 -/D4	05.4		00 404	EE -IDA					
		,	dn:	0 dBA 47	65 dE		60 dBA 219	55 dBA 471					
		_	.an: IFI :	47 51	102	-	219	4/1 505					
		CN	EL:	01	109	,	∠35	505					

FH	WA-RD-77-108	HIGH	IWAY N	OISE P	REDICT	ION M	ODEL			
Scenario: Year 2016 Road Name: San Joaqu Road Segment: West of Sa	in Hills					t Name. lumber.	: NNCP	С		
SITE SPECIFIC IN	NPUT DATA				1	VOISE	MODE	L INPUT	S	
Highway Data			5	Site Cor	nditions	(Hard	= 10, Sc	oft = 15)		
Average Daily Traffic (Adt):	23,700 vehicle	S					Autos:	15		
Peak Hour Percentage:	10%			Me	edium Ti	rucks (2	Axles):	15		
Peak Hour Volume:	2,370 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Vehicle Speed:	45 mph		1	/ehicle	Mix					
Near/Far Lane Distance:	76 feet			Veh	icleTyp	9	Day	Evening	Night	Daily
Site Data						Autos:	77.5%	12.9%	9.6%	97.42%
Barrier Height:	0.0 feet			M	ledium 7	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0				Heavy 7	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet		,	loise S	ource E	levatio	ns (in fe	eet)		
Centerline Dist. to Observer:	100.0 feet				Auto		2.000	,		
Barrier Distance to Observer:	0.0 feet			Mediu	m Truck	(S: 4	1.000			
Observer Height (Above Pad):	5.0 feet			Hea	vy Truck	s: 8	3.006	Grade Ad	justment	: 0.0
Pad Elevation:	0.0 feet									
Road Elevation:	0.0 feet			ane Eq			nce (in t	feet)		
	Road Grade: 0.0%				Auto		2.547			
Left View:	-90.0 degree				m Truck		2.504			
Right View:	90.0 degree	es		Hea	vy Truck	is: 92	2.547			
FHWA Noise Model Calculation	ıs									
VehicleType REMEL	Traffic Flow	Dis	tance		Road	Fres		Barrier Att	en Bei	rm Atten
Autos: 68.46			-4.11		-1.20		-4.87		000	0.000
Medium Trucks: 79.45			-4.11		-1.20		-4.97		000	0.000
Heavy Trucks: 84.25	-19.40		-4.11		-1.20		-5.16	0.0	000	0.000
Unmitigated Noise Levels (with		_							1	
VehicleType Leq Peak Ho			Leg Ev		,	Night		Ldn		NEL
		63.0		61.3		55	-	63.8	-	64.5
		57.2		50.8		49		57.		58.0
		58.1 65.0		49.1 61.9		50 57		58.7 65.7		58.8 66.2
Centerline Distance to Noise C				01.5		31	.2	00.	•	00.2
Centernine Distance to Noise C	ontour (III leet		70 a	IBA	65	dBA	6	i0 dBA	55	dBA
		Ldn:	52	2	1	12		242		521
	CI	NEL:	56	6	1	20		259	5	559

	FHW	A-RD-77-108	HIGH	A YAWI	IOISE PI	REDICTI	ON MOI	DEL			
Scenario: Road Name: Road Segment:		Hills				Project Job No	Name: I umber: 8		С		
SITE SP	ECIFIC INF	PUT DATA				N	OISE N	10DE	L INPUTS	5	
Highway Data					Site Con	ditions (	Hard =	10, S	oft = 15)		
Average Daily Tra	affic (Adt): 1	7,300 vehicles	S				,	Autos:	15		
Peak Hour Pe	rcentage:	10%			Me	dium Tru	icks (2 A	(xles	15		
Peak Hou	r Volume:	1,730 vehicles	S		He	avy Truc	ks (3+ A	lxles):	15		
Vehic	le Speed:	45 mph		-	Vehicle	Miv					
Near/Far Lane	Distance:	76 feet		H		icleType		Day	Evening	Night	Daily
Site Data								77.5%	Ü	9.6%	
Rarrio	er Height:	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall,		0.0			1	leavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist.		100.0 feet		_							
Centerline Dist. to		100.0 feet			Noise S			•	eet)		
Barrier Distance to	Observer:	0.0 feet				Autos		000			
Observer Height (Ab	ove Pad):	5.0 feet				m Trucks		000	0		
	Elevation:	0.0 feet			Heav	y Trucks	: 8.0	006	Grade Adj	ustment	0.0
Road	Elevation:	0.0 feet			Lane Eq	uivalent	Distanc	e (in	feet)		
Roa	ad Grade:	0.0%				Autos	: 92.	547			
	Left View:	-90.0 degree	es		Mediu	m Trucks	: 92.	504			
R	ight View:	90.0 degree	es		Heav	y Trucks	: 92.	547			
FHWA Noise Model (	Calculations										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresn	el	Barrier Atte	en Ber	m Atten
Autos:	68.46	0.43		-4.1		-1.20		-4.87	0.0		0.00
	79.45	-16.81		-4.1		-1.20		-4.97	0.0	00	0.000
Medium Trucks:											
Medium Trucks: Heavy Trucks:	84.25	-20.76		-4.1		-1.20		-4.97 -5.16	0.0	00	0.000
Heavy Trucks:	84.25	-20.76	barri	-4.1	1				0.0		
Heavy Trucks:  Unmitigated Noise Lower Low	84.25 evels (witho	-20.76 ut Topo and Leq Day	,	-4.1	1 nuation) vening		Vight	-5.16	0.0	C	VEL
Heavy Trucks:  Unmitigated Noise Lower Vehicle Type Legal Le	84.25 evels (without eq Peak Hour 63.6	-20.76 ut Topo and Leq Day	61.7	-4.1 er atten	nuation) vening 59.9	-1.20	Vight 53.9	-5.16	0.0 Ldn 62.5	C	NEL 63.1
Heavy Trucks:  Unmitigated Noise Le  VehicleType Le  Autos:  Medium Trucks:	84.25 evels (without eq Peak Hour 63.6 57.3	-20.76  ut Topo and  Leq Day	61.7 55.8	-4.1 er atten	nuation) vening 59.9 49.5	-1.20	Vight 53.9 47.9	-5.16	0.0 Ldn 62.5 56.4	C	NEL 63.1 56.6
Heavy Trucks:  Unmitigated Noise L.  VehicleType Le  Autos:  Medium Trucks:  Heavy Trucks:	84.25 evels (without eq Peak Hour 63.6 57.3 58.2	-20.76  ut Topo and Leq Day	61.7 55.8 56.8	-4.1 er atten	nuation) vening 59.9 49.5 47.7	-1.20	Vight 53.9 47.9 49.0	-5.16	0.0 Ldn 62.5 56.4 57.3	C	VEL 63.1 56.6 57.4
Heavy Trucks:  Unmitigated Noise L VehicleType Le Autos:  Medium Trucks: Heavy Trucks: Vehicle Noise:	84.25 evels (without eq Peak Hour 63.6 57.3 58.2	-20.76  ut Topo and Leq Day	61.7 55.8 56.8 63.7	-4.1 er atten	nuation) vening 59.9 49.5	-1.20	Vight 53.9 47.9	-5.16	0.0 Ldn 62.5 56.4	C	VEL 63.1 56.6 57.4
Heavy Trucks:  Unmitigated Noise L.  VehicleType Le  Autos:  Medium Trucks:  Heavy Trucks:	84.25 evels (without eq Peak Hour 63.6 57.3 58.2	-20.76  ut Topo and Leq Day	61.7 55.8 56.8 63.7	-4.1 er atten Leq E	nuation) vening 59.9 49.5 47.7	-1.20	Vight 53.9 47.9 49.0 55.8	-5.16	0.0 Ldn 62.5 56.4 57.3	Ci	0.000 VEL 63.1 56.6 57.4 64.8
Heavy Trucks:  Unmitigated Noise L.  VehicleType Le  Autos:  Medium Trucks:  Heavy Trucks:  Vehicle Noise:	84.25 evels (without eq Peak Hour 63.6 57.3 58.2	-20.76  ut Topo and  Leq Day  3  3  2  4  ntour (in feet	61.7 55.8 56.8 63.7	-4.1 er atten Leq E	1 nuation) vening 59.9 49.5 47.7 60.5	-1.20	Vight 53.9 47.9 49.0 55.8	-5.16	0.0 Ldn 62.5 56.4 57.3 64.4	C:	NEL 63.1 56.6 57.4 64.8

	FHV	VA-RD-77-108	HIGH	NAY N	OISE P	REDICT	ION M	ODEL			
	o: Year 2016 \ e: San Joaqui at: East of San	n Hills				.,	Name: lumber:	NNCP 8211	С		
SITE S	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data				5	Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt): 1	15,000 vehicle	S					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15		
Peak H	our Volume:	1,500 vehicle	S		He	eavy Tru	cks (3+	Axles):	15		
Vel	nicle Speed:	45 mph		1	/ehicle	Mix					
Near/Far Lar	ne Distance:	76 feet		H.		icleType	,	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42
Rar	rier Heiaht:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-Wi		0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.749
Centerline Dis	t. to Barrier:	100.0 feet		1	Voise S	ource E	levatio	ns (in f	eet)		
Centerline Dist. t	o Observer:	100.0 feet				Auto		2.000	,		
Barrier Distance t		0.0 feet			Mediu	m Truck	s: 4	1.000			
Observer Height (/	Above Pad):	5.0 feet				vy Truck		3.006	Grade Ad	iustment	0.0
Pa	d Elevation:	0.0 feet		L							
Roa	d Elevation:	0.0 feet		L	.ane Eq	uivalen		_ •	feet)		
F	Road Grade:	0.0%				Auto		2.547			
	Left View:	-90.0 degre	es			m Truck		2.504			
	Right View:	90.0 degre	es		Hea	vy Truck	s: 92	2.547			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dist	ance		Road	Fres		Barrier Att	en Ber	m Atten
Autos:	68.46	-0.19		-4.11		-1.20		-4.87		000	0.00
Medium Trucks:	79.45	-17.43		-4.11		-1.20		-4.97		000	0.00
Heavy Trucks:	84.25	-21.38		-4.11		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise							N.Clet		Late	-	
VehicleType Autos:	Leq Peak Hou 63		61.1	Leq Ev	ening 59.3		Night 53	2	Ldn 61.9		VEL 62.
Medium Trucks:	56		55.2		59.3 48.8		53 47	-	55.8	-	56.
Heavy Trucks:	57		56.1		40.0		48		56.7	-	56.
Vehicle Noise:	64		63.0		59.9		55		63.8		64
Centerline Distanc	e to Noise Co	ntour (in feet	)								
		,		70 a			dBA	(	60 dBA		dBA
			Ldn:	38	3	8	33		178	3	84
			NFI:	4			39		191		12

Tuesday, May 29, 2012

	FH	IWA-RD	-77-108	HIGH	WAY	NOISE P	REDICTI	ON M	ODEL				
Road Na	nrio: Year 2016 me: San Joaqu ent: East of Sa	uin Hills	•				Project Job Ni			C			
	SPECIFIC I	NPUT [	DATA							L INPUT	S		
Highway Data						Site Cor	nditions	(Hard	= 10, S	oft = 15)			
Average Daily	Traffic (Adt):	22,900	vehicles						Autos:	15			
Peak Hou	r Percentage:	109	%				edium Tru						
Peak	Hour Volume:	2,290	vehicles			He	eavy Truc	ks (3+	- Axles):	15			
ν	ehicle Speed:	45	mph		F	Vehicle	Mix						
Near/Far L	ane Distance:	76	feet		f		nicleType		Dav	Evening	Night	Daily	
Site Data								utos:	77.5%		9.6%	,	
R	arrier Height:	0.0	) feet			M	ledium Tr	ucks:	84.8%	4.9%	10.3%	1.84%	
Barrier Type (0-1		0.0					Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.74%	
Centerline E	ist. to Barrier:	100.0	) feet		-	Noise S	ource Ele	evatio	ns (in f	eet)			
Centerline Dist	t. to Observer:	100.0	) feet		F	110,000	Autos		2.000	001)			
Barrier Distance	e to Observer:	0.0	) feet			Modii	m Trucks		4.000				
Observer Height	(Above Pad):	5.0	) feet				vy Trucks		3.006	Grade Ad	iustmen	t: 0.0	
ı	Pad Elevation:	0.0	) feet			7100	vy mucho		5.000				
R	oad Elevation:	0.0	) feet			Lane Eq	uivalent			feet)			
	Road Grade:	0.0	)%				Autos		2.547				
	Left View:	-90.0	) degree	S		Mediu	m Trucks		2.504				
	Right View:	90.0	) degree	s		Hea	vy Trucks	: 9:	2.547				
FHWA Noise Mo	del Calculatio	ns											
VehicleType	REMEL	Traffic	Flow	Dis	tance	Finite	Road	Fre	snel	Barrier Att	en Be	rm Atten	
Autos	: 68.46	6	1.65		-4.1	1	-1.20		-4.87	0.0	000	0.000	
Medium Trucks	79.45	5	-15.59		-4.1	11	-1.20		-4.97	0.0	000	0.000	
Heavy Trucks	84.25	5	-19.55		-4.1	1	-1.20		-5.16	0.0	000	0.000	
Unmitigated Nois	se Levels (wit	hout To	po and l	barrie	er atte	nuation)							
VehicleType	Leq Peak Ho	our I	Leq Day		Leq E	vening	Leq I	Vight		Ldn	C	NEL	
Autos	: 6	4.8	ε	32.9		61.1		55	i.1	63.7	7	64.3	
Medium Trucks	: 5	8.5	5	57.0		50.7		49	1.1	57.6	6	57.8	
Heavy Trucks		9.4		0.88		48.9		50		58.5		58.7	
Vehicle Noise	: 6	6.6	ε	64.9		61.7		57	'.1	65.6	6	66.1	
Centerline Dista	nce to Noise C	ontour	(in feet)										
						dBA	65 (			60 dBA		5 dBA	
			_	dn:		51	11	-		236		509	
			CN	IEL:		55	11	8		253		546	

	FH\	WA-RD-77-108	HIGH	HWAY I	NOISE P	REDICT	ION MC	DEL			
Road Nar	rio: Year 2016 ne: San Joaqui ent: West of Ma	in Hills					t Name: lumber:		С		
SITE	SPECIFIC IN	IPUT DATA				1	NOISE	MODE	L INPUT	S	
Highway Data					Site Cor	nditions	(Hard =	: 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	23,600 vehicle	s					Autos:	15		
Peak Hou	Percentage:	10%			Me	edium Ti	ucks (2	Axles):	15		
Peak I	Hour Volume:	2,360 vehicle	s		He	avy Tru	cks (3+	Axles):	15		
Ve	ehicle Speed:	45 mph		H	Vehicle	Mix					
Near/Far La	ane Distance:	76 feet				icleTyp	e	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	6 97.42%
Ba	rrier Height:	0.0 feet			М	edium 7	rucks:	84.8%	4.9%	10.39	6 1.84%
Barrier Type (0-V		0.0				Heavy T	rucks:	86.5%	2.7%	10.89	6 0.74%
	ist. to Barrier:	100.0 feet		ľ	Noise S	ource E	levation	ıs (in fe	eet)		
Centerline Dist.		100.0 feet		İ		Auto	s: 2	.000			
Barrier Distance		0.0 feet			Mediu	m Truck	s: 4	.000			
Observer Height	,,	5.0 feet			Hear	y Truck	s: 8	.006	Grade Ad	iustmer	t: 0.0
-	Pad Elevation:	0.0 feet		-							
Ro	ad Elevation:	0.0 feet		-	Lane Eq			_ •	eet)		
	Road Grade:	0.0%				Auto		.547			
	Left View:	-90.0 degre				m Truck		.504			
	Right View:	90.0 degre	es		Hea	y Truck	s: 92	.547			
FHWA Noise Mod	lel Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Be	erm Atten
Autos		1.78		-4.1		-1.20		-4.87		000	0.000
Medium Trucks:		-15.46		-4.1		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25	-19.42		-4.1	1	-1.20		-5.16	0.0	000	0.000
Unmitigated Nois								,		,	
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		CNEL
Autos:	-		63.0		61.3		55.	_	63.8		64.4
Medium Trucks:			57.2		50.8		49.	-	57.		58.0
Heavy Trucks: Vehicle Noise:			58.1 65.0		49.1 61.9		50. 57.		58.7 65.7		58.8 66.2
Centerline Distan					01.5		51.		00.		00.2
Centernile Distan	ice to Moise Co	ontour (III leet	,	70	dBA	65	dBA	6	i0 dBA	5	5 dBA
			Ldn:	Ę	52	1	12		241		519
		C	NEL:	5	66	1	20		259		557

Tuesday,	Many	20	2012

	FHV	VA-RD-77-108	HIGH	HWAY N	OISE P	REDICT	ION M	ODEL			
Road Nam	o: Year 2016 e: San Cleme nt: East of Sar	nte					t Name. Jumber.		С		
SITE S	SPECIFIC IN	IPUT DATA				1	NOISE	MODE	L INPUT	S	
Highway Data				5	Site Cor	nditions	(Hard	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	5,700 vehicle	es.					Autos:	15		
Peak Hour	Percentage:	10%			Me	edium Ti	ucks (2	Axles):	15		
Peak H	our Volume:	570 vehicle	:S		He	eavy Tru	cks (3+	Axles):	15		
Vei	hicle Speed:	40 mph		,	/ehicle	Miv					
Near/Far Lai	ne Distance:	36 feet		,		icleType	е	Day	Evening	Night	Daily
Site Data							Autos:	77.5%		9.6%	
Rai	rier Height:	0.0 feet			М	ledium 7	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W	all, 1-Berm):	0.0				Heavy 7	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis		100.0 feet		٨	Voise S	ource E	levatio	ns (in f	eet)		
Centerline Dist.		100.0 feet				Auto	s: 2	2.000			
Barrier Distance		0.0 feet			Mediu	m Truck	(S: 4	1.000			
Observer Height (	,	5.0 feet			Hear	vy Truck	rs: 8	3.006	Grade Adj	iustment	: 0.0
	d Elevation:	0.0 feet					4 Di-4-	//	64)		
	d Elevation:	0.0 feet			.ane Eq	uivalen			reet)		
ŀ	Road Grade:	0.0%				Auto m Truck		3.412 3.372			
	Left View: Right View:	-90.0 degre 90.0 degre				m Truck vy Truck		3.372 3.413			
						.,					
FHWA Noise Mode			- n-		1				5		***
VehicleType Autos:	REMEL 66.51	Traffic Flow -3.88		stance -4.51		Road -1.20	Fres	-4.87	Barrier Att	en Ber 000	m Atten 0.00
Medium Trucks:	77.72	-21.12		-4.51		-1.20		-4.97		000	0.000
Heavy Trucks:	82.99	-25.07		-4.51		-1.20		-5.16		000	0.000
Unmitigated Noise	Levels (with	out Topo and	barri	er atteni	uation)						
VehicleType	Leq Peak Hou	ır Leq Day	V	Leq Ev	ening	Leq	Night		Ldn	C	NEL
Autos:	56	.9	55.0		53.3		47	.2	55.8	3	56.4
Medium Trucks:	50	.9	49.4		43.0		41	.5	49.9	9	50.2
Heavy Trucks:	52	.2	50.8		41.7		43	.0	51.4		51.
Vehicle Noise:	58	.9	57.2		53.9		49	.4	57.9	)	58.
Centerline Distance	e to Noise Co	ontour (in feet	t)			T					
			1 -1	70 d			dBA		50 dBA		dBA
		_	Ldn:	16	-		34		72		156
		C	NEL:	17	,		36		78	1	167

	FH\	WA-RD-77-108	HIGH	IWAY N	IOISE PI	REDICT	ION M	ODEL			
	o: Year 2016					.,		NNCF	C		
	e: San Joaqu					Job N	lumber.	8211			
Road Segmer											
	SPECIFIC IN	IPUT DATA			o:. o				L INPUT	S	
Highway Data					Site Cor	aitions	(Hard		oft = 15)		
Average Daily			S					Autos			
	Percentage:	10%				dium Tr					
	our Volume:	2,130 vehicle	S		He	avy Tru	CKS (3+	Axies)	15		
	hicle Speed:	45 mph		1	Vehicle	Mix					
Near/Far Lar	ne Distance:	76 feet			Veh	icleType	Э	Day	Evening	Night	Daily
Site Data							Autos:	77.5%		9.6%	97.42%
Bar	rier Height:	0.0 feet				edium T		84.89		10.3%	
Barrier Type (0-W	all, 1-Berm):	0.0			- 1	Heavy T	rucks:	86.5%	6 2.7%	10.8%	0.74%
Centerline Dis	t. to Barrier:	100.0 feet			Noise S	ource F	levatio	ns (in t	ipet)		
Centerline Dist.	to Observer:	100.0 feet		F.	10.00 0	Auto		2.000	001)		
Barrier Distance	to Observer:	0.0 feet			Mediu	m Truck		1.000			
Observer Height (	Above Pad):	5.0 feet				vy Truck		3.006	Grade Ad	liustment	: 0.0
	d Elevation:	0.0 feet		_						,	
	d Elevation:	0.0 feet		1	Lane Eq				feet)		
F	Road Grade:	0.0%				Auto		2.547			
	Left View:	-90.0 degree				m Truck		2.504			
	Right View:	90.0 degree	es		Heav	y Truck	s: 92	2.547			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fres		Barrier Att		m Atten
Autos:	68.46	1.33		-4.11		-1.20		-4.87		000	0.000
Medium Trucks:	79.45			-4.11		-1.20		-4.97		000	0.000
Heavy Trucks:	84.25			-4.11	-	-1.20		-5.16	0.0	000	0.000
Unmitigated Noise VehicleType	Leq Peak Ho			er atten Leg Ev		Lea	Night	_	Ldn		NEL
Autos:			62.6	Log L.	60.8	204	54	. 8	63.4		64.0
Medium Trucks:	58	1.2	56.7		50.4		48	.8	57.	3	57.5
Heavy Trucks:	59	0.1	57.7		48.6		49	.9	58.	2	58.4
Vehicle Noise:	66	6.3	64.6		61.4		56	.7	65.	3	65.7
Centerline Distance	e to Noise C	ontour (in feet	)								
				70 c	IBA	65	dBA		60 dBA	55	dBA
			Ldn:	4	-		04		225		185
		CI	VEL:	5	2	1	12		241		520

Tuesday, May 29, 2012

FH	WA-RD-77-108 H	HIGHWAY	NOISE P	REDICTIO	N MODEL			
Scenario: Year 2016	With Project			Project N	lame: NNCI	PC		
Road Name: San Cleme					mber: 8211			
Road Segment: West of Sa	anta Cruz							
SITE SPECIFIC II	NPUT DATA				ISE MOD		S	
Highway Data			Site Con	ditions (F	lard = 10, S	Soft = 15)		
Average Daily Traffic (Adt):	5,900 vehicles				Autos	: 15		
Peak Hour Percentage:	10%		Me	dium Truc	ks (2 Axles)	): 15		
Peak Hour Volume:	590 vehicles		He	avy Truck	s (3+ Axles,	): 15		
Vehicle Speed:	40 mph		Vehicle I	Mix				
Near/Far Lane Distance:	36 feet			icleType	Day	Evening	Night	Daily
Site Data				AL	tos: 77.5°	% 12.9%	9.6%	97.42%
Barrier Height:	0.0 feet		Me	edium Tru	cks: 84.8°	% 4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0		F	leavy Tru	cks: 86.5°	% 2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet		Noise So	ource Ele	vations (in	feet)		
Centerline Dist. to Observer:	100.0 feet			Autos:		,		
Barrier Distance to Observer:	0.0 feet		Mediu	n Trucks:				
Observer Height (Above Pad):	5.0 feet			v Trucks:	8.006	Grade Ad	liustment	0.0
Pad Elevation:	0.0 feet			-			,	
Road Elevation:	0.0 feet		Lane Eq	uivalent l	Distance (in	feet)		
Road Grade:	0.0%			Autos:				
Left View:	-90.0 degrees	S		n Trucks:				
Right View:	90.0 degrees	s	Heav	y Trucks:	98.413			
FHWA Noise Model Calculation	15		1					
VehicleType REMEL	Traffic Flow	Distance		Road	Fresnel	Barrier Att		m Atten
Autos: 66.51		-4.	.51	-1.20	-4.87	0.0	000	0.000
Medium Trucks: 77.72		-4.		-1.20	-4.97		000	0.000
Heavy Trucks: 82.99	-24.93	-4.	.51	-1.20	-5.16	0.0	000	0.000
Unmitigated Noise Levels (with					,			
VehicleType Leq Peak Ho			Evening	Leq N	•	Ldn		VEL
		5.2	53.4		47.3	56.0	-	56.6
		9.5	43.2		41.6	50.		50.3
	2.4 5	0.9	41.9		43.1	51.	-	51.6
		7.3	54.1		49.5	58.	1	58.5
Vehicle Noise: 5		77.0						
Vehicle Noise: 5			2 404	05. "	24	00 dD4		-/D.4
	contour (in feet)	70	) dBA	65 di	ВА	60 dBA		dBA
Vehicle Noise: 5	contour (in feet)		0 dBA 16 17	65 di 34	ВА	60 dBA 74 79	1	<i>dBA</i> 60 71

	FH\	WA-RD-77-108	HIGHV	VAY NO	DISE PE	REDICT	ION M	DDEL			
Road Nan	rio: Year 2016 ne: Santa Barb ent: West of Ja	ara					t Name. lumber.	NNCP 8211	C		
	SPECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				S	ite Con	ditions	(Hard	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	2,300 vehicle	S					Autos:	15		
Peak Hour	Percentage:	10%						Axles):	15		
Peak F	Hour Volume:	230 vehicle	S		He	avy Tru	cks (3+	Axles):	15		
Ve	ehicle Speed:	40 mph		ν	ehicle i	Wix					
Near/Far La	ne Distance:	36 feet			Veh	icleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
Ba	rrier Heiaht:	0.0 feet			Me	edium 7	rucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-V	Vall, 1-Berm):	0.0			F	leavy 7	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Di		100.0 feet		Ν	loise So	urce E	levatio	ns (in fe	eet)		
Centerline Dist.		100.0 feet				Auto	s: 2	2.000			
Barrier Distance		0.0 feet			Mediui	n Truck	(S: 4	.000			
Observer Height	. ,	5.0 feet			Heav	y Truck	rs: 8	3.006	Grade Ad	justmen	t: 0.0
	ad Elevation:	0.0 feet					4 Di-4-	//	r4)		
	ad Elevation:	0.0 feet		L	ane Eq			nce (in 1 3.412	eet)		
	Road Grade:	0.0%				Auto n Truck		3.412			
	Left View:	-90.0 degre				n Truck y Truck		3.372			
	Right View:	90.0 degre	es		пеач	y Truck	18. 90	0.413			
FHWA Noise Mod											
VehicleType	REMEL	Traffic Flow	Dista		Finite		Fres		Barrier Att		rm Atten
Autos:		-7.82		-4.51		-1.20		-4.87		000	0.000
Medium Trucks:				-4.51		-1.20		-4.97		000	0.000
Heavy Trucks:				-4.51		-1.20		-5.16	0.0	000	0.000
Unmitigated Nois							A II aula t		I dn		NFI
VehicleType Autos:	Leq Peak Hot		51.1	Leq Eve	ening 49.3	Leq	Night 43	2	51.5		NEL 52.5
Medium Trucks:			45.4		39.1		37		46.0	-	46.2
Heavy Trucks:			46.8		37.8		39		47.4	-	47.5
Vehicle Noise:		5.0	53.3		50.0		45		54.0		54.4
Centerline Distan	ce to Noise C	ontour (in feet	)								
z z z z z z z z z z z z z z z z z z z				70 dl	BA	65	dBA	6	i0 dBA	55	5 dBA
			Ldn:	9			18		40	1	85
		C	NEL:	9		:	20		42		91

Tuesday,	May	29,	2012

	FH	WA-RD-77-108	HIGH	WAY N	OISE P	REDICTI	ON MO	DEL			
	o: Year 2016 e: Santa Barb et: North of Sa	oara				Project Job No	Name: umber:		С		
SITE S	SPECIFIC IN	NPUT DATA				N	OISE N	ИODE	L INPUT	S	
Highway Data				S	Site Cor	nditions (	Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	12,600 vehicle	S					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2 /	Axles):	15		
Peak H	our Volume:	1,260 vehicle	S		He	eavy Truc	ks (3+ A	Axles):	15		
Vel	nicle Speed:	40 mph		v	/ehicle	Mix					
Near/Far Lar	ne Distance:	36 feet		ľ		icleType		Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	12.9%	9.6%	97.429
Rar	rier Height:	0.0 feet			M	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-W	all, 1-Berm):	0.0				Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.749
Centerline Dis		100.0 feet		٨	loise S	ource Ele	evation	s (in fe	eet)		
Centerline Dist.		100.0 feet				Autos	: 2.0	000			
Barrier Distance		0.0 feet			Mediu	m Trucks	: 4.0	000			
Observer Height (		5.0 feet			Hea	y Trucks	: 8.	006	Grade Ad	justment	: 0.0
	d Elevation:	0.0 feet		,	one Fe	uivalent	Dioton	oo (in i	[a.a.4]		
	d Elevation: Road Grade:	0.0 feet			ane Eq	Autos		412	eei)		
r	l eft View:	0.0%			Modiu	m Trucks		372			
	Right View:	-90.0 degre				n Trucks vy Trucks		372 413			
		90.0 degre	es		rica	ry Trucks	. 50.	413			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow		tance		Road	Fresr		Barrier Att	_	m Atten
Autos:	66.51			-4.51		-1.20		-4.87		000	0.00
Medium Trucks:	77.72			-4.51		-1.20		-4.97		000	0.00
Heavy Trucks:	82.99			-4.51		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise VehicleType	Leg Peak Ho			e <b>r attenu</b> Leg Ev		Leg I	Violet		Ldn		NEL
Autos:		ur Ley Daj ).4	58.5	Ley Ev	56.7	,	vigrit 50.6	1	59.1		IVEL 59.
Medium Trucks:		1.3	52.8		46.5		44.9		53.4	-	53.
Heavy Trucks:	-	5.6	54.2		45.2		46.4		54.8		54.
Vehicle Noise:		2.4	60.6		57.4		52.8		61.3		61.
Centerline Distance	e to Noise C	ontour (in feet	<u>:</u> )								
				70 d	IBA .	65 d	1BA	6	i0 dBA	55	dBA
			I dn:	26	,	5	7	•	123		265
			Lun.	20	)	5	/		123	4	200

	FHW	A-RD-77-108	HIGHV	VAY NO	DISE P	REDICT	ION MC	DEL			
	o: Year 2016 V					.,	Name:		С		
	e: Santa Barba et: East of Jami					JOD IN	umber:	8211			
	SPECIFIC INF	PUT DATA							L INPUT	S	
Highway Data				S	ite Cor	nditions	(Hard :	= 10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 1:	2,900 vehicles	3					Autos:	15		
Peak Hour	Percentage:	10%				edium Tr			15		
		1,290 vehicles	3		He	eavy Tru	cks (3+	Axles):	15		
	nicle Speed:	40 mph		V	ehicle	Mix					
Near/Far Lar	ne Distance:	36 feet			Veh	icleType	•	Day	Evening	Night	Daily
Site Data						,	Autos:	77.5%	12.9%	9.6%	97.42
Bar	rier Height:	0.0 feet			M	ledium T	rucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-Wa		0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.74
Centerline Dis		100.0 feet		N	oise S	ource E	levatio	ns (in fe	eet)		
Centerline Dist. t	o Observer:	100.0 feet				Auto		.000	,		
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Truck	s: 4	.000			
Observer Height (A	Above Pad):	5.0 feet				vy Truck		.006	Grade Ad	iustment	0.0
Pa	d Elevation:	0.0 feet				•					
Roa	d Elevation:	0.0 feet		Li	ane Eq	uivalen			feet)		
F	Road Grade:	0.0%				Auto		.412			
	Left View:	-90.0 degree	S			m Truck		.372			
	Right View:	90.0 degree	es		Hear	vy Truck	s: 98	.413			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dista		Finite	Road	Fres		Barrier Att		m Atter
Autos:	66.51	-0.33		-4.51		-1.20		-4.87		000	0.00
Medium Trucks:	77.72	-17.57		-4.51		-1.20		-4.97		000	0.00
Heavy Trucks:	82.99	-21.53		-4.51		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise	Levels (without Leg Peak Hour			attenu Leg Eve		100	Nicelat	1	Ldn		NEL
VehicleType Autos:	Leq Peak Hour		58.6	_eq Eve	ening 56.8	,	Night 50.	7	59.4		VEL 60
Medium Trucks:	54.4		52.9		46.6		50. 45.		53.		53
Heavy Trucks:	55.8	-	54.3		45.3		46.	-	54.	-	55
Vehicle Noise:	62.5		60.7		57.5		52.	-	61.		61
Centerline Distanc	e to Noise Co	ntour (in feet	)								
		, ,		70 dE	ВА		dBA	6	0 dBA		dBA
			Ldn:	27		Ę	58		125	2	69
			IFI:	29			32		134		88

	FHV	VA-RD-77-108	HIGHWA	Y NOISE P	REDICTIO	N MODEL					
	Year 2016 Santa Barb South of Sa	ara		Project Name: NNCPC Job Number: 8211							
SITE S	PECIFIC IN	PUT DATA		NOISE MODEL INPUTS							
Highway Data				Site Conditions (Hard = 10, Soft = 15)							
Average Daily Ti	raffic (Adt):	7,900 vehicles	;			Auto	s: 15				
Peak Hour P	ercentage:	10%		Me	edium Truc	ks (2 Axles	): 15				
Peak Ho	ur Volume:	790 vehicles		He	eavy Truck	s (3+ Axles	): 15				
Vehi	icle Speed:	40 mph		Vehicle							
Near/Far Lane	e Distance:	36 feet				Dav	E-main at 1	Viaht Daily			
Site Data				ver	nicleType	tos: 77.5	-	Night Daily 9.6% 97.42%			
					את ledium Tru			10.3% 1.84%			
	ier Height:	0.0 feet			Heavv Tru			10.8% 0.74%			
Barrier Type (0-Wa		0.0			neavy mu	LNS. 00.3	/0 2.1 /0	10.076 0.7476			
Centerline Dist.		100.0 feet		Noise S	ource Ele	vations (in	feet)				
Centerline Dist. to		100.0 feet			Autos:	2.000					
Barrier Distance to		0.0 feet		Mediu	m Trucks:	4.000					
Observer Height (A	bove Paa): d Flevation:	5.0 feet 0.0 feet		Hea	vy Trucks:	8.006	Grade Adjus	stment: 0.0			
	l Elevation:	0.0 feet		I ano Fo	uivəlent l	Distance (ii	1 foot)				
	nad Grade:	0.0 reet		Lanc Lo	Autos:		r reety				
/\tag{\tag{\tag{\tag{\tag{\tag{\tag{	Left View:	-90.0 degree		Mediu	m Trucks:						
,	Right View:	90.0 degree			vy Trucks:	98.413					
	•										
FHWA Noise Model			B: :	1		- ,					
VehicleType Autos:	REMEL 66.51	Traffic Flow -2.46	Distanc	e Finite	-1.20	Fresnel -4.8	Barrier Atter				
Medium Trucks:	77.72	-2.46 -19.70		4.51 4.51	-1.20	-4.8 -4.9					
Heavy Trucks:	82.99	-19.70		4.51 4.51	-1.20 -1.20	-4.9 -5.1					
					-1.20	-5. 11	0.00	0.000			
VehicleType L	.eq Peak Hou				Leg N	iosht	Ldn	CNEL			
Autos:	ey reak not. 58		56.4	Evening 54.7		48.6	57.2	57.8			
Medium Trucks:	58 52		50.8	54.7 44.4		48.6	51.3	57.8 51.6			
Heavy Trucks:	52		52.2	44.4		44.4	52.8	52.9			
Vehicle Noise:	60		58.6	55.3		50.8	59.3	52.9			
Centerline Distance	to Noise Co										
Comernine Distance	110130 00	our (mr reet)		70 dBA	65 dl	BA	60 dBA	55 dBA			
		L	dn:	19	42	,	90	194			
		CN	IEL:	21	45		96	208			

Scenario: Year 2016 With Project Road Name: Santa Barbara Road Segment: West of Newport CTR
Autor   Site Conditions (Hard = 10, Soft = 15)
Average Daily Traffic (Adt): 6,900 vehicles   Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15
Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15
Peak Hour Volume: 690 vehicles   Yehicle Speed: 40 mph   Yehicle Mix   Yehicle Mix   Yehicle Type   Day   Evening   Night   Day   Evening   Night   Day   Streem   Yehicle Mix   Yehicle Mix   Yehicle Type   Day   Evening   Night   Day   Streem   Yehicle Type   Day   Evening   Night   Day   Streem   Yehicle Type   Day   Evening   Night   Day   Yehicle Type   Day   Evening   Night   Day   Yehicle Type   Autos: 77.5%   12.9%   9.6%   97.   Medium Trucks: 84.8%   4.9%   10.3%   1.   Heavy Trucks: 86.5%   2.7%   10.8%   0.   Yehicle Type   Day   Evening   Night
Vehicle Speed: 40 mph   Near/Far Lane Distance: 36 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Day   Steep   Day   Day   Day   Day   Steep   Day
Near/Far Lane Distance: 36 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   December 2015
Site Data   Autos: 7.75%   12.9%   9.6% 97.
Barrier Height: 0.0 feet   Medium Trucks: 84.8% 4.9% 10.3% 1.
Barrier Type (c) Wall, 1-5erm): 0.0  Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 feet Barrier Distance to Observer: 0.0 feet Change Field: 5,0 feet Moise Source Elevations (in feet) Autos: 2,000 Medium Trucks: 4,000
Barrier Type (0-Wall, 1-Berm): 0.0 Heavy Trucks: 86.5% 2.7% 10.8% 0.  Centerline Dist. to Diserver: 100.0 feet Centerline Dist. to Observer: 0.0 feet Barrier Distance to Observer: 0.0 feet Checouse Height (Abuse) Rodt: 6.0 feet Medium Trucks: 4.000  Medium Trucks: 4.000
Centerline Dist. to Observer: 100.0 feet Barrier Distance to Observer: 0.0 feet Changer Highelt (Abus Badt): 5,0 feet Medium Trucks: 4,000 Medium Trucks: 4,000
Centerline Dist. to Observer: 100.0 feet Autos: 2.000 Barrier Distance to Observer: 0.0 feet Medium Trucks: 4.000  Medium Trucks: 4.000
Observer Height (Above Pad): 5.0 feet Medium Trucks: 4.000
Observer Height (Above Pad): 5.0 feet Heavy Trucks: 8.006 Grade Adjustment: 0.0
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet Lane Equivalent Distance (in feet)
Road Grade: 0.0% Autos: 98.412
Left View: -90.0 degrees Medium Trucks: 98.372
Right View: 90.0 degrees Heavy Trucks: 98.413
FHWA Noise Model Calculations
VehicleType REMEL Traffic Flow Distance Finite Road Fresnel Barrier Atten Berm At
Autos: 66.51 -3.05 -4.51 -1.20 -4.87 0.000 0
Medium Trucks: 77.72 -20.29 -4.51 -1.20 -4.97 0.000 0
Heavy Trucks: 82.99 -24.25 -4.51 -1.20 -5.16 0.000 0
Unmitigated Noise Levels (without Topo and barrier attenuation)
VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn CNEL
Autos: 57.7 55.8 54.1 48.0 56.6
Medium Trucks: 51.7 50.2 43.8 42.3 50.8
Heavy Trucks:         53.0         51.6         42.6         43.8         52.2           Vehicle Noise:         59.8         58.0         54.7         50.2         58.7
Centerline Distance to Noise Contour (in feet)
70 dBA 65 dBA 60 dBA 55 dBA
Ldn: 18 38 82 177
CNEL: 19 41 88 190

Tuesday, May 29, 2012

	FHW	/A-RD-77-108	HIGH	IWAY I	NOISE PI	REDICTI	ON MC	DEL					
Road Nam	io: Year 2016 Vee: San Miguel	,			Project Name: NNCPC Job Number: 8211								
	SPECIFIC IN	PUT DATA			NOISE MODEL INPUTS								
Highway Data					Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt):	9,100 vehicles	S		Autos: 15								
Peak Hour	Percentage:	10%			Medium Trucks (2 Axles): 15								
Peak H	lour Volume:	910 vehicles	3		Heavy Trucks (3+ Axles): 15								
Ve	hicle Speed:	45 mph		-	Vehicle	Miv							
Near/Far La	ne Distance:	52 feet		ł		icleType		Day	Evening	Night	Daily		
Site Data							Autos:	77.5%	Ü	9.6%			
Pa	rrier Height:	0.0 feet			Medium Trucks: 84.8% 4.9% 10.3% 1.84								
Barrier Type (0-W		0.0			Heavy Trucks: 86.5% 2.7% 10.8% 0.749								
Centerline Di	. ,	100.0 feet			Noise Source Elevations (in feet)								
Centerline Dist.		100.0 feet			Noise S			•	eet)				
Barrier Distance	to Observer:	0.0 feet				Autos		.000					
Observer Height	(Above Pad):	5.0 feet				m Trucks		.000					
Pad Elevation: 0.0 feet					Heav	y Trucks	s: 8.	.006	Grade Adj	ustment	. 0.0		
Road Elevation: 0,0 feet					Lane Eq	uivalent	Distan	ce (in	feet)				
	Road Grade:	0.0%		ĺ	Autos: 96.607								
	Left View:	-90.0 degree	es		Medium Trucks: 96.566								
	Right View:	90.0 degree			Heav	y Trucks	s: 96	.608					
FHWA Noise Mod	el Calculations	;											
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresi	nel	Barrier Atte	en Ber	m Atten		
Autos:	68.46	-2.36		-4.3		-1.20		-4.87	0.0		0.00		
Medium Trucks:	79.45	-19.60		-4.3		-1.20		-4.97	0.0		0.000		
Heavy Trucks:	84.25	-23.55		-4.3	39	-1.20		-5.16	0.0	100	0.000		
Unmitigated Nois	•												
VehicleType	Leq Peak Hou			Leq E	vening	,	Night		Ldn		NEL		
Autos:	60.	-	58.6		56.8		50.	-	59.4		60.0		
Medium Trucks:	54.	-	52.8		46.4		44.	-	53.3		53.5		
Heavy Trucks: Vehicle Noise:	55. 62.		53.7 60.6		44.6 57.4		45. 52.	-	54.3 61.3		54.4 61.8		
Centerline Distan	ce to Noise Co	ntour (in feet	)										
		,		70	0 dBA 65 dBA		60 dBA		55	55 dBA			
			Ldn:		26	57		122		2	264		
CNEL:					28 61 131 283					283			

	FHV	VA-RD-77-108	HIGHW	VAY N	OISE PI	REDICT	ION MO	DDEL				
	o: Year 2016					.,		NNCP	С			
	e: Santa Barb					Job ∧	lumber:	8211				
Road Segmen	nt: East of Nev	wport CTR										
SITE S	SPECIFIC IN	IPUT DATA			NOISE MODEL INPUTS							
Highway Data				S	Site Conditions (Hard = 10, Soft = 15)							
Average Daily	Traffic (Adt):	3,700 vehicle	S		Autos: 15							
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15			
Peak H	our Volume:	370 vehicle	S		Heavy Trucks (3+ Axles): 15							
Vel	hicle Speed:	40 mph		ν	/ehicle	Mix						
Near/Far Lar	ne Distance:	36 feet			Veh	icleType	•	Day	Evening	Night	Daily	
Site Data							Autos:	77.5%	12.9%	9.6%	97.429	
Rar	rier Heiaht:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.849	
Barrier Type (0-Wa		0.0			1	Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%	
Centerline Dis	st. to Barrier:	100.0 feet			Noise Source Elevations (in feet)							
Centerline Dist. t	to Observer:	100.0 feet		F	.0.00	Auto		.000	,,,,			
Barrier Distance t	to Observer:	0.0 feet			Mediu	m Truck		.000				
Observer Height (/	Above Pad):	5.0 feet				vy Truck		.006	Grade Ad	iustment	0.0	
Pad Elevation: 0.0 feet												
Roa	ad Elevation:	0.0 feet		L	.ane Eq	uivalen			feet)			
F	Road Grade:	0.0%				Auto		.412				
	Left View:	-90.0 degree				m Truck		.372				
	Right View:	90.0 degree	es		Heav	ry Truck	s: 98	.413				
FHWA Noise Mode	el Calculation	s										
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atten	
Autos:	66.51	-5.76		-4.51		-1.20		-4.87		000	0.00	
Medium Trucks:	77.72	-23.00		-4.51		-1.20		-4.97		000	0.00	
Heavy Trucks:	82.99	-26.95		-4.51		-1.20		-5.16	0.0	000	0.00	
Unmitigated Noise										-		
	Leq Peak Hou			Leq Ev		Leq	Night		Ldn		VEL	
Autos: Medium Trucks:	55		53.1		51.4		45	-	53.9	-	54.	
	49		47.5		41.1		39	-	48.		48.	
Heavy Trucks:  Vehicle Noise:	50 57		48.9 55.3		39.9 52.0		41		49.5 56.0		49. 56.	
Centerline Distance					32.0				50.0		50.	
Centernile Distant	e to Moise Co	nnour (III leet	,	70 d	IBA	65	dBA	6	60 dBA	55	dBA	
			Ldn:	12	2	- 2	25		54	1	17	

Tuesday, May 29, 2012

	FH	WA-RD-77-108	HIGH	IWAY N	IOISE PF	REDICT	ION MO	DEL				
Road Nan	rio: Year 2016 ne: San Migue nt: East of Ne	el			Project Name: NNCPC Job Number: 8211							
SITE	SPECIFIC II	NPUT DATA				Ν	IOISE	MODE	L INPUT	S		
Highway Data					Site Conditions (Hard = 10, Soft = 15)							
Average Daily	Traffic (Adt):	14,400 vehicle	s		Autos: 15							
Peak Hour	Percentage:	10%			Medium Trucks (2 Axles): 15							
Peak F	Hour Volume:	1,440 vehicle	S		Heavy Trucks (3+ Axles): 15							
Ve	ehicle Speed:	45 mph		-	Vehicle Mix							
Near/Far La	ne Distance:	52 feet		F		icleType		Day	Evening	Night	Dailv	
Site Data					Autos: 77.5% 12.9% 9.6% 97.4							
Ra	rrier Height:	0.0 feet			Medium Trucks: 84.8% 4.9% 10.3% 1.8							
Barrier Type (0-W		0.0			Heavy Trucks: 86.5% 2.7% 10.8% 0.74%							
	st. to Barrier:	100.0 feet		H	Noise Source Elevations (in feet)							
Centerline Dist.	to Observer:	100.0 feet		Ľ,	Autos: 2.000							
Barrier Distance to Observer: 0.0 feet				1 4 E	Auto: n Truck:		.000					
Observer Height (Above Pad): 5.0 feet					n Truck v Truck		.000	Grade Ad	iiietmant	. 0.0		
Pad Elevation: 0.0 feet					пеач	y Truck	s. o	.000	Orace Au	ustricin	. 0.0	
Ro	ad Elevation:	0.0 feet		4	Lane Eq	uivalen			feet)			
	Road Grade:	0.0%			Autos: 96.607							
	Left View:	-90.0 degre	es		Medium Trucks: 96.566							
	Right View:	90.0 degre	es		Heav	y Truck	s: 96	.608				
FHWA Noise Mod	el Calculation	18										
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite		Fres		Barrier Att		m Atten	
Autos:				-4.3		-1.20		-4.87		000	0.000	
Medium Trucks:				-4.3		-1.20		-4.97		000	0.000	
Heavy Trucks:				-4.3	-	-1.20		-5.16	0.0	000	0.000	
Unmitigated Nois			_					_		T		
VehicleType	Leq Peak Ho		_	Leq E	vening	Leq	Night		Ldn		NEL	
Autos:			60.6		58.8		52.	-	61.4		62.0	
Medium Trucks:			54.7		48.4		46.		55.3		55.5	
Heavy Trucks:			55.7		46.6		47.		56.2		56.4	
Vehicle Noise:			62.6		59.4		54.	ŏ	63.3	5	63.8	
Centerline Distan	ce to Noise C	ontour (in feet	)	70 0	JDA I	er	dD A	-	0 dBA		dBA	
			Ldn:	3			dBA 7		166		<i>aBA</i> 58	
			NFI:	3			3		178		84	
				3	-		-					

	FHV	VA-RD-77-108	HIGH	WAY N	IOISE P	REDICT	ION MC	DEL					
Road Nam	io: Year 2016 ne: San Miguel nt: West of Av	,					Name: lumber:		С				
SITE	SPECIFIC IN	IPUT DATA			NOISE MODEL INPUTS								
Highway Data					Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt):	18,100 vehicle	S					Autos:	15				
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15				
Peak H	lour Volume:	1,810 vehicle	S		He	avy Tru	cks (3+	Axles):	15				
Ve	hicle Speed:	45 mph		H	Vehicle Mix								
Near/Far La	ne Distance:	52 feet		f		icleType	,	Day	Evening	Night	Daily		
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%		
Ba	rrier Height:	0.0 feet			М	edium T	rucks:	84.8%	4.9%	10.3%	1.84%		
Barrier Type (0-W		0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%		
Centerline Di		100.0 feet		- 1	Noise S	ource E	levation	ıs (in fe	eet)				
Centerline Dist.		100.0 feet		ı		Auto	s: 2	.000					
Barrier Distance to Observer: 0.0 feet				Mediu	m Truck	s: 4	.000						
Observer Height (Above Pad): 5.0 feet				Hear	y Truck	s: 8	.006	Grade Ad	justmen	t: 0.0			
Pad Elevation: 0.0 feet				-		•							
	ad Elevation:	0.0 feet		L	Lane Eq			_ •	'eet)				
	Road Grade:	0.0%			Autos: 96.607 Medium Trucks: 96.566								
	Left View:	-90.0 degre											
	Right View:	90.0 degre	es		Hea	y Truck	s: 96	.608					
FHWA Noise Mod	el Calculation	s											
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fres	nel	Barrier Att	en Be	rm Atten		
Autos:	68.46	0.63		-4.3	9	-1.20		-4.87	0.0	000	0.000		
Medium Trucks:	79.45	-16.61		-4.3	9	-1.20		-4.97	0.0	000	0.000		
Heavy Trucks:	84.25	-20.57		-4.3	9	-1.20		-5.16	0.0	000	0.000		
Unmitigated Nois			_					1					
VehicleType	Leq Peak Hou			Leq E	vening		Night		Ldn		NEL		
Autos:	63		61.6		59.8		53.	-	62.4		63.0		
Medium Trucks:	57		55.7		49.4		47.	-	56.3		56.5		
Heavy Trucks: Vehicle Noise:	58 65		56.7 63.6		47.6 60.4		48. 55.		57.2 64.3		57.4 64.8		
Centerline Distan					55.4		55.		04.		04.0		
Centernile Distan	00 10 110/3E CC	nitoui (iii ieet	, 	70	dBA	65	dBA	6	i0 dBA	55	dBA		
			Ldn:	4	42 90		193			417			
		C	NEL:	4	5	9	96		208		447		

Tuesday,	May	20	2012

Scenario: Year 201 Road Name: San Migu			WAIN	OISE PI	REDICT	ON MC	DDEL					
Road Segment: West of I	el			Project Name: NNCPC Job Number: 8211								
SITE SPECIFIC	INPUT DATA			NOISE MODEL INPUTS								
Highway Data			S	Site Conditions (Hard = 10, Soft = 15)								
Average Daily Traffic (Adt):	25,000 vehicle	es					Autos.	15				
Peak Hour Percentage:	10%			Me	dium Tr	icks (2	Axles).	15				
Peak Hour Volume:	2,500 vehicle	es		Heavy Trucks (3+ Axles): 15								
Vehicle Speed:	45 mph			Vehicle Mix								
Near/Far Lane Distance:	52 feet		F*		icleType		Dav	Evening	Night	Daily		
Site Data				*0		Autos:	77.5%	Ü	9.6%			
Barrier Height:	0.0 feet			Medium Trucks: 84.8% 4.9% 10.3% 1.84								
Barrier Type (0-Wall, 1-Berm):				Heavy Trucks: 86.5% 2.7% 10.8% 0.749								
Centerline Dist. to Barrier:			_	Noise Source Elevations (in feet)								
Centerline Dist. to Observer:			^	Voise S				eet)				
Barrier Distance to Observer:					Auto		.000					
Observer Height (Above Pad):	5.0 feet				m Truck		.000	Crada Adi	i rotmont			
Pad Elevation: 0.0 feet					y Truck	s: 8	.006	Grade Adj	usimeni	0.0		
Road Elevation: 0,0 feet					uivalen	Distar	ice (in	feet)				
Road Grade:	0.0%				Auto	s: 96	.607					
Left View:	-90.0 degre					fedium Trucks: 96.566						
Leit view.		.03		Mediu	m Truck	s: 96	.566					
Right View:					m Truck ry Truck		.566 .608					
	90.0 degre											
Right View:  FHWA Noise Model Calculation  VehicleType REMEL	90.0 degre	es	tance	Heav Finite	y Truck Road		.608 nel	Barrier Atte		m Atten		
Right View: FHWA Noise Model Calculation VehicleType REMEL Autos: 68.4	90.0 degree	es Dis	-4.39	Heav	Road -1.20	s: 96	.608 nel -4.87	0.0	000	0.00		
Right View:  FHWA Noise Model Calculation  VehicleType REMEL  Autos: 68.4  Medium Trucks: 79.4	90.0 degree  Traffic Flow 6 2.03 5 -15.21	Dis	-4.39 -4.39	Heaver Finite	Road -1.20	s: 96	.608 nel -4.87 -4.97	0.0	000	0.000		
Right View:  FHWA Noise Model Calculation  VehicleType REMEL  Autos: 68.4  Medium Trucks: 79.4  Heavy Trucks: 84.2	90.0 degree  90.0 degree  90.0 degree  10.00	Dis	-4.39 -4.39 -4.39	Finite	Road -1.20	s: 96	.608 nel -4.87	0.0	000	0.000		
Right View: FHWA Noise Model Calculatic VehicleType REMEL Autos: 68.4 Medium Trucks: 79.4 Heavy Trucks: 84.2 Unmitigated Noise Levels (wi	90.0 degree  Traffic Flow  6 2.03  5 -15.21  5 -19.17  Thout Topo and	Dis	-4.39 -4.39 -4.39	Heaver Finite	Road -1.20 -1.20 -1.20	s: 96	.608 nel -4.87 -4.97	0.0 0.0 0.0	000 000 000	0.000 0.000 0.000		
Right View:  FHWA Noise Model Calculatic  VehicleType REMEL  Autos: 68.4  Medium Trucks: 79.4  Heavy Trucks: 84.2  Unmitigated Noise Levels (wi  VehicleType Leq Peak H	90.0 degree    Traffic Flow   6	Dis	-4.39 -4.39 -4.39	Finite Finite  in the state of	Road -1.20 -1.20 -1.20	Fres	nel -4.87 -4.97 -5.16	0.0 0.0 0.0	000 000 000	0.000 0.000 0.000		
Right View: FHWA Noise Model Calculatic VehicleType REMEL Autos: 68.4 Medium Trucks: 79.4 Heavy Trucks: 84.2 Unmitigated Noise Levels (wi VehicleType Leq Peak H Autos:	90.0 degree  90.0 degree  90.0 degree  90.0 degree  90.0 degree  90.0 degree  1.0 degree  90.0 degree  1.0 degree	Dis	-4.39 -4.39 -4.39	Finite  Finite  D  D  D  D  D  D  D  D  D  D  D  D  D	Road -1.20 -1.20 -1.20	Fres Night 55.	nel -4.87 -4.97 -5.16	0.0 0.0 0.0 <i>Ldn</i>	000 000 000 000	0.000 0.000 0.000 VEL 64.4		
Right View: FHWA Noise Model Calculatic VehicleType REMEL Autos: 68.4 Medium Trucks: 79.4 Heavy Trucks: 84.2 Unmitigated Noise Levels (wi VehicleType Leq Peak H Autos: Medium Trucks: 8	90.0 degree  Traffic Flow 6 2.03 5 -15.21 5 -19.17  thout Topo and our Leq Da 34.9 58.6	Dis 63.0 57.1	-4.39 -4.39 -4.39	Finite  Finite  Pening 61.2 50.8	Road -1.20 -1.20 -1.20	Fres  Night 55. 49.	nel -4.87 -4.97 -5.16	0.0 0.0 0.0 Ldn 63.8 57.7	000 000 000 000	0.000 0.000 0.000 VEL 64.4		
Right View: FHWA Noise Model Calculatic VehicleType REMEL Autos: 68.4 Medium Trucks: 79.4 Heavy Trucks: 84.2 Unmitigated Noise Levels (wi VehicleType Leq Peak H Autos: Medium Trucks: 94.4 Heavy Trucks: 94.4 Heavy Trucks: 94.4	90.0 degree  90.0 degree  90.0 degree  90.0 degree  90.0 degree  90.0 degree  1.0 degree  90.0 degree  1.0 degree	Dis	-4.39 -4.39 -4.39	Finite  Finite  D  D  D  D  D  D  D  D  D  D  D  D  D	Road -1.20 -1.20 -1.20	Fres Night 55.	nel -4.87 -4.97 -5.16	0.0 0.0 0.0 <i>Ldn</i>	000 000 000 000	0.000 0.000 0.000 VEL 64.4 57.9		
Right View: FHWA Noise Model Calculatic VehicleType REMEL Autos: 68.4 Medium Trucks: 79.4 Heavy Trucks: 84.2 Unmitigated Noise Levels (wi VehicleType Leq Peak H Autos: Medium Trucks: 94.4 Heavy Trucks: 94.4 Vehicle Noise: 94.4	90.0 degree  Traffic Flow 6 2.03 5 -15.21 5 -19.17  thout Topo and our Leq Da 34.9 58.6 59.5	Dis    Dis	-4.39 -4.39 -4.39	Finite  Finite  O  O  O  D  D  D  D  D  D  D  D  D  D	Road -1.20 -1.20 -1.20	Fres  Night 55. 49. 50.	nel -4.87 -4.97 -5.16	0.0 0.0 0.0 <i>Ldn</i> 63.8 57.7 58.6	000 000 000 000	0.00 0.00 0.00 VEL 64. 57.:		
Right View: FHWA Noise Model Calculatic VehicleType REMEL Autos: 68.4 Medium Trucks: 79.4 Heavy Trucks: 84.2 Unmitigated Noise Levels (wi VehicleType Leq Peak H Autos: Medium Trucks: 94.4 Heavy Trucks: 94.4 Heavy Trucks: 94.4	90.0 degree  Traffic Flow 6 2.03 5 -15.21 5 -19.17  thout Topo and our Leq Da 34.9 58.6 59.5	Dis    Dis	-4.39 -4.39 -4.39	Finite	Road -1.20 -1.20 -1.20 Leq	Fres  Night 55. 49. 50.	-4.87 -4.97 -5.16	0.0 0.0 0.0 <i>Ldn</i> 63.8 57.7 58.6	000 000 000 000 Ci	0.000 0.000 0.000		
Right View: FHWA Noise Model Calculatic VehicleType REMEL Autos: 68.4 Medium Trucks: 79.4 Heavy Trucks: 84.2 Unmitigated Noise Levels (wi VehicleType Leq Peak H Autos: Medium Trucks: 94.4 Heavy Trucks: 94.4 Vehicle Noise: 94.4	90.0 degree  Traffic Flow 6 2.03 5 -15.21 5 -19.17  thout Topo and our Leq Da 34.9 58.6 59.5	Dis    Dis	-4.39 -4.39 -4.39 <b>er attenu</b> Leq Ev	Finite  Finite  Finite  Finite  Finite  Finite  Finite  Finite  Finite	Road -1.20 -1.20 -1.20 Leq	Fres  Night  55. 49. 50.	-4.87 -4.97 -5.16	0.0 0.0 0.0 63.8 57.7 58.6 65.7	000 000 000 Ci	0.00 0.000 0.000 NEL 64. 57. 58.		

	FH\	WA-RD-77-108	HIGH	1 YAWH	NOISE P	REDICT	ION M	ODEL				
	o: Year 2016 e: San Miguel at: East of Ava				Project Name: NNCPC Job Number: 8211							
SITE S	SPECIFIC IN	IPUT DATA			NOISE MODEL INPUTS							
Highway Data					Site Conditions (Hard = 10, Soft = 15)							
Average Daily 1	Traffic (Adt):	26,800 vehicle	s		Autos: 15							
Peak Hour I	Percentage:	10%			Medium Trucks (2 Axles): 15							
Peak Ho	our Volume:	2,680 vehicle	s		Heavy Trucks (3+ Axles): 15							
Vet	nicle Speed:	45 mph			Vehicle	Mix						
Near/Far Lar	ne Distance:	52 feet		ŀ		nicleType	,	Day	Evening	Night	Daily	
Site Data					Autos: 77.5% 12.9% 9.6% 97.4							
Ran	rier Heiaht:	0.0 feet			Medium Trucks: 84.8% 4.9% 10.3% 1.84							
Barrier Type (0-Wa		0.0			Heavy Trucks: 86.5% 2.7% 10.8% 0.74%							
Centerline Dis	. ,	100.0 feet		ŀ	Noise Source Elevations (in feet)							
Centerline Dist. t	o Observer:	100.0 feet		-	Autos: 2.000							
Barrier Distance t	o Observer:	0.0 feet			A 4 E -	Auto: m Truck:		1.000				
Observer Height ()	Above Pad):	5.0 feet						3.006	Grade Ad	ii rotmon	4. 0.0	
Pad Elevation: 0.0 feet					пеа	vy Truck	s. c	0.000	Graue Au	Justinen	i. 0.0	
Roa	d Elevation:	0.0 feet			Lane Eq	uivalen	t Dista	nce (in	feet)			
F	Road Grade:	0.0%			Autos: 96.607							
	Left View:	-90.0 degree	es		Medium Trucks: 96.566							
	Right View:	90.0 degree	es		Hear	vy Truck	s: 96	8.608				
FHWA Noise Mode	l Calculation	s										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	snel	Barrier Att	en Be	rm Atten	
Autos:	68.46	2.33		-4.3	9	-1.20		-4.87	0.0	000	0.000	
Medium Trucks:	79.45	-14.91		-4.3	9	-1.20		-4.97	0.0	000	0.000	
Heavy Trucks:	84.25	-18.86		-4.3	9	-1.20		-5.16	0.0	000	0.000	
Unmitigated Noise	Levels (with	out Topo and	barri	er atter	nuation)							
,,	Leq Peak Hou			Leq E	vening		Night		Ldn		NEL	
Autos:	65	-	63.3		61.5		55		64.1		64.7	
Medium Trucks:	59		57.4		51.1		49		58.0	-	58.2	
Heavy Trucks:	59		58.4		49.3		50		58.9		59.	
Vehicle Noise:	67	.0	65.3		62.1		57	.5	66.0	)	66.5	
Centerline Distanc	e to Noise Co	ontour (in feet	)	-								
					dBA		dBA		60 dBA		dBA	
			Ldn:	-	i4 i8	117 251 125 270			541 581			
CNEL:				5	8	1.	25		270		180	

	FH	WA-RD-77-108	HIGH	IWAY N	IOISE PF	REDICT	ION MO	DDEL				
Road Nan	rio: Year 2016 ne: San Migue nt: East of Ma	·			Project Name: NNCPC Job Number: 8211							
SITE	SPECIFIC II	NPUT DATA				Ν	IOISE	MODE	L INPUT	S		
Highway Data					Site Conditions (Hard = 10, Soft = 15)							
Average Daily	Traffic (Adt):	12,500 vehicle	s		Autos: 15							
Peak Hour	Percentage:	10%			Medium Trucks (2 Axles): 15							
Peak F	lour Volume:	1,250 vehicle	s		Heavy Trucks (3+ Axles): 15							
Ve	ehicle Speed:	45 mph		-	Vehicle Mix							
Near/Far La	ne Distance:	52 feet		-		icleType		Day	Evening	Night	Dailv	
Site Data					Autos: 77.5% 12.9% 9.6% 97.4							
Pa	rrier Height:	0.0 feet										
Barrier Type (0-W		0.0			Heavy Trucks: 86.5% 2.7% 10.8% 0.74%							
Centerline Di		100.0 feet		L	Noise Source Elevations (in feet)							
Centerline Dist.	to Observer:	100.0 feet		<u> </u>	Autos: 2.000							
Barrier Distance	to Observer:	0.0 feet										
Observer Height (Above Pad): 5.0 feet					n Truck v Truck		.000	Grade Ad	iuctmont	. 0.0		
Pad Elevation: 0.0 feet					Heav	y Truck	s: 8	.006	Grade Au	Justinent	. 0.0	
Ro	ad Elevation:	0.0 feet		1	Lane Eq	uivalen	t Distar	nce (in	feet)			
	Road Grade:	0.0%			Autos: 96.607							
	Left View:	-90.0 degre	es		Medium Trucks: 96.566							
	Right View:	90.0 degre	es		Heav	y Truck	s: 96	.608				
FHWA Noise Mod	el Calculation	15										
VehicleType	REMEL	Traffic Flow		tance	Finite		Fres		Barrier Att		m Atten	
Autos:				-4.3		-1.20		-4.87		000	0.000	
Medium Trucks:				-4.3		-1.20		-4.97		000	0.000	
Heavy Trucks:				-4.3	-	-1.20		-5.16	0.0	000	0.000	
Unmitigated Nois		-								T		
VehicleType	Leq Peak Ho			Leq E	vening	Leq	Night		Ldn		NEL	
Autos:	-	1.9	60.0		58.2		52.	_	60.8	-	61.4	
Medium Trucks:		5.6	54.1		47.8		46.		54.7		54.9	
Heavy Trucks:		6.5	55.1		46.0		47.		55.6		55.8	
Vehicle Noise:		3.7	62.0		58.8		54.	.1	62.7	′	63.	
Centerline Distan	ce to Noise C	ontour (in feet	!)	70 0	JDA I	er	dD A		60 dBA		dBA	
			Ldn:	70 0			dBA '0		151		ава 326	
		0	Lan: NFI:	3			'5		162		326 349	
		C.	VLL.	3	J	- /	J		102		143	

	FH\	WA-RD-77-108	HIGH	WAY I	NOISE P	REDICT	ION MC	DEL					
Road Nar	rio: Year 2016 me: Coast High ent: West of Ja	way					t Name: lumber:		С				
SITE	SPECIFIC IN	IPUT DATA				1	NOISE	MODE	L INPUT	S			
Highway Data					Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Traffic (Adt):	71,600 vehicle	s					Autos:	15				
Peak Hou	r Percentage:	10%			Me	edium Ti	ucks (2	Axles):	15				
Peak I	Hour Volume:	7,160 vehicle	s		He	avy Tru	cks (3+	Axles):	15				
V	ehicle Speed:	45 mph		ŀ	Vehicle Mix								
Near/Far La	ane Distance:	76 feet		ŀ		icleTyp	Э	Day	Evening	Night	Daily		
Site Data							Autos:	77.5%	12.9%	9.6	% 97.42%		
Ba	arrier Height:	0.0 feet			М	edium 7	rucks:	84.8%	4.9%	10.3	% 1.84%		
Barrier Type (0-V		0.0				Heavy 7	rucks:	86.5%	2.7%	10.8	% 0.74%		
	ist. to Barrier:	100.0 feet		ı	Noise Source Elevations (in feet)								
Centerline Dist		100.0 feet		Ī		Auto	s: 2.	000					
	rrier Distance to Observer: 0.0 feet				Mediu	m Truck	s: 4.	000					
Observer Height (Above Pad): 5.0 feet				Hear	y Truck	s: 8.	006	Grade Ad	justme	nt: 0.0			
	Pad Elevation: 0.0 feet				/ F-		4 Di-4	// /	r4)				
Ro	ad Elevation:	0.0 feet		-	Lane Eq	uivaien Auto		ce (III 1 547	eet)				
	Road Grade:	0.0%			1.4	Auto m Truck		.547 .504					
	Left View:	-90.0 degre				m Truck vy Truck		.504					
	Right View:	90.0 degre	es		пеа	y much	.8. 92	.547					
FHWA Noise Mod													
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fresi		Barrier Att		erm Atten		
Autos		6.60		-4.1		-1.20		-4.87		000	0.000		
Medium Trucks		-10.64		-4.1		-1.20		-4.97		000	0.000		
Heavy Trucks.		-14.60		-4.1	-	-1.20		-5.16	0.0	000	0.000		
Unmitigated Nois			_					1		1	01/5/		
VehicleType Autos	Leq Peak Hou		67.8	Leq E	vening 66.1	Leq	Night 60.	_	Ldn 68.0		CNEL 69.3		
Medium Trucks			62.0		55.6		54.	-	62.		62.8		
Heavy Trucks			62.9		53.9		54. 55.		63.5		63.6		
Vehicle Noise			69.8		66.7		62.		70.0		71.0		
Centerline Distar	ice to Noise Co	ontour (in feet	)										
		,		70	dBA	65	dBA	6	i0 dBA		5 dBA		
			Ldn:	1	09	2	34	•	505	•	1,088		
		C	NEL:	1	17	2	52		542		1,167		

Tuesday,	Many	20	2012

Average Daily Traffic (Adt): 54,100 vehicles		FHV	VA-RD-77-108	HIGH	WAY N	OISE PI	REDICT	ION M	DDEL				
Average Daily Traffic (Adt): 54,100 vehicles   Peak Hour Percentage: 10%   Autos: 15   Medium Trucks (2 Axles): 15   Medium Trucks (3 Axles): 15	Road Nan	ne: Coast High	way										
Average Daily Traffic (Adt): 54,100 vehicles Peak Hour Percentage: 10% Peak Hour Potentage: 5,410 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 76 feet    Vehicle Type	SITE	SPECIFIC IN	IPUT DATA				N	IOISE	MODE	L INPUT	S		
Peak Hour Percentage:   10%   Medium Trucks (2 Axles):   15	Highway Data				5	Site Con	nditions	(Hard:	= 10, Sc	oft = 15)			
Peak Hour Volume: 5,410 vehicles   Vehicle Speed: 45 mph   Near/Far Lane Distance: 76 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Daily   Day   Province   Day   Evening   Night   Daily   Day   Province   Day   Day   Day   Province   Day   Day   Province   Day   Province   Day   Province   Day   Province   Day   Province   Day   Province   Day   Province   Day   Province   Day   Province   Day   Province   Day   Province   Day   Province   Day   Day   Province   Day   Province   Day   Province   Day   Province   Day   Province   Day   Day   Province   Day   Province   Day   Province   Day   Province   Day   Province   Day   Day   Province   Day   Day   Province   Day   Day   Province   Day   Day   Province   Day   Day   Province   Day   Day   Province   Day   Day   Province   Day   Day   Province   Day   Day   Day   Province   Day   Day   Day   Day   Province   Day   Day   Day   Day   Province   Day   Day   Day   Province   Day   Day   Day   Day   Province   Day   Day   Day   Day   Province   Day   D	Average Daily	Traffic (Adt):	54,100 vehicle	S					Autos:	15			
Vehicle Speed: Near/Far Lane Distance: 76 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Daily	Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2	Axles):	15			
Near/Far Lane Distance:   76 feet   Near/Far Lane Distance:   76 feet   Near/Far Lane Distance:   76 feet   Near/Far Lane Distance:   76 feet   Near/Far Lane Distance:   76 feet   Near/Far Lane Distance:   77 dBA   65 dBA   50 dBA   15 dBA   10 dBA   15 dBA   10 dBA   15 dBA   Ldn:   10 dBA   Ldn:   10 dBA   15 dBA   Ldn:   10 dBA   15 dBA   Ldn:   10 dBA   15 dBA   Ldn:   10 dBA   15 dBA   Ldn:   10 dBA   15 dBA   Ldn:   10 dBA   15 dBA   Ldn:   10 dBA   15 dBA   Ldn:   10 dBA   15 dBA   Ldn:   10 dBA   15 dBA   Ldn:   10 dBA   15 dBA   Ldn:   10 dBA   15 dBA   Ldn:   10 dBA   Ldn:   10 dBA   15 dBA   Ldn:   10 dBA   Ldn:   10 dBA   15 dBA   Ldn:   10 dBA   Ldn:   10 dBA   15 dBA   Ldn:   10 dBA   Ldn:   10 dBA   15 dBA   Ldn:   10 dBA   Ldn:	Peak H	lour Volume:	5,410 vehicle	s		He	avy Tru	cks (3+	Axles):	15			
Near/Far Lane Distance: 76 feet   VehicleType   Day   Evening   Night   Daily	Ve	ehicle Speed:	45 mph		,	/ohiclo	Miv						
Barrier Height:   0.0   feet   Medium Trucks:   84.8%   4.9%   10.3%   18.4%   10.3%   10.3%   18.4%   10.3%   10.3%   18.4%   10.3%   10.3%   18.4%   10.3%	Near/Far La	Near/Far Lane Distance: 76 feet						,	Dav	Evenina	Night	Daily	
Barrier Height:   0.0   feet   Medium Trucks:   84.8%   4.9%   10.3%   1.84*	Site Data					¥ C//				-		. ,	
Barrier Type (0-Wall, 1-Berm): 0.0   Centerline Dist to Barrier: 100.0   feet		uviov Holahtı	0.0 foot			М							
Centerline Dist. to Barrier:   100.0   feet   Centerline Dist. to Diserver:   0.0   feet   Centerline Dist.													
Centerline Dist. to Observer:   100.0   feet							,						
Barrier Distance to Observer: 0.0   feet Observer Height (Above Pad): 5.0   feet Pad Elevation: 0.0   feet Road Elevation: 0.0   feet Carrier				٨	Voise S				eet)				
Observer Height (Above Pad):   5.0 feet   Pad Elevation:   0.0 feet   Road Elevation:   0.0 feet   Care   Pad Elevation:   0.0 feet   Pad El													
Pad Elevation:													
Road Elevation:		,,				Heav	vy Truck	s: 8	3.006	Grade Adj	ustment	: 0.0	
Left View:					L	ane Eq	uivalen	t Distai	nce (in i	feet)			
Right View: 90.0 degrees		Road Grade:	0.0%				Auto	s: 92	2.547				
		Left View:	-90.0 degree	es		Mediu	m Truck	s: 92	2.504				
VehicleType		Right View:	90.0 degree	es		Heavy Trucks: 92.547							
Autos:         68.46         5.38         -4.11         -1.20         -4.87         0.000         0.00           Medium Trucks:         79.45         -11.86         -4.11         -1.20         -4.97         0.000         0.00           Heavy Trucks:         84.25         -15.81         -4.11         -1.20         -5.16         0.000         0.00           Unmitigated Noise Levels (without Topo and barrier attenuation)         VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         68.5         66.6         64.9         55.8         67.4         68           Medium Trucks:         62.3         60.8         54.4         52.9         61.3         61           Heavy Trucks:         63.1         61.7         52.7         53.9         62.3         62           Vehicle Noise:         70.4         68.6         65.5         60.8         69.3         69           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ladi:         90         195         419         90	FHWA Noise Mod	lel Calculation	s										
Medium Trucks: 79.45	VehicleType	REMEL		Dista	ance	Finite		Fres		Barrier Att	en Ber	m Atten	
Heavy Trucks: 84.25									-4.87			0.00	
Unmitigated Noise Levels (without Topo and barrier attenuation)   VehicleType   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNEL   Autos: 68.5   66.6   64.9   55.8   67.4   68.8   Medium Trucks: 62.3   60.8   54.4   52.9   61.3   61.4   Heavy Trucks: 63.1   61.7   52.7   53.9   62.3   62.2   Vehicle Noise: 70.4   68.6   65.5   60.8   69.3   69.2												0.000	
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         69.5         66.6         64.9         58.8         67.4         68.           Medium Trucks:         62.3         60.8         54.4         52.9         61.3         61.           Heavy Trucks:         63.1         61.7         52.7         53.9         62.3         62.           Vehicle Noise:         70.4         68.6         65.5         60.8         69.3         69           Centerline Distance to Noise Contour (in feet)           Ldn:         90         195         419         903							-1.20		-5.16	0.0	000	0.000	
Autos:         68.5         66.6         64.9         58.8         67.4         68.           Medium Trucks:         62.3         60.8         54.4         52.9         61.3         61.           Heavy Trucks:         63.1         61.7         52.7         53.9         62.3         62.           Vehicle Noise:         70.4         68.6         65.5         60.8         69.3         69           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         90         195         419         903	•								1				
Medium Trucks:         62.3         60.8         54.4         52.9         61.3         61.           Heavy Trucks:         63.1         61.7         52.7         53.9         62.3         62.           Vehicle Noise:         70.4         68.6         65.5         60.8         69.3         69.           Centerline Distance to Noise Contour (in feet)         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         90         195         419         903	,,	_			Leq Ev				^				
Heavy Trucks:   63.1   61.7   52.7   53.9   62.3   62.													
Vehicle Noise:         70.4         68.6         65.5         60.8         69.3         69           Centerline Distance to Noise Contour (in feet)           20         70 dBA         65 dBA         60 dBA         55 dBA           Ldn:         90         195         419         903													
70 dBA 65 dBA 60 dBA 55 dBA Ldn: 90 195 419 903												69.8	
Ldn: 90 195 419 903	Centerline Distan	ce to Noise Co	ontour (in feet	)									
					70 d	IBA .	65	dBA	6	60 dBA	55	dBA	
CNEL: 97 209 450 968				Ldn:	90	)	1	95		419	9	03	
			CI	VEL:	97	7	2	09		450	9	168	

	FHV	VA-RD-77-108	HIGHW.	AY NO	DISE P	REDICT	ION MO	DDEL				
	o: Year 2016 ve: Coast High ot: East of Jam	way					t Name: Number:	8211	С			
SITE S	SPECIFIC IN	PUT DATA				1	VOISE	MODE	L INPUT	S		
Highway Data				S	ite Cor	nditions	(Hard	= 10, Sc	oft = 15)			
Average Daily 1	Traffic (Adt): 5	8,300 vehicle	S					Autos:	15			
Peak Hour I	Percentage:	10%			Me	dium Ti	rucks (2	Axles):	15			
Peak Ho	our Volume:	5,830 vehicle	S		He	avy Tru	icks (3+	Axles):	15			
Vet	nicle Speed:	45 mph		V	ehicle	Mix						
Near/Far Lane Distance: 76 feet				-	Veh	icleTyp	е	Day	Evening	Night	Daily	
Site Data							Autos:	77.5%	12.9%	9.6%	97.42	
Bar	rier Height:	0.0 feet			М	edium 7	rucks:	84.8%	4.9%	10.3%	1.849	
Barrier Type (0-Wa		0.0			- 1	Heavy 7	rucks:	86.5%	2.7%	10.8%	0.74	
Centerline Dis	N	Noise Source Elevations (in feet)										
Centerline Dist. t	o Observer:	100.0 feet		-	0,00 0	Auto		2.000	,,,			
Barrier Distance to Observer: 0.0 feet					Mediu	m Truck	-	1.000				
Observer Height (A	Observer Height (Above Pad): 5.0 feet							3.006	Grade Ad	liustment	: 0.0	
Pa	d Elevation:	0.0 feet								,		
Roa	d Elevation:	0.0 feet		Li	ane Eq			nce (in	feet)			
F	Road Grade:	0.0%				Auto		2.547				
	Left View:	-90.0 degree			Medium Trucks: 92.504							
	Right View:	90.0 degree	es		Heav	y Truck	(S: 92	2.547				
FHWA Noise Mode	l Calculation	S										
VehicleType	REMEL	Traffic Flow	Distar		Finite	Road	Fres		Barrier Att	en Bei	rm Atten	
Autos:	68.46	5.71		-4.11		-1.20		-4.87		000	0.00	
Medium Trucks:	79.45	-11.53		-4.11		-1.20		-4.97		000	0.00	
Heavy Trucks:	84.25	-15.49		-4.11		-1.20		-5.16	0.0	000	0.00	
Unmitigated Noise										,		
,,	Leq Peak Hou			eq Eve		Leq	Night		Ldn		NEL	
Autos:	68	-	67.0		65.2		59		67.	-	68.	
Medium Trucks:	62	-	61.1		54.7		53		61.		61.	
Heavy Trucks:	63	•	62.0 68.9		53.0 65.8		54 61		62.0		62 70	
· · · · · -			UO. 9		8.60		61	. 1	69.	1	70.	
Vehicle Noise:	70	•										
· · · · · -		•	)	70 dF	B <i>A</i>	65	dBA	-	60 dBA	55	dBA	
Vehicle Noise:		ntour (in feet	)	70 dE	ВА		dBA	(	60 dBA 440		dBA	

Tuesday, May 29, 2012

	FH	WA-RD-77-108	HIGH	WAY N	IOISE PI	REDICTI	ON M	ODEL					
Scenar	io: Year 2016	With Project			Project Name: NNCPC								
	ne: Coast High				Job Number: 8211								
Road Segme	nt: East of Ne	wport CTR											
	SPECIFIC II	NPUT DATA							L INPUT	S			
Highway Data					Site Cor	ditions	(Hard	= 10, S	oft = 15)				
Average Daily	Traffic (Adt):	45,300 vehicle	S					Autos:	15				
Peak Hour	Percentage:	10%				dium Tru							
	lour Volume:	4,530 vehicle	S		He	avy Truc	cks (3+	Axles):	15				
	ehicle Speed:	45 mph			Vehicle	Mix							
Near/Far La	ne Distance:	76 feet			Veh	icleType		Day	Evening	Night	Daily		
Site Data						A	lutos:	77.5%	12.9%	9.6%	97.42%		
Ва	rrier Height:	0.0 feet			М	edium Tı	ucks:	84.8%	4.9%	10.3%	1.84%		
Barrier Type (0-V	/all, 1-Berm):	0.0			-	Heavy Ti	ucks:	86.5%	2.7%	10.8%	0.74%		
Centerline Di	st. to Barrier:	100.0 feet		H	Noise S	ource El	evatio	ns (in f	eet)				
Centerline Dist.	to Observer:	100.0 feet				Auto		2.000	,				
Barrier Distance	0.0 feet			Mediu	m Truck		1.000						
	Observer Height (Above Pad): 5.0 feet				Heav	vy Trucks	s: 8	3.006	Grade Ad	justment	0.0		
-	ad Elevation:	0.0 feet		L		•							
	ad Elevation:	0.0 feet		P	Lane Eq				feet)				
	Road Grade:	0.0%			Autos: 92.547 Medium Trucks: 92.504								
	Left View:	-90.0 degre			Heavy Trucks: 92.547								
	Right View:	90.0 degre	es		Heav	y Truck	s: 92	2.547					
FHWA Noise Mod	el Calculation	18											
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fres		Barrier Att		m Atten		
Autos:				-4.1		-1.20		-4.87		000	0.000		
Medium Trucks:				-4.1		-1.20		-4.97		000	0.000		
Heavy Trucks:	84.25	-16.58		-4.1	1	-1.20		-5.16	0.0	000	0.000		
<b>Unmitigated Nois</b>													
VehicleType	Leq Peak Ho			Leq E	vening	Leq	Night		Ldn		NEL		
Autos:			65.9		64.1		58		66.7		67.3		
Medium Trucks:	-		60.0		53.6		52		60.6	-	60.8		
Heavy Trucks: Vehicle Noise:			60.9 67.8		51.9 53.1 61.5 64.7 60.0 68.6					61.6 69.0			
					04.7		60	.0	00.0	)	09.0		
Centerline Distan	ce to Noise C	ontour (in feet	)	70.	dBA	65	dBA	т.	60 dBA	55	dBA		
			I dn:		0		73	<u> </u>	372		102 102		
			NEL:	8	-		35		399	_	60		
		0.			-					_			

	FH\	WA-RD-77-108	HIGH	IWAY N	OISE P	REDICT	TION M	DDEL						
	Year 2016 Coast High West of Av	way					t Name. Vumber.	8211	С					
SITE S	PECIFIC IN	IPUT DATA			NOISE MODEL INPUTS									
Highway Data					Site Conditions (Hard = 10, Soft = 15)									
Average Daily Ti	raffic (Adt):	43,800 vehicle	s					Autos:	15					
Peak Hour P	ercentage:	10%			Medium Trucks (2 Axles): 15									
Peak Ho	ur Volume:	4,380 vehicle	S		He	eavy Tru	icks (3+	Axles):	15					
Vehi	icle Speed:	45 mph		-	/ehicle	Mix								
Near/Far Lane	Near/Far Lane Distance: 76 feet					icleTyp	е	Day	Evening	Night	Daily			
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%			
Barri	ier Height:	0.0 feet			M	ledium 7	rucks:	84.8%	4.9%	10.3%	1.84%			
Barrier Type (0-Wa		0.0				Heavy 7	rucks:	86.5%	2.7%	10.8%	0.74%			
Centerline Dist. to Barrier: 100.0 feet					Noise Source Elevations (in feet)									
Centerline Dist. to Observer: 100.0 feet					Autos: 2.000									
	Barrier Distance to Observer: 0.0 feet				Mediu	m Truck	ks: 4	.000						
Observer Height (A	,	5.0 feet			Hea	vy Truck	ks: 8	3.006	Grade Ad	justment	: 0.0			
	l Elevation:	0.0 feet		<u> </u>										
	l Elevation:	0.0 feet		1	ane Eq			nce (in i	feet)					
Ro	oad Grade:	0.0%			Autos: 92.547									
	Left View:	-90.0 degree			Medium Trucks: 92.504									
,	Right View:	90.0 degree	es		Hea	vy Truck	ks: 92	2.547						
FHWA Noise Model	Calculation	s												
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fres		Barrier Att	en Bei	rm Atten			
Autos:	68.46	4.46		-4.11		-1.20		-4.87		000	0.000			
Medium Trucks:	79.45	-12.77		-4.11		-1.20		-4.97			0.000			
Heavy Trucks:	84.25	-16.73		-4.11	l	-1.20		-5.16	0.0	000	0.000			
Unmitigated Noise			_											
	eq Peak Hou		_	Leq E		,	Night		Ldn		NEL			
Autos:	67		65.7		63.9		57		66.	-	67.1			
Medium Trucks:	61		59.9		53.5		51		60.4		60.6			
Heavy Trucks: Vehicle Noise:	62 69		60.8		51.8 64.6		53 59		61.4		61.5 68.9			
Centerline Distance		• •			34.0				00.	•	00.0			
Contentine Distance	110/38 00	Jui (iii leet	, 	70 c	IBA	65	dBA	6	i0 dBA	55	dBA			
			Ldn:	78	3	1	169		364	7	784			
		CI	NEL:	84	4	1	181		390	8	341			

	FHW	A-RD-77-108	HIG	HWAY	NOISE PI	REDICT	ON MO	DEL				
Scenario: Year 2 Road Name: Coast Road Segment: West	Highwa	ay			Project Name: NNCPC Job Number: 8211							
SITE SPECIFI	CINP	UT DATA				Ν	IOISE N	NODE	L INPUTS	3		
Highway Data					Site Con	ditions	(Hard =	10, S	oft = 15)			
Average Daily Traffic (A	tt): 45	,300 vehicles	S					Autos:	15			
Peak Hour Percentag	je:	10%			Me	dium Tri	ıcks (2 i	4xles):	15			
Peak Hour Volun	ne: 4	,530 vehicles	S		He	avy Trud	cks (3+ )	4xles):	15			
Vehicle Spe	ed:	45 mph			Vehicle	Miv						
Near/Far Lane Distan	e:	76 feet				icleType		Day	Evening	Night	Daily	
Site Data							Autos:	77.5%	-	9.6%		
Barrier Heig	ht.	0.0 feet			М	edium Ti	rucks:	84.8%	4.9%	10.3%	1.84%	
Barrier Type (0-Wall, 1-Ber		0.0			1	leavy Ti	rucks:	86.5%	2.7%	10.8%	0.74%	
Centerline Dist. to Barr		100.0 feet										
Centerline Dist. to Observer: 100.0 feet					Noise Source Elevations (in feet)							
Barrier Distance to Observer: 0.0 feet						Auto		000				
Observer Height (Above Pad): 5.0 feet						m Truck		000				
Pad Flevati	,	0.0 feet			Heav	y Truck	s: 8.	006	Grade Adj	ustment	0.0	
Road Elevati	on:	0.0 feet			Lane Eq	uivalen	Distan	ce (in	feet)			
Road Gra	de:	0.0%			Autos: 92.547							
Left Vie	W:	-90.0 degree	es		Medium Trucks: 92.504							
Right View: 90.0 degrees												
Right Vie	W.	90.0 degree	es		Heav	y Truck	s: 92.	547				
		90.0 degree	es		Heav		s: 92.	547				
	tions	90.0 degree		stance			s: 92.		Barrier Atte	en Ber	m Atten	
FHWA Noise Model Calcula VehicleType REME	tions			stance	Finite	y Truck			Barrier Atte			
FHWA Noise Model Calcula VehicleType REME Autos: 6 Medium Trucks: 7	3.46 9.45	7raffic Flow 4.61 -12.63		-4. -4.	Finite	Road -1.20		nel -4.87 -4.97	0.0	100	0.000	
FHWA Noise Model Calcular VehicleType REME Autos: 6 Medium Trucks: 7	tions - - - - - - - - - -	Traffic Flow 4.61		-4.	Finite	Road -1.20		nel -4.87	0.0	100	0.000	
FHWA Noise Model Calcula VehicleType REME Autos: 6 Medium Trucks: 7 Heavy Trucks: 8 Unmitigated Noise Levels	3.46 9.45 4.25 withou	4.61 -12.63 -16.58	Di <b>barr</b>	-4. -4. -4. ier atte	Finite 11 11 11 11 nuation)	Road -1.20 -1.20 -1.20	Fresi	nel -4.87 -4.97	0.0 0.0 0.0	100 100 100	0.000 0.000 0.000	
FHWA Noise Model Calculi VehicleType REME Autos: 6 Medium Trucks: 7 Heavy Trucks: 8 Unmitigated Noise Levels ( VehicleType Leq Peal	3.46 9.45 4.25 withour	4.61 -12.63 -16.58 <b>It Topo and</b> Leq Day	Di barr	-4. -4. -4. ier atte	Finite 11 11 11 11 nuation)	Road -1.20 -1.20 -1.20	Fresr Night	nel -4.87 -4.97 -5.16	0.0 0.0 0.0	000 000 000	0.000 0.000 0.000	
FHWA Noise Model Calcult VehicleType REME Autos: 6 Medium Trucks: 7 Heavy Trucks: 8 Unmitigated Noise Levels ( VehicleType Leq Peal Autos:	3.46 9.45 4.25 withour 67.8	7. 4.61 -12.63 -16.58 -16 Day	<i>barr</i> , 65.9	-4. -4. -4. ier atte	Finite 11 11 11 nuation) Evening 64.1	Road -1.20 -1.20 -1.20	Fresi Night 58.0	nel -4.87 -4.97 -5.16	0.0 0.0 0.0 Ldn 66.7	000 000 000	0.000 0.000 0.000 VEL 67.3	
FHWA Noise Model Calculi VehicleType REME Autos: 6 Medium Trucks: 7 Heavy Trucks: 8 Unmitigated Noise Levels ( VehicleType Leq Peal Autos: Medium Trucks:	3.46 9.45 4.25 withou 67.8 61.5	4.61 -12.63 -16.58 <b>It Topo and</b> Leq Day	<i>barri</i> , 65.9 60.0	-4. -4. -4. ier atte	Finite 11 11 11 11 nuation) Evening 64.1 53.6	Road -1.20 -1.20 -1.20	Fresi Night 58.0 52.1	-4.87 -4.97 -5.16	0.0 0.0 0.0 Ldn 66.7 60.6	000 000 000	0.000 0.000 0.000 VEL 67.3 60.8	
FHWA Noise Model Calcult VehicleType REME Autos: 6 Medium Trucks: 7 Heavy Trucks: 8 Unmitigated Noise Levels VehicleType Leq Peal Autos: Medium Trucks: Heavy Trucks:	3.46 9.45 4.25 withou 67.8 61.5 62.4	4.61 -12.63 -16.58 It Topo and Leq Day	barn 65.9 60.0 60.9	-4. -4. -4. ier atte	Finite 11 11 11 11 11 11 11 11 11 11 11 11 11	Road -1.20 -1.20 -1.20	Fresi Night 58.0 52.1	-4.87 -4.97 -5.16	0.0 0.0 0.0 Ldn 66.7 60.6 61.5	000 000 000	0.000 0.000 0.000 VEL 67.3 60.8	
FHWA Noise Model Calcult VehicleType REME Autos: 6 Medium Trucks: 7 Heavy Trucks: 8 VehicleType Leq Peal Autos: Medium Trucks: Heavy Trucks: Vehicle Noise:	3.46 9.45 4.25 withour 67.8 61.5 62.4 69.6	7raffic Flow 4.61 -12.63 -16.58 ut Topo and Leq Day	barri 65.9 60.0 60.9	-4. -4. -4. ier atte	Finite 11 11 11 11 nuation) Evening 64.1 53.6	Road -1.20 -1.20 -1.20	Fresi Night 58.0 52.1	-4.87 -4.97 -5.16	0.0 0.0 0.0 Ldn 66.7 60.6	000 000 000	0.000 0.000 0.000 VEL 67.3 60.8	
FHWA Noise Model Calcult VehicleType REME Autos: 6 Medium Trucks: 7 Heavy Trucks: 8 Unmitigated Noise Levels VehicleType Leq Peal Autos: Medium Trucks: Heavy Trucks:	3.46 9.45 4.25 withour 67.8 61.5 62.4 69.6	7raffic Flow 4.61 -12.63 -16.58 ut Topo and Leq Day	barri 65.9 60.0 60.9	-4.' -4.' -4.' Leq L	Finite 11 11 11 11 11 11 11 11 11 11 11 11 11	Road -1.20 -1.20 -1.20 Leq	Fresi Night 58.0 52.1	nel -4.87 -4.97 -5.16	0.0 0.0 0.0 Ldn 66.7 60.6 61.5	000 000 000 Ci	0.000 0.000 0.000	
FHWA Noise Model Calcult VehicleType REME Autos: 6 Medium Trucks: 7 Heavy Trucks: 8 VehicleType Leq Peal Autos: Heavy Trucks: Heavy Trucks: Vehicle Noise:	3.46 9.45 4.25 withour 67.8 61.5 62.4 69.6	Traffic Flow 4.61 -12.63 -16.58 ut Topo and Leq Day	barri 65.9 60.0 60.9	-4.' -4.' -4.' -4.' -4.' Leq E	Finite   11   11   11   11   11   11   11   1	Road -1.20 -1.20 -1.20 Leq	Fresi Night 58.0 52.1 53.1	nel -4.87 -4.97 -5.16	0.0 0.0 0.0 0.0 Edn 66.7 60.6 61.5 68.6	000 000 000 Ci	0.000 0.000 0.000 NEL 67.3 60.8 61.6	

	FHW	A-RD-77-108	HIGHV	VAY NO	DISE P	REDICT	ION MC	DEL					
Road Name	o: Year 2016 W e: Coast Highw ht: East of Avac	/ay			Project Name: NNCPC Job Number: 8211								
SITE S	SPECIFIC INF	PUT DATA				N	IOISE	MODE	L INPUT	S			
Highway Data				S	ite Cor	nditions	(Hard =	= 10, Sc	oft = 15)				
Average Daily	Traffic (Adt): 45	5,100 vehicles	3					Autos:	15				
Peak Hour	Percentage:	10%			Me	edium Tr	ucks (2	Axles):	15				
Peak H	our Volume:	4,510 vehicles	3		He	avy Tru	cks (3+	Axles):	15				
Vel	nicle Speed:	45 mph		V	ehicle	Miv							
Near/Far Lar	Near/Far Lane Distance: 76 feet					icleType	,	Day	Evening	Night	Daily		
Site Data						,	Autos:	77.5%	12.9%	9.6%	97.42		
Rar	rier Height:	0.0 feet			M	edium T	rucks:	84.8%	4.9%	10.3%	1.84		
Barrier Type (0-Wa	all, 1-Berm):	0.0				Heavy T	rucks:	86.5%	2.7%	10.8%	0.74		
Centerline Dis		100.0 feet		N	oise S	ource E	levation	ns (in fe	eet)				
Centerline Dist. t		100.0 feet				Auto	s: 2	.000					
Barrier Distance t		0.0 feet			Mediu	m Truck	s: 4	.000					
Observer Height (		5.0 feet			Hear	vy Truck	s: 8	.006	Grade Ad	justment	0.0		
	d Elevation:	0.0 feet				•							
	d Elevation:	0.0 feet		L	ane Eq	uivalen			feet)				
F	Road Grade:	0.0%				Auto		.547					
	Left View:	-90.0 degree				m Truck		.504					
	Right View:	90.0 degree	es		Hear	vy Truck	s: 92	.547					
FHWA Noise Mode													
VehicleType		Traffic Flow	Dista		Finite	Road	Fres		Barrier Att		m Attei		
Autos:	68.46	4.59		-4.11		-1.20		-4.87		000	0.0		
Medium Trucks:	79.45	-12.65		-4.11		-1.20		-4.97		000	0.0		
Heavy Trucks:	84.25	-16.60		-4.11		-1.20		-5.16	0.0	000	0.0		
VehicleType	Levels (witho Leg Peak Hour			attenu Leg Eve		Lea	Night	1	Ldn	0	NEL		
Autos:	67.7		65.8	Loy LV	64.1		14igiit 58.	0	66.0		67		
Medium Trucks:	61.5		60.0		53.6		52.	-	60.	-	60		
Heavy Trucks:	62.3	-	60.9		51.9		53.		61.	-	61		
Vehicle Noise:	69.6		67.8		64.7		60.		68.		69		
Centerline Distanc	e to Noise Cor	ntour (in feet)	)										
				70 dl			dBA	6	60 dBA		dBA		
			Ldn:	80		1	72		371	8	00		
			IFI:	86			85		398		58		

Tuesday, May 29, 2012

	FH\	WA-RD-77-108	HIGHV	VAY N	DISE PI	REDICTION	ON M	ODEL				
Scena	rio: Year 2016	With Project			Project Name: NNCPC							
Road Na	me: Coast High	iway				Job Nu	mber	8211				
Road Segm	ent: East of Ma	carthur										
	SPECIFIC IN	IPUT DATA							L INPUT	S		
Highway Data				S	ite Cor	ditions (	Hard	= 10, S	oft = 15)			
Average Daily	/ Traffic (Adt):	61,800 vehicle	S					Autos:	15			
Peak Hou	r Percentage:	10%				dium Tru		,				
Peak	Hour Volume:	6,180 vehicle	S		He	avy Truci	ks (3+	- Axles):	15			
	ehicle Speed:	45 mph		ν	ehicle	Mix						
Near/Far L	ane Distance:	76 feet			Veh	icleType		Day	Evening	Night	Daily	
Site Data						A	utos:	77.5%	12.9%	9.6%	97.42%	
В	arrier Height:	0.0 feet			М	edium Tru	ıcks:	84.8%	4.9%	10.3%	1.84%	
Barrier Type (0-I	Vall, 1-Berm):	0.0			- 1	Heavy Tru	ıcks:	86.5%	2.7%	10.8%	0.74%	
	Centerline Dist. to Barrier: 100.0 feet						vatio	ns (in f	eet)			
Centerline Dist		100.0 feet				Autos	. :	2.000				
Barrier Distance	e to Observer:	0.0 feet			Mediu	m Trucks		4.000				
Observer Height	. ,	5.0 feet			Heav	vy Trucks		3.006	Grade Ad	justment.	0.0	
	Pad Elevation:	0.0 feet										
R	oad Elevation:	0.0 feet		L	ane Eq	uivalent			feet)			
	Road Grade:	0.0%				Autos		2.547				
	Left View:	-90.0 degree	es		Medium Trucks: 92.504							
	Right View:	90.0 degree	es		Heav	y Trucks	: 9:	2.547				
FHWA Noise Mo	del Calculation	s										
VehicleType	REMEL	Traffic Flow	Dista		Finite	Road	Fre	snel	Barrier Att		m Atten	
Autos				-4.11		-1.20		-4.87		000	0.000	
Medium Trucks				-4.11		-1.20		-4.97		000	0.000	
Heavy Trucks	: 84.25	-15.24		-4.11		-1.20		-5.16	0.0	000	0.000	
Unmitigated Nois	se Levels (with	out Topo and	barrier	attenu	ıation)							
VehicleType	Leq Peak Hot			Leq Ev		Leq N	_		Ldn		VEL	
Autos			67.2		65.4		59		68.0	-	68.6	
Medium Trucks			61.4		55.0		53		61.9	-	62.1	
	Heavy Trucks: 63.7 62.3				53.2 54.5			62.8 63.0				
Vehicle Noise	: 70	).9	69.2		66.0		61	.4	69.	9	70.4	
Centerline Distar	nce to Noise C	ontour (in feet	)									
			L	70 d		65 d		'	60 dBA		dBA	
			Ldn:		99 213			458		987		
		CI	VEL:	106	õ	22	8		491	1,	058	