NOISE IMPACT ANALYSIS DEVIL'S GATE RESERVOIR SEDIMENT REMOVAL AND MANAGEMENT PROJECT

CITY OF PASADENA

LEAD AGENCY:

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

PREPARED BY:

VISTA ENVIRONMENTAL 1021 DIDRIKSON WAY LAGUNA BEACH, CALIFORNIA 92651 GREG TONKOVICH, INCE TELEPHONE (949) 510-5355 FACSIMILE (949) 715-3629

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ACRONYMS AND ABBREVIATIONS

ANSI American National Standards Institute
Caltrans California Department of Transportation
CEQA California Environmental Quality Act
CNEL Community Noise Equivalent Level

dB Decibel

dBA A-weighted decibels

DOT Department of Transportation FHWA Federal Highway Administration

FTA Federal Transit Administration

EPA Environmental Protection Agency

Hz Hertz

L_{dn} Day-night average noise level

 L_{eq} Equivalent sound level L_{max} Maximum noise level

ONAC Federal Office of Noise Abatement and Control
OSHA Occupational Safety and Health Administration
SEL Single Event Level or Sound Exposure Level

STC Sound Transmission Class

UMTA Federal Urban Mass Transit Administration

1.0 INTRODUCTION

1.1 Purpose of Analysis and Study Objectives

This Noise Impact Analysis has been prepared to determine the offsite and onsite noise impacts associated with the proposed Devil's Gate Reservoir Sediment Removal and Management Project (proposed project). The following is provided in this report:

- A description of the study area and the proposed project;
- Information regarding the fundamentals of noise;
- Information regarding the fundamentals of vibration;
- A description of the local noise guidelines and standards;
- An evaluation of the current noise environment;
- An analysis of the potential short-term construction-related noise impacts from the proposed project; and,
- An analysis of long-term operations-related noise impacts from the proposed project.

1.2 Site Location and Study Area

The project site is located in the City of Pasadena, in Los Angeles County. The City of La Cañada Flintridge is located on the west side of the project site and the unincorporated community of Altadena is located on the east side of the project site. The project site includes the Devil's Gate Dam and Reservoir that covers approximately 175 acres. The project site is bounded by: NASA's JPL facility and park uses on the northwest side; parking for NASA JPL facility, park uses, and residential uses on the east side; Oak Grove Drive and Interstate 210 on the south side; and Oak Grove Drive and La Cañada High School on the west side of the project site. The Project Location Map is shown in Figure 1.

1.3 Proposed Project Description

The Los Angeles County Flood Control District (LACFCD) must remove sediment that has accumulated behind the dam in order to restore the flood control capacity of Devil's Gate Reservoir and minimize the level of flood risk to downstream communities along the Arroyo Seco. In its current condition, the reservoir no longer has the available capacity to safely contain another major debris event; and the outlet works have a risk of becoming clogged and inoperable. The proposed project would remove sediment from the reservoir behind Devil's Gate Dam to restore it to its current design standard, and establish a reservoir configuration more suitable for routine maintenance activities including sediment management and enhanced water conservation.

Sediment Removal Activities

There is currently approximately 2.9 million cubic yards of excess sediment in the reservoir, however additional sediment accumulation is anticipated during the upcoming storm seasons due to the denuded surfaces of the watershed created by the 2009 Station Fire. It is estimated that an

average of 13,000 cubic yards will potentially be deposited in the reservoir annually. The preferred alternative for the proposed project would remove approximately 2.9 million cubic yards of current excess sediment in the reservoir plus any additional sediment received prior to removal completion. Figure 2 shows the project excavation boundary. In addition to the sediment excavated as part of the proposed project, sediment stockpiled at Johnson Field will also be removed.

Excavated sediment will be trucked off-site to existing disposal site locations which are currently available to accept the sediment. Possible sediment disposal locations include the Waste Management Pit in Azusa, the Manning Pit in Irwindale, or one of four sites in Sun Valley that include Bradley Landfill, Boulevard Pit, Cal-Mat Pit, and Sheldon Pit. It is estimated that the eastern disposal sites (Waste Management Pit and Manning Pit) would be used 80 percent to 100 percent of the time, while the western disposal sites (Sun Valley sites) would be used 0 percent to 20 percent of the time. Vegetation and organic debris removed from the project site would be hauled to the Scholl Canyon Landfill, located in the City of Glendale.

Maintenance Activities

The proposed project is expected to result in a reservoir configuration and access to facilitate future routine periodic maintenance and sediment removal. After the initial proposed sediment removal activities, sediment will be managed through vegetation maintenance, sediment excavation/trucking off-site, and Flow-Assisted Sediment Transport (FAST). These activities will take place under one of the options described below.

Option 1 – Full Maintenance

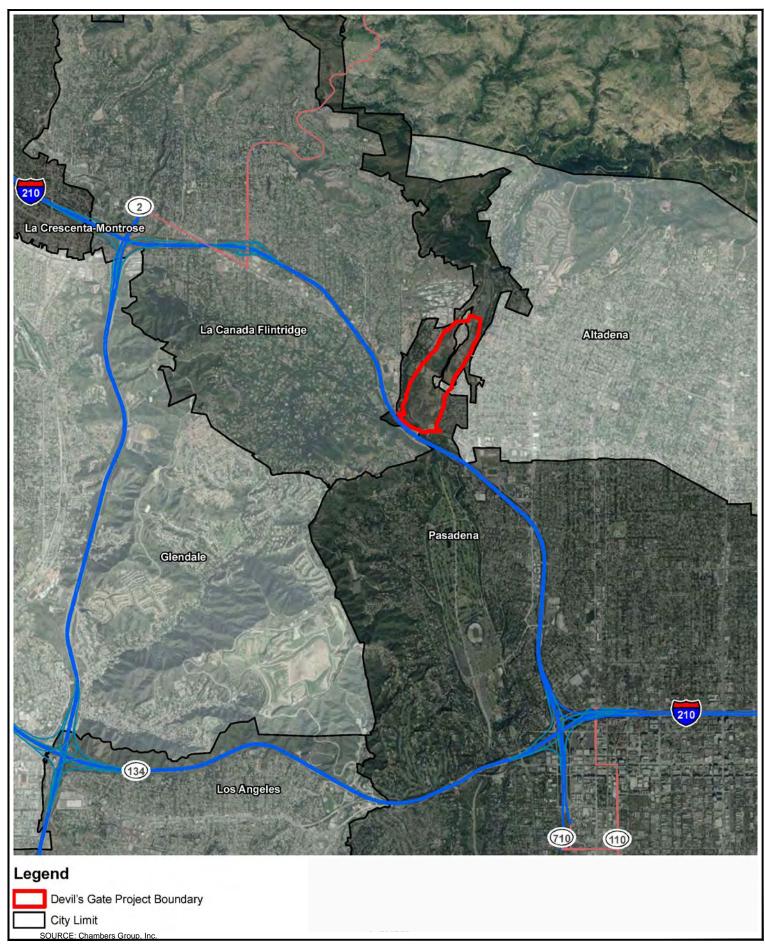
The reservoir will be maintained with the approximate cut and elevation levels that exist at the conclusion of construction activities. The vegetation within the reservoir configuration will be mowed or removed annually. During rain events FAST will be used to naturally pass sediment through the reservoir and downstream of the dam. If proper transport does not occur, sediment removal through use of mechanical equipment would be required. Based on past storm events, it is anticipated that 13,000 cubic yards of sediment would have to be excavated and trucked offsite annually. It is anticipated that this could be accomplished over a two week period, working Monday through Friday, during the late summer or early fall following the vegetation maintenance. A moderately large storm event would result in the removal of up to 170,000 cubic yards of material and would take approximately 12 weeks of excavation and hauling activities.

Option 2 – Reduced Maintenance

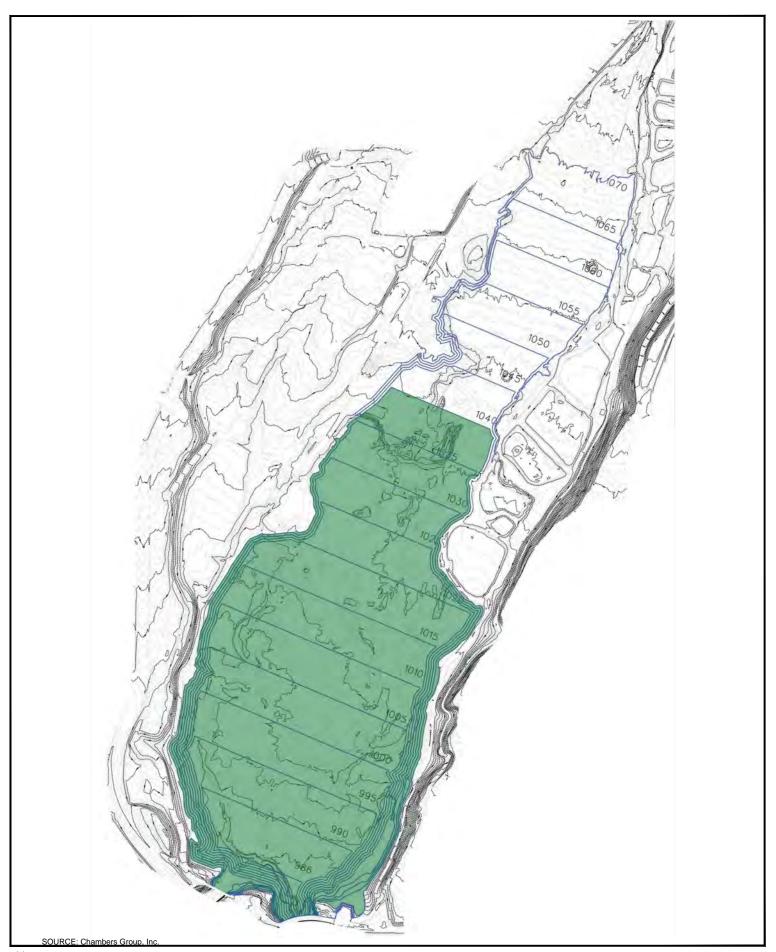
The area from the dam upstream to an elevation 1,040 feet, which covers an approximately 91 acre area will be maintained, while the remainder area above 1,040 feet will be allowed to naturally re-establish vegetation. The area under 1,040 will be maintained in a similar manner as Option 1, however if sediment above the 1,040 foot elevation exceeds 1 million cubic yards, the County of Los Angeles Department of Public Works (Public Works) will initiate the CEQA process for a new large-scale sediment removal process. Figure 3 shows the extents of the reduced maintenance boundary for Option 2.

1.4 Proposed Project Schedule

Construction of the proposed project is anticipated to occur between summer 2015 and summer 2020. Excavation and associated activities within the reservoir area are expected to take place during the drier months, from April to December, Monday through Saturday (except on holidays), as weather permits. During dry years work could potentially start earlier and/or continue later. Onsite excavation activities will take place between the hours of 7:00 a.m. and 6:00 p.m. Standard Time and between 7:00 a.m. and 7:00 p.m. Daylight Savings Time, Monday through Friday and between 8:00 a.m. and 5:00 p.m. on Saturday.







2.0 NOISE FUNDAMENTALS

Noise is 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. Sound is produced by the vibration of sound pressure waves in the air. Sound pressure levels are used to measure the intensity of sound and are described in terms of decibels. The decibel (dB) is a logarithmic unit which expresses the ratio of the sound pressure level being measured to a standard reference level. A-weighted decibels (dBA) approximate the subjective response of the human ear to a broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear.

2.1 Noise Descriptors

Noise Equivalent sound levels are not measured directly, but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. The peak traffic hour Leq is the noise metric used by California Department of Transportation (Caltrans) for all traffic noise impact analyses.

The Day-Night Average Level (Ldn) 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 ten decibels to sound levels at night between 10 p.m. and 7 a.m. While the Community Noise Equivalent Level (CNEL) is similar to the Ldn, except that it has another addition of 4.77 decibels to sound levels during the evening hours between 7 p.m. and 10 p.m. These additions are made to the sound levels at these time periods because during the evening and nighttime hours, when compared to daytime hours, there is a decrease in the ambient noise levels, which creates an increased sensitivity to sounds. For this reason the sound appears louder in the evening and nighttime hours and is weighted accordingly. The City of Pasadena and County of Los Angeles rely on the CNEL noise standard to assess transportation-related impacts on noise sensitive land uses.

2.2 Tone Noise

A pure tone noise is a noise produced at a single frequency and laboratory tests have shown that humans are more perceptible to changes in noise levels of a pure tone. For a noise source to contain a "pure tone," there must be a significantly higher A-weighted sound energy in a given frequency band than in the neighboring bands, thereby causing the noise source to "stand out" against other noise sources. A pure tone occurs if the sound pressure level in the one-third octave band with the tone exceeds the average of the sound pressure levels of the two contiguous one-third octave bands by:

- 5 dB for center frequencies of 500 hertz (Hz) and above
- 8 dB for center frequencies between 160 and 400 Hz
- 15 dB for center frequencies of 125 Hz or less

2.3 Noise Propagation

From the noise source to the receiver, noise changes both in level and frequency spectrum. The most obvious is the decrease in noise as the distance from the source increases. The manner in which noise reduces with distance depends on whether the source is a point or line source as well as ground absorption, atmospheric effects and refraction, and shielding by natural and manmade features. Sound from point sources, such as air conditioning condensers, radiate uniformly outward as it travels away from the source in a spherical pattern. The noise drop-off rate associated with this geometric spreading is 6 dBA per each doubling of the distance (dBA/DD). Transportation noise sources such as roadways are typically analyzed as line sources, since at any given moment the receiver may be impacted by noise from multiple vehicles at various locations along the roadway. Because of the geometry of a line source, the noise drop-off rate associated with the geometric spreading of a line source is 3 dBA/DD.

2.4 Ground Absorption

The sound drop-off rate is highly dependent on the conditions of the land between the noise source and receiver. To account for this 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. For point sources, a drop-off rate of 7.5 dBA/DD is typically observed over soft ground with landscaping, as compared with a 6.0 dBA/DD drop-off rate over hard ground such as asphalt, concrete, stone and very hard packed earth. For line sources a 4.5 dBA/DD is typically observed for soft-site conditions compared to the 3.0 dBA/DD drop-off rate for hard-site conditions. Caltrans research has shown that the use of soft-site conditions is more appropriate for the application of the Federal Highway Administration (FHWA) traffic noise prediction model used in this analysis.

3.0 GROUND-BORNE VIBRATION FUNDAMENTALS

Ground-borne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of ground-borne vibrations typically only cause a nuisance to people, but at extreme vibration levels damage to buildings may occur. Although ground-borne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Ground-borne noise is an effect of ground-borne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may also consist of the rattling of windows or dishes on shelves.

3.1 Vibration Descriptors

There are several different methods that are used to quantify vibration amplitude such as the maximum instantaneous peak in the vibrations velocity, which is known as the peak particle velocity (PPV) or the root mean square (rms) amplitude of the vibration velocity. Due to the typically small amplitudes of vibrations, vibration velocity is often expressed in decibels and is denoted as (L_v) and is based on the rms velocity amplitude. A commonly used abbreviation is "VdB", which in this text, is when L_v is based on the reference quantity of 1 micro inch per second.

3.2 Vibration Perception

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

3.3 Vibration Propagation

The propagation of ground-borne vibration is not as simple to model as airborne noise. This is due to the fact that noise in the air travels through a relatively uniform median, while ground-borne vibrations travel through the earth which may contain significant geological differences. There are three main types of vibration propagation; surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse or "side-to-side and perpendicular to the direction of propagation."

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. As stated above, this drop-off rate can vary greatly depending on the soil but

has been shown to be effective enough for screening purposes, in order to identify potent vibration impacts that may need to be studied through actual field tests.	tial

4.0 REGULATORY SETTING

The project site is located in the City of Pasadena and is adjacent to the City of La Cañada Flintridge and the community of Altadena, which is an unincorporated area of the County of Los Angeles. Noise regulations are addressed through the efforts of various federal, state, and local government agencies. The agencies responsible for regulating noise are discussed below.

4.1 Federal Regulations

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Promulgating noise emission standards for interstate commerce
- Assisting state and local abatement efforts
- Promoting noise education and research

The Federal Office of Noise Abatement and Control (ONAC) was initially tasked with implementing the Noise Control Act. However, the ONAC has since been eliminated, leaving the development of federal noise policies and programs to other federal agencies and interagency committees. For example, the Occupational Safety and Health Administration (OSHA) agency prohibits exposure of workers to excessive sound levels. The Department of Transportation (DOT) assumed a significant role in noise control through its various operating agencies. The Federal Aviation Administration (FAA) regulates noise of aircraft and airports. transportation system noise is regulated by a host of agencies, including the Federal Transit Transit noise is regulated by the federal Urban Mass Transit Administration (FTA). Administration (UMTA), while freeways that are part of the interstate highway system are regulated by the Federal Highway Administration (FHWA). Finally, the federal government actively advocates that local jurisdictions use their land use regulatory authority to arrange new development in such a way that "noise sensitive" uses are either prohibited from being sited adjacent to a highway or, alternately that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Although the proposed project is not under the jurisdiction of the FTA, the FTA is the only agency that has defined what constitutes a significant noise impact from implementing a project. The FTA standards are based on extensive studies by the FTA and other governmental agencies on the human effects and reaction to noise and a summary of the FTA findings are provided below in Table A.

Since the federal government has preempted the setting of standards for noise levels that can be emitted by the transportation sources, local jurisdictions are restricted to regulating the noise generated by the transportation system through nuisance abatement ordinances and land use planning.

Table A – FTA Project Effects on Cumulative Noise Exposure

Existing Noise Exposure	Allowable Noise Impact Exposure dBA Leq or Ldn			
(dBA Leq or Ldn)	Project Only	Combined	Noise Exposure Increase	
45	51	52	+7	
50	53	55	+5	
55	55	58	+3	
60	57	62	+2	
65	60	66	+1	
70	64	71	+1	
75	65	75	0	

Source: Federal Transit Administration, 2006.

4.2 State Regulations

Noise Standards

California Department of Health Services Office of Noise Control

Established in 1973, the California Department of Health Services Office of Noise Control (ONC) was instrumental in developing regularity tools to control and abate noise for use by local agencies. One significant model is the "Land Use Compatibility for Community Noise Environments Matrix," which allows the local jurisdiction to clearly delineate compatibility of sensitive uses with various incremental levels of noise and which is shown below in Figure 4.

California Noise Insulation Standards

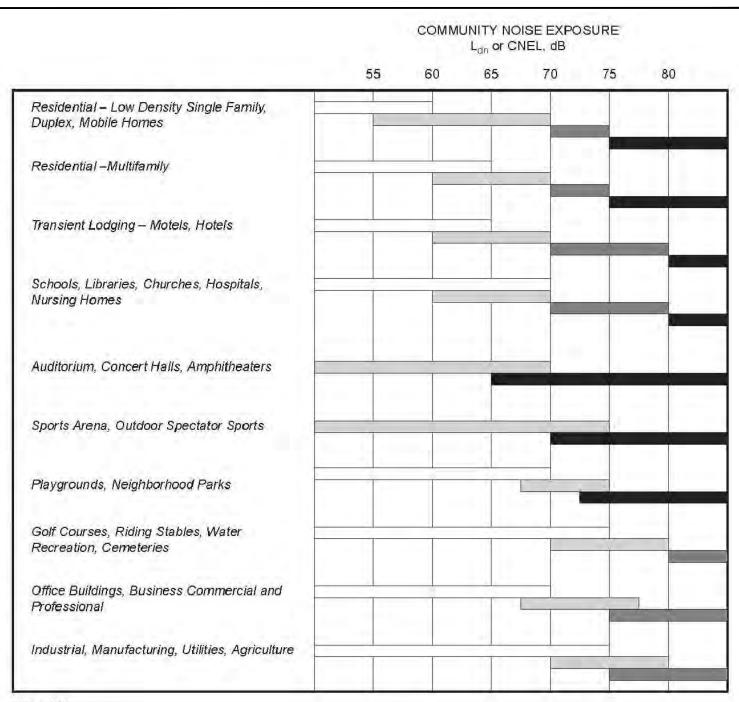
Title 24, Chapter 1, Article 4 of the California Administrative Code (California Noise Insulation Standards) requires noise insulation in new hotels, motels, apartment houses, and dwellings (other than single-family detached housing) that provides an annual average noise level of no more than 45 dBA CNEL. When such structures are located within a 60-dBA CNEL (or greater) noise contour, an acoustical analysis is required to ensure that interior levels do not exceed the 45-dBA CNEL annual threshold. In addition, Title 21, Chapter 6, Article 1 of the California Administrative Code requires that all habitable rooms, hospitals, convalescent homes, and places of worship shall have an interior CNEL of 45 dB or less due to aircraft noise.

Government Code Section 65302

Government Code Section 65302 mandates that the legislative body of each county and city in California adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable.

4.3 Local Regulations

The project site is located in the City of Pasadena, the community of Altadena, which is an unincorporated area of Los Angeles County is located adjacent to the east side of the project site, and La Cañada Flintridge is located on the west side of the project site. The applicable policies



LEGEND:

NORMALLY ACCEPTABLE

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

NORMALLY UNACCEPTABLE

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and neede noise insulation features included in the design.

CONDITIONALLY ACCEPTABLE

New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

CLEARLY UNACCEPTABLE

New construction or development should generally not be undertaken.

Source California Department of Health Guidelines for the Preparation and Content of Noise Elements of the General Plan. November, 1990

related to noise and vibration from the above jurisdictions General Plans and Municipal Codes are provided below.

County of Los Angeles General Plan Noise and Vibration Policies

- **N 1.1** Employ effective noise abatement to achieve acceptable levels of noise as defined by the Los Angeles County Exterior Noise Standards.
- **N1.2** Ensure the compatibility of land uses throughout the County to minimize excessive noise levels.
- **N 1.3** Ensure the compatibility of land uses throughout the County to minimize excessive noise levels.
- **N 2.3** Mitigate exterior and interior noises to the levels listed in the table below to the extent feasible, for stationary sources:

Table B – Los Angeles County Exterior Noise Standards

Noise Zone Level	e e e e e e e e e e e e e e e e e e e		Exterior Noise (dB)
I	Noise-sensitive area, designated to ensure exceptional quiet	Anytime	45
II	Residential properties, zoned as such in the County Code Title 22	10:00 p.m. to 7:00 a.m. (nighttime) 7:00 a.m. to 10:00 p.m. (daytime)	45 50
III	Commercial properties, zoned as such in the County Code Title 22	10:00 p.m. to 7:00 a.m. (nighttime) 7:00 a.m. to 10:00 p.m. (daytime)	55 60
IV	Industrial properties, zoned as such in the County Code Title 22	Anytime	70

Source: Los Angeles County General Plan, 2007.

County of Los Angeles Municipal Code

The County of Los Angeles Municipal Code establishes the following applicable standards related to noise.

12.08.440 Construction noise.

- A. Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance issued by the health officer is prohibited.
- B. Noise Restrictions at Affected Structures. The contractor shall conduct construction activities in such a manner that the maximum noise levels at the affected buildings will not exceed those listed in the following schedule:
 - 1. At Residential Structures.
 - a. Mobile Equipment. Maximum noise levels for nonscheduled, intermittent, short-term operation (less than 10 days) of mobile equipment:

Table C – Los Angeles County Mobile Equipment Construction Noise

	Single-Family Residential	Multi-Family Residential	Semi-Residential/ Commercial
Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m.	75 dBA	80 dBA	85 dBA
Daily, 8:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	60 dBA	64 dBA	70 dBA

Source: Los Angeles County Municipal Code Section 12.08.440.

b. Stationary Equipment. Maximum noise level for repetitively scheduled and relatively long-term operation (10 days or more) of stationary equipment:

Table D – Los Angeles County Stationary Equipment Construction Noise

	Single-Family Residential	Multi-Family Residential	Semi-Residential/ Commercial
Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m.	60 dBA	65 dBA	70 dBA
Daily, 8:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	50 dBA	55 dBA	60 dBA

Source: Los Angeles County Municipal Code Section 12.08.440.

2. At Business Structures.

a. Mobile equipment. Maximum noise levels for nonscheduled, intermittent, short-term operation of mobile equipment:

Daily, including Sunday and legal holidays, all hours: maximum of 85 dBA.

- C. All mobile or stationary internal-combustion-engine powered equipment or machinery shall be equipped with suitable exhaust and air-intake silencers in proper working order.
- D. In case of a conflict between this chapter and any other ordinance regulating construction activities, provisions of any specific ordinance regulating construction activities shall control.

12.08.560 Vibration.

Operating or permitting the operation of any device that creates vibration which is above the vibration perception threshold of any individual at or beyond the property boundary of the source if on private property, or at 150 feet (46 meters) from the source if on a public space or public right-of-way is prohibited. The perception threshold shall be a motion velocity of 0.01 in/sec over the range of 1 to 100 Hertz.

12.08.570 Activities exempt from chapter restrictions.

The following activities set out in this chapter shall be exempted from the provisions of this chapter:

H. Public Health and Safety Activities. All transportation, flood control, and utility company maintenance and construction operations at any time on public right-of-way, and those situations which may occur on private real property deemed necessary to serve

the best interest of the public and to protect the public's health and well being, including but not limited to street sweeping, debris and limb removal, removal of downed wires, restoring electrical service, repairing traffic signals, unplugging sewers, snow removal, house moving, vacuuming catchbasins, removal of damaged poles and vehicles, repair of water hydrants and mains, gas lines, oil lines, sewers, etc.;

City of La Cañada Flintridge General Plan Noise and Vibration Policies

- **NE 1.1.5** Require developers to implement noise abatement that meets Caltrans' acoustical criteria or other standards established by the City, if new developments cause increases in traffic volumes that result in roadway noise levels greater than 65 dB CNEL at sensitive receptors.
- **NE 2.2.2** Require new development to minimize noise impacts on adjacent uses through site and building design, setbacks, berms, landscaping, and/or other noise abatement techniques.

City of La Cañada Flintridge Municipal Code

The City of La Cañada Flintridge Municipal Code establishes the following applicable standards related to noise.

5.36.010 Construction noise prohibited when.

Except as otherwise provided in this chapter, a person may perform any construction or repair work of any kind upon any building or structure, or perform any earth excavating, filling or moving, where any of the foregoing entails the use of any air compressors; jackhammers; power-driven drill, riveting machine; excavator, diesel-powered truck, tractor or other earth moving equipment; hand hammers on steel or iron; or any other machine, tool, device or equipment which makes loud noises exceeding a decibel level of sixty-five (65) dBA as measured from any adjacent residential property line during the following hours:

During Standard Time: During Daylight Savings Time:

Monday-Friday: 7:00 a.m. to 6:00 p.m. 7:00 a.m. to 7:00 p.m. Saturday: 9:00 a.m. to 5:00 p.m. 9:00 a.m. to 5:00 p.m.

Sunday: None None None None

City of Pasadena General Plan Noise and Vibration Policies

- **7b** The City will encourage limitations on construction activities adjacent to sensitive noise receptors as defined in Figure.
- 7c The City will encourage construction and landscaping activities that employ techniques to minimize noise.

7d The City will enforce noise level restrictions contained in the City of Pasadena Noise Regulations (Chapter 9.36 of the Municipal Code), except during federal, State, or local emergencies (such as power generators required for emergencies).

City of Pasadena Municipal Code

The City of Pasadena Municipal Code establishes the following applicable standards related to noise.

9.36.070 Construction projects.

- A. No person shall operate any pile driver, power shovel, pneumatic hammer, derrick power hoist, forklift, cement mixer, or any other similar construction equipment within a residential district or within a radius of 500 feet therefrom at any time other than as listed below:
 - 1. From 7:00 a.m. to 7:00 p.m. Monday through Friday;
 - 2. From 8:00 a.m. to 5:00 p.m. on Saturday;
 - 3. Operation of any of the listed construction is prohibited on Sundays and holidays.
- B. No person shall perform any construction or repair work on buildings, structures, or projects within a residential district or within a radius of 500 feet therefrom in such a manner that a reasonable person of normal sensitiveness residing in the area is caused discomfort or annoyance at any time other than as listed below:
 - 1. From 7:00 a.m. to 7:00 p.m. Monday through Friday;
 - 2. From 8:00 a.m. to 5:00 p.m. on Saturday;
 - 3. Performance of construction or repair work is prohibited on Sundays and holidays.

9.36.080 Construction equipment.

It is unlawful for any person to operate any powered construction equipment if the operation of such equipment emits noise at a level in excess of 85 dBA when measured within a radius of 100 feet from such equipment.

9.36.170 Exemptions.

A. This chapter is not intended to regulate construction or maintenance and repair activities conducted by public agencies or their contractors necessitated by emergency conditions or deemed necessary by the city to serve the best interests of the public and to protect the public health, safety and welfare. These operations may include, but are not limited to, street sweeping, debris and limb removal, removal of downed wires, restoring electrical service, repairing traffic lights, unplugging sewers, vacuuming catch basins, repairing water hydrants and mains, gas lines, oil lines, storm drains, roads, sidewalks, etc.

5.0 MODELING PARAMETERS AND ASSUMPTIONS

5.1 On-Site Construction Equipment Noise

The noise impacts from construction of the proposed project have been analyzed through use of the Federal Highway Administration's (FHWA) Roadway Construction Noise Model (RCNM). The FHWA compiled noise measurement data regarding the noise generating characteristics of several different types of construction equipment used during the Central Artery/Tunnel project in Boston. Table E below provides a list of the construction equipment measured along with the associated measured noise emissions and measured percentage of typical equipment use per day. From this acquired data the FHWA developed the RCNM, which may be used for the prediction of construction noise.

Table E – Construction Equipment Noise Emissions and Usage Factors

Equipment Description	Acoustical Use Factor ¹ (percent)	Spec 721.560 Lmax at 50 feet ² (dBA, slow ³)	Actual Measured Lmax at 50 feet ⁴ (dBA, slow ³)
All Other Equipment > 5 HP	50	85	N/A
Auger Drill Rig	20	85	84
Backhoe	40	80	78
Chain Saw	20	85	84
Compactor (ground)	20	80	83
Compressor (air)	40	80	78
Concrete Mixer Truck	40	85	79
Concrete Pump	20	82	81
Concrete Saw	20	90	90
Crane	16	85	81
Dozer	40	85	82
Drill Rig Truck	20	84	79
Drum Mixer	50	80	80
Dump Truck	40	84	76
Excavator	40	85	81
Flat Bed Truck	40	84	74
Front End Loader	40	80	79
Generator	50	82	81
Generator (<25KVA, VMS signs)	50	70	73
Gradall	40	85	83
Grader	40	85	N/A
Grapple (on backhoe)	40	85	87
Horizontal Boring Hydr. Jack	25	80	82
Hydra Break Ram	10	90	N/A
Impact Pile Driver	20	95	101
Jackhammer	20	85	89
Man Lift	20	85	75
Mounted Impact Hammer (hoe ram)	20	90	90
Pavement Scarafier	20	85	90
Paver	50	85	77
Pickup Truck	40	55	75

Table E – Construction Equipment Noise Emissions and Usage Factors

Equipment Description	Acoustical Use Factor ¹ (percent)	Spec 721.560 Lmax at 50 feet ² (dBA, slow ³)	Actual Measured Lmax at 50 feet ⁴ (dBA, slow ³)
Pneumatic Tools	50	85	85
Pumps	50	77	81
Refrigerator Unit	100	82	73
Rivit Buster/chipping gun	20	85	79
Rock Drill	20	85	81
Roller	20	85	80
Sand Blasting (Single Nozzle)	20	85	96
Scraper	40	85	84
Shears (on backhoe)	40	85	96
Tractor	40	84	N/A
Vacuum Street Sweeper	10	80	82
Vibratory Concrete Mixer	20	80	80
Vibratory Pile Driver	20	95	101
Warning Horn	5	85	83
Welder / Torch	40	73	74
NT 4			

Notes:

Source: Federal Highway Administration, 2006.

Construction noise impacts to the nearby sensitive receptors have been calculated according to the equipment noise levels and usage factors listed in Table E and through use of the RCNM and the equipment list provided in the Air Quality Analysis prepared for the proposed project. The equipment was placed at the nearest locations to the nearby sensitive receptors and each piece of equipment was placed 100 feet apart.

5.2 Off-Site Vehicular Noise

The proposed project would require the export of material from the project site through the use of trucks as well as vehicle trips from workers to the project site. In order to quantify the potential noise impacts created and received by the proposed project and compare them to the existing noise levels, the existing roadway noise environment was modeled using the FHWA Traffic Noise Prediction Model - FHWA-RD-77-108 (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 reference energy mean emission level to account for 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) and the percentage of ADT which flows during the day, evening and night, the travel speed, the vehicle mix on the roadway, which is a percentage of the volume of automobiles, medium trucks and heavy trucks, the roadway grade, the angle of view of the observer exposed to the roadway and site conditions ("hard" or "soft" relates to the absorption of the ground, pavement or

Acoustical use factor is the percentage of time each piece of equipment is operational during a typical workday.

² Spec 721.560 is the equipment noise level utilized by the RCNM program.

³ The "slow" response averages sound levels over 1-second increments. A "fast" response averages sound levels over 0.125-second increments.

⁴ Actual Measured is the average noise level measured of each piece of equipment during the Central Artery/Tunnel project in Boston, Massachusetts primarily during the 1990s.

landscaping). The following section provides a discussion of the software and modeling input parameters used in this analysis and a discussion of the resultant existing noise model.

FHWA Model Roadway Parameters

The roadway parameters used for this study are presented in Table F. Only the roadway segments that the proposed project may generate additional vehicular trips and had sensitive land uses (i.e., residential, school, parks, libraries, and hospitals) were analyzed.

The roadway classifications are based on the roadway jurisdiction's General Plan Circulation Element. The roadway speeds are based on the posted speed limits. The distance to the nearest sensitive receptor was determined by measuring the distance from the roadway centerline to the nearest residence, school, park, or hospital. Soft site conditions were used to develop noise contours and analyze noise impacts to the project site. Soft sites have an absorptive ground surface such as soft dirt, grass, or scattered bushes and trees.

Table F – FHWA Model Roadway Parameters

Roadway	Segment	General Plan Roadway Classification	Jurisdiction	Vehicle Speed (MPH)	Distance to Nearest Receptor (feet)	
Site 1 – Devil's Ga	ate Dam and Reservoir					
Berkshire Place	East of I-210 Northbound Ramps ¹	Major	La Cañada Flintridge	30	75	
Oak Grove Drive	South of Berkshire Place ²	Major	La Cañada Flintridge	35	75	
Oak Grove Drive	East of Foothill Fwy Overpass ³	Primary Arterial	Pasadena	40	85	
Windsor Avenue	North of I-210 Northbound Ramps ³	Minor Arterial	Los Angeles County	35	65	
Sites 2 and 3 – Ma	anning Pit and Waste Manageme	ent Pit				
Vincent Avenue	South of Gladstone Street ³	Secondary Arterial	Azusa	45	55	
Vincent Avenue	South of Arrow Highway ³	Secondary Arterial	Los Angeles County	45	50	
Arrow Highway	East of Vincent Avenue ³	Principal Arterial	Azusa	45	60	
Arrow Highway	East of Lark Ellen Avenue ³	Principal Arterial	Los Angeles County	45	60	
Arrow Highway	East of Enid Avenue ¹	Principal Arterial	Covina	45	60	
Azusa Avenue	North of Arrow Highway ³	Principal Arterial	Azusa	45	60	
Azusa Avenue	North of Gladstone Street ³	Principal Arterial	Azusa	35	65	
Site 4 – Scholl Canyon Landfill						
Scholl Canyon Road	North of SR-134 Westbound Ramps ³	Hillside	City of Los Angeles	35	45	
Figueroa Street	South of Eagle Vista Drive ⁴	Secondary	City of Los Angeles	35	55	

Table F – FHWA Model Roadway Parameters

Roadway	Segment	General Plan Roadway Classification	Jurisdiction	Vehicle Speed (MPH)	Distance to Nearest Receptor (feet)
Sites 5, 6, 7, and 8	8 – Bradley Landfill, Boulevard F	Pit, Cal-Mat Pit an	d Sheldon Pit		
Foothill Boulevard	South of I-210 Westbound Ramps ³	Major	City of Los Angeles	45	110
Osborne Street	West of Foothill Boulevard ⁴	Major	City of Los Angeles	40	60
Glen Oaks Boulevard	South of Osborne Street ³	Major	City of Los Angeles	45	60
Glen Oaks Boulevard	South of Penrose Street ³	Major	City of Los Angeles	45	55
Glen Oaks Boulevard	South of Sunland Boulevard ³	Major	City of Los Angeles	45	60
Foothill Boulevard	East of Wheatland Avenue ³	Major	City of Los Angeles	50	65
Wentworth Street	South of Foothill Boulevard ³	Secondary	City of Los Angeles	45	60
Osborne Street	East of I-5 Northbound Ramps ³	Major	City of Los Angeles	35	85
Laurel Canyon Boulevard	South of Osborne Street ³	Major	City of Los Angeles	35	60
Branford Street	East of Laurel Canyon Boulevard ³	Secondary	City of Los Angeles	35	50
Branford Street	West of Laurel Canyon Boulevard ³	Secondary	City of Los Angeles	35	65
San Fernando Road	South of Branford Street ⁵	Major	City of Los Angeles	35	190

Notes:

Source: City of Azusa, 2004; City of Covina, 2000; City of La Cañada Flintridge, 2013; City of Los Angeles, 1999; City of Pasadena, 2004; County of Los Angeles, 2004.

FHWA Model Traffic Volumes

The average daily traffic (ADT) volumes on the study area roadways were obtained from the Devil's Gate Reservoir Sediment Removal and Management Project Traffic Impact Analysis (Traffic Impact Analysis), prepared by Hall & Foreman, Inc., March 28, 2013. Since the Traffic Impact Analysis only provided peak hour volumes, the ADT was calculated by multiplying the sum of all peak hours by 3 for Site 1 and 4 for all other sites. For Site 1, there were 4 peak hour periods provided (7 a.m. to 9 a.m., 12 p.m. to 2 p.m., 2 p.m. to 4 p.m. and 4 p.m. to 6 p.m. [8 hours total]). For all other sites there were 3 peak hour periods provided (7 a.m. to 9 a.m., 12 p.m. to 2 p.m. and 4 p.m. to 6 p.m. [6 hours total]).

¹ Nearest sensitive receptor is a school.

² Nearest sensitive receptor is a church.

³ Nearest sensitive receptor is residential.

⁴ Nearest sensitive receptor is a park.

⁵ Nearest sensitive receptor is a hospital.

The ADT volumes have been provided for the existing year, year 2030 baseline, and year 2030 with project scenarios. The ADT volumes used in this analysis are shown in Table G for Devil's Gate Dam Area (Site 1), Table H for Manning Pit (Site 2), Table I for Scholl Canyon Landfill (Site 4), Table J for Sheldon Pit (Site 5), Cal-Mat Pit (Site 6), and Bradley Landfill (Site 7), and Table K for Boulevard Pit (Site 8). The routes to Waste Management Pit (Site 3) and Vulcan Materials (Site 9) do not pass by any sensitive receptors so they have not been analyzed.

Table G – Average Daily Traffic Volumes for Site 1 – Devil's Gate Dam Area

				A	verage Da	aily Traff	ic Volume	es		
Roadway	Segment	Existing	_	_	_	Existing + Route 1D	_	_	_	_
Berkshire Place	East of I-210 Northbound Ramps	8,000	8,442	8,000	8,221	8,221	8,442	8,000	8,221	8,221
Oak Grove Drive	South of Berkshire Place	6,000	6,442	6,000	6,221	6,221	6,442	6,000	6,221	6,221
Oak Grove Drive	East of Foothill Fwy Overpass	6,400	6,400	6,842	6,621	6,621	6,400	6,842	6,621	6,621
Windsor Avenue	North of I-210 Northbound Ramps	21,700	21,700	22,142	21,921	21,921	21,700	22,142	21,921	21,921

Source: Hall & Foreman, 2013.

Table H – Average Daily Traffic Volumes for Site 2 – Manning Pit

		Average Daily Traffic				
Roadway	Segment	Existing	Existing + Route 2A	Existing + Route 2B		
Vincent Avenue	South of Gladstone Street	8,600	9,025	8,813		
Vincent Avenue	South of Arrow Highway	10,600	11,025	11,025		
Arrow Highway	East of Vincent Avenue	23,400	23,400	23,613		
Arrow Highway	East of Lark Ellen Avenue	23,800	23,800	24,013		
Arrow Highway	East of Enid Avenue	24,500	24,500	24,713		
Azusa Avenue	North of Arrow Highway	20,900	20,900	21,113		
Azusa Avenue	North of Gladstone Street	23,200	23,200	23,413		

Notes: Route 3 to Waste Management Pit, does not pass by any sensitive receptors and therefore has not been analyzed. Source: Hall & Foreman, 2013.

Table I – Average Daily Traffic Volumes for Site 4 – Scholl Canyon Landfill

		Average Daily Traffic				
Roadway	Segment	Existing	Existing + Route 4A	Existing + Route 4B		
Scholl Canyon Road	North of SR-134 Westbound Ramps	1,000	1,425	1,425		
Figueroa Street	South of Eagle Vista Drive	10,600	10,813	11,025		

Source: Hall & Foreman, 2013.

Table J – Average Daily Traffic Volumes for Sites 5, 6, and 7 – Sheldon Pit, Cal-Mat Pit and Bradley Landfill

		Average Daily Traffic				
Roadway	Segment	Existing	Existing + Route 5A	Existing + Route 5B	Existing + Route 5C	
Foothill Boulevard	South of I-210 Westbound Ramps	13,700	14,125	13,700	13,700	
Osborne Street	West of Foothill Boulevard	14,300	14,725	14,300	14,300	
Glen Oaks Boulevard	South of Osborne Street	24,300	24,725	24,300	24,300	
Glen Oaks Boulevard	South of Penrose Street	15,300	15,300	15,725	15,300	
Glen Oaks Boulevard	South of Sunland Boulevard	18,000	18,000	18,425	18,000	
Foothill Boulevard	East of Wheatland Avenue	6,500	6,500	6,500	6,925	
Wentworth Street	South of Foothill Boulevard	9,800	9,800	9,800	10,225	

Source: Hall & Foreman, 2013.

Table K – Average Daily Traffic Volumes for Site 8 – Boulevard Pit

		Average Daily Traffic			
Roadway	Segment	Existing	Existing + Route 8A	Existing + Route 8B	Existing + Route 8C
Foothill Boulevard	East of Wheatland Avenue	6,500	6,500	6,500	6,925
Wentworth Street	South of Foothill Boulevard	9,800	9,800	9,800	10,225
Osborne Street	East of I-5 Northbound Ramps	30,600	30,600	31,025	30,600
Laurel Canyon Boulevard	South of Osborne Street	18,300	18,300	18,725	18,300
Branford Street	East of Laurel Canyon Boulevard	10,500	10,925	10,925	10,500
Branford Street	West of Laurel Canyon Boulevard	12,000	12,425	12,000	12,000
San Fernando Road	South of Branford Street	15,900	15,900	15,900	16,325

Notes: Route 9 to Vulcan Materials, does not pass by any sensitive receptors and therefore has not been analyzed.

Source: Hall & Foreman, 2013.

FHWA Model Vehicle Mix Assumptions

The without project vehicle mix used in the FHWA-RD-77-108 Model is shown in Table L and is based on the typical vehicle mix observed in Southern California for arterial roads. The with

project vehicle mixes were adjusted to account for the addition of 425 heavy trucks during the daytime and the calculated vehicle mixes used for each site is provided in Appendix C.

Table L – Roadway Vehicle Mix

	Traffic Flow Distributions					
Vehicle Type	Day (7 a.m. to 7 p.m.)	Evening (7 p.m. to 10 p.m.)	Night (10 p.m. to 7 a.m.)	Overall		
Automobiles	69.50%	12.90%	9.60%	92.00%		
Medium Trucks	1.44%	0.06%	1.50%	3.00%		
Heavy Trucks	2.40%	0.10%	2.50%	5.00%		

Source: Vista Environmental.

FHWA Model Source Assumptions

To assess the roadway noise generation in a uniform manner, all vehicles are analyzed at the single lane equivalent acoustic center of the roadway being analyzed. In order to determine the height above the road grade where the noise is being emitted from, each type of vehicle has been analyzed independently with autos at road grade, medium trucks at 2.3 feet above road grade, and heavy trucks at 8 feet above road grade. These elevations were determined through a noise-weighted average of the elevation of the exhaust pipe, tires, and mechanical parts in the engine, which are the primary noise emitters from a vehicle.

5.3 Vibration

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of the construction site respond to these vibrations with varying results ranging from no perceptible effects at the low levels to slight damage at the highest levels. Table M gives approximate vibration levels for particular construction activities. The data in Table M provides a reasonable estimate for a wide range of soil conditions.

Table M – Vibration Source Levels for Construction Equipment

Equipment		Peak Particle Velocity (inches/second)	Approximate Vibration Level (L_v) at 25 feet
Dila driver (impeat)	Upper range	1.518	112
Pile driver (impact)	typical	0.644	104
Dila dairea (conic)	Upper range	0.734	105
Pile driver (sonic)	typical	0.170	93
Clam shovel drop (slurry wall)		0.202	94
Hydromill	In soil	0.008	66
(slurry wall)	In rock	0.017	75
Vibratory Roller		0.210	94
Hoe Ram		0.089	87
Large bulldozer		0.089	87
Caisson drill		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79
Small bulldozer		0.003	58

Source: Federal Transit Administration, May 2006.

The construction-related and operational vibration impacts have been calculated through the vibration levels shown above in Table M and through typical vibration propagation rates. The equipment assumptions were based on the equipment lists provided in the Air Quality Analysis, which found that the vibration-causing equipment would be limit to bulldozers and loaded trucks.

6.0 EXISTING NOISE CONDITIONS

To determine the existing noise level environment, noise measurements have been taken in the vicinity of the project site by Chambers Group. The field survey noted that noise within the proposed project area is generally characterized by vehicular traffic on the nearby roadways. The following describes the measurement procedures, measurement locations, noise measurement results, and the modeling of the existing noise environment.

6.1 Noise Measurement Equipment

The noise measurements were taken using a Larson-Davis Model 820 Type 1 precision sound level meter programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meter and microphone were mounted on a tripod five feet above the ground and were equipped with a windscreen during all measurements. The sound level meter was calibrated before and after the monitoring. The accuracy of the calibrator is maintained through a program established through the manufacturer and is traceable to the National Bureau of Standards. The unit meets the requirements of ANSI Standard S1.4-1984 and IEC Standard 942: 1988 for Class 1 equipment. All noise level measurement equipment meets American National Standards Institute (ANSI) specifications for sound level meters (S1.4-1983 identified in Chapter 19.68.020.AA).

Noise Measurement Locations

The noise monitoring locations were selected in order to obtain noise measurements of the current noise sources impacting the project site and to provide a baseline for any potential noise impacts that may be created by the proposed project. A description of the noise monitoring sites is provided below in Table D. Appendix A includes aerial photos of the noise level measurement locations.

Noise Measurement Timing and Climate

The noise measurements were recorded between 12:08 p.m. and 5:36 p.m. on June 3, 2011. During the noise measurements, the sky was sunny, the temperature varied between 79 and 89 degrees Fahrenheit and the wind varied between 0 and 10 miles per hour.

All traffic noise measurement durations were measured according to the standards stated in Section N-3320 of Caltrans Technical Noise Supplement (TeNS), which specifies that the measurements be a duration of at least 10 minutes and shall be continued past 10 minutes until the fluctuations in the displayed L_{eq} is less than 0.5 dBA.

6.2 Noise Measurement Results

The results of the short-term peak hour noise level measurements are presented in Table N. The existing noise level measurements ranged from 50.4 to 66.7 dBA Leq, with the highest noise measurement occurring at Site M1.

Table N – Existing (Ambient) Noise Level Measurements

Site No.	Description	Time of Measurement	Primary Noise Source	Noise Level (dBA Leq/Lmax)
M1	Located at La Cañada United Methodist Church at 104 Berkshire Place, in church parking lot and 25 feet from edge of Oak Grove Drive.	2:22 p.m. to 2:37 p.m.	Traffic on Oak Grove Drive and cars in parking lot.	66.7/81.0
M2	Located near a park bench across the street from La Cañada High School at 4463 Oak Grove Drive and approximately 100 feet north of the pool.	2:48 p.m. to 3:03 p.m.	Traffic on Oak Grove Drive, kids talking, and cars in parking lot.	57.9/68.8
M3	Located at the front yard of the home at 2301 Vista Laguna Terrace, Pasadena, and approximately 150 feet north of La Cañada Verdugo Road.	3:54 p.m. to 4:09 p.m.	Dogs barking, traffic on residential streets.	57.6/68.5
M4	Located on the edge of the road in front of the home at 1021 W. Shelly Street, Altadena.	4:22 p.m. to 4:37 p.m.	Kids playing, dogs barking, delivery truck and cars.	58.4/79.7
M5	Located at the Rose Bowl Riders at 4750 Oak Grove Drive, Pasadena, at the back of youth camp and adjacent to equestrian property on a dirt road.	4:53 p.m. to 5:08 p.m.	Equestrians talking and horses.	50.4/57.2
M6	Located at the western end of the southern parking lot for John Muir High School at 1905 Lincoln Avenue, Pasadena.	5:21 p.m. to 5:36 p.m.	Traffic on I-210 and Lincoln Avenue.	59.9/65.3
M7	Located at the middle of the western parking lot for Irwindale Public Library at 5050 Irwindale Ave, Irwindale. Chambers Group Inc., noise measurements taken on June 3, 2	12:08 p.m. to 12:23 p.m.	Cars and people in parking lot.	52.2/63.7

Source: Chambers Group, Inc., noise measurements taken on June 3, 2011.

The noise monitoring data printouts are included in Appendix B. According to Section N-2230 of the TeNS, the CNEL values are generally within plus or minus 2 dBA of the measured peak hour Leq dBA.

6.3 Modeled Existing Noise Levels

The noise contours of the nearby existing roadway have been calculated in order to provide a baseline of the existing traffic noise levels. The distances to the 55, 60, 65, and 70 dBA CNEL noise contours were calculated, plus the noise level at the nearest sensitive receptor to the roadway, which was determined from aerial photos of the study area. Table O shows the existing traffic noise contours and Appendix C provides the FHWA Model printouts.

The calculated existing noise contours in Table O shows that the roadway segments of Vincent Avenue from south of Gladstone Street to south of Arrow Highway; Arrow Highway from east of Vincent Avenue to east of Enid Avenue; Azusa Avenue from north of Arrow Highway to north of Gladstone Street; Figueroa Street south of Eagle Vista Drive; Foothill Boulevard south of I-210 westbound ramps; Osborne Street west of Foothill Boulevard; Glen Oaks Boulevard south of Osborne Street; Glen Oaks Boulevard south of Sunland Boulevard; Foothill Boulevard east of Wheatland Avenue; Wentworth Street

south of Foothill Boulevard; Osborne Street east of I-5 northbound ramps; Laurel Canyon Boulevard south of Osborne Street; and Branford Street east and west of Laurel Canyon Boulevard currently exceed the County's 60 dBA CNEL residential exterior noise standard.

Table O – Existing Roadway Noise Contours

		CNEL at				eet)
Roadway	Segment	Nearest Receptor (dBA) ¹	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Site 1 – Devil's Gate Dan	n and Reservoir					
Berkshire Place	East of I-210 Northbound Ramps	60	RW	RW	60	130
Oak Grove Drive	South of Berkshire Place	58	RW	RW	59	128
Oak Grove Drive	East of Foothill Fwy Overpass	60	RW	RW	79	170
Windsor Avenue	North of I-210 Northbound Ramps	65	RW	70	150	323
Sites 2 and 3 – Manning	Pit and Waste Management Pit					
Vincent Avenue	South of Gladstone Street	65	RW	55	119	257
Vincent Avenue	South of Arrow Highway	67	RW	65	140	301
Arrow Highway	East of Vincent Avenue	69	54	115	249	535
Arrow Highway	East of Lark Ellen Avenue	69	54	117	251	542
Arrow Highway	East of Enid Avenue	69	55	119	256	552
Azusa Avenue	North of Arrow Highway	69	RW	107	230	497
Azusa Avenue	North of Gladstone Street	66	RW	73	157	338
Site 4 – Scholl Canyon L	andfill					
Calcult Common Day 1	North of SR-134 Westbound	<i>5</i> 4	DW	DW	DW	20
Scholl Canyon Road	Ramps	54	RW	RW	RW	38
Figueroa Street	South of Eagle Vista Drive	63	RW	RW	92	198
·	lon Pit, Cal-Mat Pit, Bradley Pit, a					
Foothill Boulevard	South of I-210 Westbound Ramps	62	RW	71	154	332
Osborne Street	West of Foothill Boulevard	65	RW	64	137	295
Glen Oaks Boulevard	South of Osborne Street	69	51	111	239	515
Glen Oaks Boulevard	South of Penrose Street	68	RW	83	178	385
Glen Oaks Boulevard	South of Sunland Boulevard	68	42	91	196	421
Foothill Boulevard	East of Wheatland Avenue	64	RW	55	118	254
Wentworth Street	South of Foothill Boulevard	65	RW	61	131	283
Osborne Street	East of I-5 Northbound Ramps	65	RW	81	174	375
Laurel Canyon Boulevard	South of Osborne Street	65	RW	60	129	277
Branford Street	East of Laurel Canyon Boulevard	64	RW	RW	94	202
Branford Street	West of Laurel Canyon Boulevard	63	RW	RW	97	208
San Fernando Road	South of Branford Street	56	RW	51	109	235

Notes:

Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

¹ Distances to nearest sensitive receptor shown in Table F. The noise contours do not take into account existing noise barriers.

RW = Noise contour is located within right-of-way of roadway.

7.0 IMPACT ANALYSIS

7.1 CEQA Thresholds of Significance

Consistent with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines, a significant impact related to noise would occur if a proposed project is determined to result in:

- Exposure of persons to or generation of noise levels in excess of standards established in the local General Plan or noise ordinance, or applicable standards of other agencies;
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;
- A substantial permanent increase in ambient noise levels in the project vicinity above existing levels without the proposed project; (Refer to Notice of Preparation Initial Study Devil's Gate Reservoir Sediment Removal and Management Project, prepared by Chambers Group, September 2011, effects found not to be significant)
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above noise levels existing without the proposed project; or
- Exposure of persons residing or working in the project area to excessive noise levels from aircraft. (Refer to Notice of Preparation Initial Study Devil's Gate Reservoir Sediment Removal and Management Project, prepared by Chambers Group, September 2011, effects found not to be significant)

7.2 Generation of Noise Levels in Excess of Standards

The proposed project would not expose persons to or generate noise levels in excess of standards established in the General Plan or Noise Ordinance or applicable standards of other agencies. The following section calculates the potential noise emissions associated with the construction and operations of the proposed project and compares the noise levels to the County standards and applicable standards from other agencies.

The on-site construction equipment and off-site truck noise impacts have been analyzed separately below.

On-Site Construction Equipment Noise

Construction of the proposed project is anticipated to occur between summer 2015 and summer 2020. Excavation and associated activities within the reservoir area are expected to take place during the drier months, from April to December, Monday through Saturday (except on holidays), as weather permits. During drier rainfall years work could potentially start earlier in the year and/or continue later into the year. Excavation activities will take place between the hours of 7:00 a.m. and 6:00 p.m. Standard Time and between 7:00 a.m. and 7:00 p.m. Daylight Savings Time, Monday through Friday and between 8:00 a.m. to 5:00 p.m. on Saturday. Removal of sediment and organic materials offsite is expected to take place during these hours.

The on-site construction equipment during removal of sediment activities would require the simultaneous operation of four front end loaders, two D8 dozers, one excavator, one water truck, one sorter/crusher, and two tender trucks (for fuel and maintenance). The sediment maintenance activities would require the simultaneous operation of two front end loaders, one D8 dozer, one excavator, one water truck, one sorter/crusher, and two tender trucks (for fuel and maintenance). Since the removal of sediment activities would require a greater amount of equipment, this on-site construction equipment noise calculations have been based on the sediment removal activities equipment list. There is also anticipated to be up to three dump trucks simultaneously operating on the project site during the removal of sediment and sediment maintenance activities. Noise impacts from on-site construction equipment activities associated with the proposed project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities.

The nearest sensitive receptors to the proposed project are: single-family homes as near as 140 feet from excavation activities on the southeast side of the project site located in the City of Pasadena; single-family homes as near as 180 feet from excavation activities on the east side of the project site in the unincorporated area of Altadena; office buildings that are part of the JPL facility as near as 200 feet from excavation activities on the northwest side of the project site in the City of La Cañada Flintridge; park uses as near as 20 feet from excavation activities on the west side of the project site in the City of Pasadena; La Cañada High School as near as 430 feet from excavation activities on the southwest side of the project site and located in the City of La Cañada Flintridge; and La Cañada United Methodist Church as near as 500 feet from excavation activities in the City of La Cañada Flintridge.

Chapter 5.36.010 of the City of La Cañada Flintridge Municipal Code restricts construction activity that exceeds 65 dBA at any adjacent residential property line from occurring: between the hours of 6:00 p.m. and 7:00 a.m. Monday through Friday during Standard time or between 7:00 p.m. and 7:00 a.m. Monday through Friday during Daylight Savings time; between the hours of 5:00 p.m. and 7:00 a.m. on Saturday; or anytime on Sunday and holidays.

The City of Pasadena provides limitations of construction activities in Chapter 9.36.070 of their Municipal Code, however Chapter 9.36.170 exempts construction and maintenance activities by public agencies, such as the Los Angeles County Flood Control District, from the requirements of Chapter 9 in the City of Pasadena Municipal Code.

The County of Los Angeles provides limitation of construction activities in Chapter 12.08.440 of their Municipal Code, however Chapter 12.08.570 H exempts flood control maintenance and construction operations that are deemed necessary to serve the best interest of the public and to protect the public's health and well being, from the requirements of Chapter 12 of the Los Angeles County Municipal Code.

The City of Pasadena exempts public agencies from the Municipal Code noise requirements and the County of Los Angeles exempts flood control maintenance and construction projects. The City of La Cañada Flintridge exempts construction noise that occurs during the allowed times between Monday through Friday of 7:00 a.m. to 6:00 p.m. Standard Time and 7:00 a.m. to 7:00 p.m. Daylight Savings Time and on Saturday between 7:00 a.m. and 5:00 p.m.. The proposed

project's construction-related activities would only occur during the City of La Cañada Flintridge's allowable times for construction activities. Impacts would be less than significant.

Off-Site Vehicular Noise

The sediment removal activities for the proposed project would generate up to 425 daily round trips from haul trucks and up to 17 daily round trips from workers commuting to the project site. The haul trucks would export the material from the project site to one of the following sites: Manning Pit (Site 2); Waste Management Pit (Site 3); Scholl Canyon Landfill (Site 4); Bradley Landfill (Site 5); Boulevard Pit (Site 6); Cal-Mat Pit (Site 7); Sheldon Pit (Site 8); or Vulcan Materials (Site 9).

Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires. The level of traffic noise depends on three primary factors (1) the volume of traffic, (2) the speed of traffic, and (3) the number of trucks in the flow of traffic. The proposed project would not alter the speed limit on any existing roadway so the proposed project's potential offsite noise impacts have been focused on the noise impacts associated with the change of volume of traffic and change of the number of trucks in the flow of traffic that would occur with development of the proposed project.

The California Department of Health has developed the noise compatibility matrix, shown above in Figure 4 on page 18, that has been adopted by most of the jurisdictions that may be impacted by the proposed project's vehicular noise and details normally acceptable noise levels for different land uses that include 60 dB CNEL for single-family homes and 70 dB CNEL for schools, libraries, churches and parks. Neither the California Department of Health nor any of the local jurisdictions provide any direction for sensitive receptors that already exceed the normally acceptable noise levels for the Without Project condition, however the (Federal Transit Administration, 2006), which assesses noise and vibration impacts from transit projects found that when the ambient noise is between 60 and 64, a noise exposure increase of 2 dB is allowed before a significant impact would occur, when the ambient noise is between 65 and 74 dB Ldn, a noise exposure increase of 1 dB is allowed before a significant impact would occur and when the ambient noise exceeds 74 dB Ldn, any increase in noise exposure would create a significant impact.

The potential offsite traffic noise impacts created by the off-site vehicle trips generated from the proposed project have been analyzed through utilization of the FHWA Model and parameters described above in Section 5.2 and The FHWA model calculation printouts are provided in Appendix E. A comparison of the without project to the with project Route 1A conditions are provided in Table P for Devil's Gate Dam Area (Site 1).

Table P – Project Traffic Noise Contributions to Route 1A Near Devil's Gate Dam

		dBA CNEL at Nearest Receptor ¹			
			Existing Plus	Project	
Roadway	Segment	Existing	Route 1A	Contribution	Threshold
Berkshire Place	East of I-210 Northbound Ramps ²	59	60	1	70 dB
Oak Grove Drive	South of Berkshire Place ³	59	60	1	70 dB
Oak Grove Drive	East of Foothill Fwy Overpass ⁴	60	60	0	60 dB
Windsor Avenue	North of I-210 Northbound Ramps ⁴	66	66	0	> +1 dB

Notes:

Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

Table P shows that the project traffic noise contributions to Route 1A that would access Devil's Gate Dam and Reservoir area, would increase the roadway noise by up to 1 dB. The proposed project would not cause the noise level at any nearby land use to exceed the normally compatible noise standard for the with project condition that did not already exceed the standards for the without project condition. For the roadway segment of Windsor Avenue north of I-210 northbound ramps that already exceed the normally compatible residential noise standard, the noise level increase from the proposed project is within the greater than plus 1 dB noise exposure increase allowed before it is considered significant. Roadway noise impacts would be less than significant for Route 1A.

A comparison of the without project to the with project Route 1B conditions are provided in Table Q for Devil's Gate Dam Area (Site 1).

Table Q – Project Traffic Noise Contributions to Route 1B Near Devil's Gate Dam

		dBA CI			
			Existing Plus	Project	
Roadway	Segment	Existing	Route 1B	Contribution	Threshold
Berkshire Place	East of I-210 Northbound Ramps ²	59	60	1	70 dB
Oak Grove Drive	South of Berkshire Place ³	59	59	0	70 dB
Oak Grove Drive	East of Foothill Fwy Overpass ⁴	60	60	0	60 dB
Windsor Avenue	North of I-210 Northbound Ramps ⁴	66	66	0	> +1 dB

Notes:

Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

Table Q shows that the project traffic noise contributions to Route 1B that would access Devil's Gate Dam and Reservoir area, would increase the roadway noise by up to 1 dB. The proposed project would not cause the noise level at any nearby land use to exceed the normally compatible noise standard for the with project condition that did not already exceed the standards for the without project condition. For the roadway segment of Windsor Avenue north of I-210 northbound ramps that already exceed the normally compatible residential noise standard, the

¹ Distance to nearest receptor shown in Table F, does not take into account existing noise barriers.

² Nearest sensitive receptor is La Cañada High School.

³ Nearest sensitive receptor is La Cañada United Methodist Church.

⁴ Nearest sensitive receptor is residential.

¹ Distance to nearest receptor shown in Table F, does not take into account existing noise barriers.

² Nearest sensitive receptor is La Cañada High School.

³ Nearest sensitive receptor is La Cañada United Methodist Church.

⁴ Nearest sensitive receptor is residential.

noise level increase from the proposed project is within the greater than plus 1 dB noise exposure increase allowed before it is considered significant. Roadway noise impacts would be less than significant for Route 1B.

A comparison of the without project to the with project Route 1C conditions are provided in Table R for Devil's Gate Dam Area (Site 1).

Table R – Project Traffic Noise Contributions to Route 1C Near Devil's Gate Dam

		dBA CNEL at Nearest Receptor ¹			
			Existing Plus	Project	
Roadway	Segment	Existing	Route 1C	Contribution	Threshold
Berkshire Place	East of I-210 Northbound Ramps ²	59	60	1	70 dB
Oak Grove Drive	South of Berkshire Place ³	59	59	0	70 dB
Oak Grove Drive	East of Foothill Fwy Overpass ⁴	60	60	0	60 dB
Windsor Avenue	North of I-210 Northbound Ramps ⁴	66	66	0	> +1 dB

Notes:

Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

Table R shows that the project traffic noise contributions to Route 1C that would access Devil's Gate Dam and Reservoir area, would increase the roadway noise by up to 1 dB. The proposed project would not cause the noise level at any nearby land use to exceed the normally compatible noise standard for the with project condition that did not already exceed the standards for the without project condition. For the roadway segment of Windsor Avenue north of I-210 northbound ramps that already exceed the normally compatible residential noise standard, the noise level increase from the proposed project is within the greater than plus 1 dB noise exposure increase allowed before it is considered significant. Roadway noise impacts would be less than significant for Route 1C.

A comparison of the without project to the with project Route 1D conditions are provided in Table S for Devil's Gate Dam Area (Site 1).

Table S – Project Traffic Noise Contributions to Route 1D Near Devil's Gate Dam

		dBA CNEL at Nearest Receptor ¹			
			Existing Plus	Project	
Roadway	Segment	Existing	Route 1D	Contribution	Threshold
Berkshire Place	East of I-210 Northbound Ramps ²	59	60	1	70 dB
Oak Grove Drive	South of Berkshire Place ³	59	59	0	70 dB
Oak Grove Drive	East of Foothill Fwy Overpass ⁴	60	60	0	60 dB
Windsor Avenue	North of I-210 Northbound Ramps ⁴	66	66	0	> +1 dB

Notes:

Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

¹ Distance to nearest receptor shown in Table F, does not take into account existing noise barriers.

² Nearest sensitive receptor is La Cañada High School.

³ Nearest sensitive receptor is La Cañada United Methodist Church..

⁴ Nearest sensitive receptor is residential.

¹ Distance to nearest receptor shown in Table F, does not take into account existing noise barriers.

² Nearest sensitive receptor is La Cañada High School.

³ Nearest sensitive receptor is La Cañada United Methodist Church.

⁴ Nearest sensitive receptor is residential.

Table S shows that the project traffic noise contributions to Route 1D that would access Devil's Gate Dam and Reservoir area, would increase the roadway noise by up to 1 dB. The proposed project would not cause the noise level at any nearby land use to exceed the normally compatible noise standard for the with project condition that did not already exceed the standards for the without project condition. For the roadway segment of Windsor Avenue north of I-210 northbound ramps that already exceed the normally compatible residential noise standard, the noise level increase from the proposed project is within the greater than plus 1 dB noise exposure increase allowed before it is considered significant. Roadway noise impacts would be less than significant for Route 1D.

A comparison of the without project to the with project Route 1E conditions are provided in Table T for Devil's Gate Dam Area (Site 1).

Table T – Project Traffic Noise Contributions to Route 1E Near Devil's Gate Dam

		dBA C			
			Existing Plus	Project	
Roadway	Segment	Existing	Route 1E	Contribution	Threshold
Berkshire Place	East of I-210 Northbound Ramps ²	59	60	1	70 dB
Oak Grove Drive	South of Berkshire Place ³	59	60	1	70 dB
Oak Grove Drive	East of Foothill Fwy Overpass ⁴	60	60	0	60 dB
Windsor Avenue	North of I-210 Northbound Ramps ⁴	66	66	0	>+1 dB

Notes:

Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

Table T shows that the project traffic noise contributions to Route 1E that would access Devil's Gate Dam and Reservoir area, would increase the roadway noise by up to 1 dB. The proposed project would not cause the noise level at any nearby land use to exceed the normally compatible noise standard for the with project condition that did not already exceed the standards for the without project condition. For the roadway segment of Windsor Avenue north of I-210 northbound ramps that already exceed the normally compatible residential noise standard, the noise level increase from the proposed project is within the greater than plus 1 dB noise exposure increase allowed before it is considered significant. Roadway noise impacts would be less than significant for Route 1E.

A comparison of the without project to the with project Route 1F conditions are provided in Table U for Devil's Gate Dam Area (Site 1).

¹ Distance to nearest receptor shown in Table F, does not take into account existing noise barriers.

² Nearest sensitive receptor is La Cañada High School.

³ Nearest sensitive receptor is La Cañada United Methodist Church.

⁴ Nearest sensitive receptor is residential.

Table U – Project Traffic Noise Contributions to Route 1F Near Devil's Gate Dam

		dBA CNEL at Nearest Receptor ¹			
			Existing Plus	Project	
Roadway	Segment	Existing	Route 1F	Contribution	Threshold
Berkshire Place	East of I-210 Northbound Ramps ²	59	60	1	70 dB
Oak Grove Drive	South of Berkshire Place ³	59	59	0	70 dB
Oak Grove Drive	East of Foothill Fwy Overpass ⁴	60	60	0	60 dB
Windsor Avenue	North of I-210 Northbound Ramps ⁴	66	66	0	>+1 dB

Notes:

Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

Table U shows that the project traffic noise contributions to Route 1F that would access Devil's Gate Dam and Reservoir area, would increase the roadway noise by up to 1 dB. The proposed project would not cause the noise level at any nearby land use to exceed the normally compatible noise standard for the with project condition that did not already exceed the standards for the without project condition. For the roadway segment of Windsor Avenue north of I-210 northbound ramps that already exceed the normally compatible residential noise standard, the noise level increase from the proposed project is within the greater than plus 1 dB noise exposure increase allowed before it is considered significant. Roadway noise impacts would be less than significant for Route 1F.

A comparison of the without project to the with project Route 1G conditions are provided in Table V for Devil's Gate Dam Area (Site 1).

Table V – Project Traffic Noise Contributions to Route 1G Near Devil's Gate Dam

		dBA CNEL at Nearest Receptor ¹			
			Existing Plus	•	
Roadway	Segment	Existing	Route 1G	Contribution	Threshold
Berkshire Place	East of I-210 Northbound Ramps ²	59	60	1	70 dB
Oak Grove Drive	South of Berkshire Place ³	59	59	0	70 dB
Oak Grove Drive	East of Foothill Fwy Overpass ⁴	60	60	0	60 dB
Windsor Avenue	North of I-210 Northbound Ramps ⁴	66	66	0	> +1 dB

Notes

Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

Table V shows that the project traffic noise contributions to Route 1G that would access Devil's Gate Dam and Reservoir area, would increase the roadway noise by up to 1 dB. The proposed project would not cause the noise level at any nearby land use to exceed the normally compatible noise standard for the with project condition that did not already exceed the standards for the without project condition. For the roadway segment of Windsor Avenue north of I-210 northbound ramps that already exceed the normally compatible residential noise standard, the

¹ Distance to nearest receptor shown in Table F, does not take into account existing noise barriers.

² Nearest sensitive receptor is La Cañada High School.

³ Nearest sensitive receptor is La Cañada United Methodist Church.

⁴ Nearest sensitive receptor is residential.

¹ Distance to nearest receptor shown in Table F, does not take into account existing noise barriers.

² Nearest sensitive receptor is La Cañada High School.

³ Nearest sensitive receptor is La Cañada United Methodist Church.

⁴ Nearest sensitive receptor is residential.

noise level increase from the proposed project is within the greater than plus 1 dB noise exposure increase allowed before it is considered significant. Roadway noise impacts would be less than significant for Route 1G.

A comparison of the without project to the with project Route 1H conditions are provided in Table W for Devil's Gate Dam Area (Site 1).

Table W – Project Traffic Noise Contributions to Route 1H Near Devil's Gate Dam

		dBA CNEL at Nearest Receptor ¹			
			Existing Plus	Project	
Roadway	Segment	Existing	Route 1H	Contribution	Threshold
Berkshire Place	East of I-210 Northbound Ramps ²	59	60	1	70 dB
Oak Grove Drive	South of Berkshire Place ³	59	59	0	70 dB
Oak Grove Drive	East of Foothill Fwy Overpass ⁴	60	60	0	60 dB
Windsor Avenue	North of I-210 Northbound Ramps ⁴	66	66	0	> +1 dB

Notes:

Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

Table W shows that the project traffic noise contributions to Route 1H that would access Devil's Gate Dam and Reservoir area, would increase the roadway noise by up to 1 dB. The proposed project would not cause the noise level at any nearby land use to exceed the normally compatible noise standard for the with project condition that did not already exceed the standards for the without project condition. For the roadway segment of Windsor Avenue north of I-210 northbound ramps that already exceed the normally compatible residential noise standard, the noise level increase from the proposed project is within the greater than plus 1 dB noise exposure increase allowed before it is considered significant. Roadway noise impacts would be less than significant for Route 1H.

A comparison of the without project to the with project Route 2A conditions are provided in Table X for travel to Manning Pit (Site 2).

Table X – Project Traffic Noise Contributions to Route 2A to Manning Pit

		dBA CNEL at Nearest Receptor ¹			
			Existing Plus	Project	
Roadway	Segment	Existing	Route 2A	Contribution	Threshold
Vincent Avenue	South of Gladstone Street ³	65	66	1	>+1 dB
Vincent Avenue	South of Arrow Highway ³	67	67	0	>+1 dB
Arrow Highway	East of Vincent Avenue ³	69	70	1	>+1 dB
Arrow Highway	East of Lark Ellen Avenue ³	69	70	1	>+1 dB
Arrow Highway	East of Enid Avenue ²	70	70	0	70 dB
Azusa Avenue	North of Arrow Highway ³	69	69	0	> +1 dB
Azusa Avenue	North of Gladstone Street ³	66	66	0	> +1 dB

Notes

Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

¹ Distance to nearest receptor shown in Table F, does not take into account existing noise barriers.

² Nearest sensitive receptor is La Cañada High School.

³ Nearest sensitive receptor is La Cañada United Methodist Church.

⁴ Nearest sensitive receptor is residential.

¹ Distance to nearest residential or school use shown in Table F, does not take into account existing noise barriers.

² Nearest sensitive receptor is Gladstone High School.

³ Nearest sensitive receptor is residential.

Table X shows that the project traffic noise contributions to Route 2A that would travel to Manning Pit, would increase the roadway noise by up to 1 dB. The proposed project would not cause the noise level at any nearby land use to exceed the normally compatible noise standard for the with project condition that did not already exceed the standards for the without project condition. The roadway segments of: Vincent Avenue south of Gladstone Street; Vincent Avenue south of Arrow Highway; Arrow Highway east of Vincent Avenue; Arrow Highway east of Lark Ellen Avenue; Azusa Avenue north of Arrow Highway; and Azusa Avenue north of Gladstone Street, all currently exceed the normally compatible residential noise standard with noise levels that range between 65 and 69 dB CNEL, the noise level increase from the proposed project is within the greater than plus 1 dB noise exposure increase allowed before it is considered significant for these roadway segments. Roadway noise impacts would be less than significant for Route 2A.

A comparison of the without project to the with project Route 2B conditions are provided in Table Y for travel to Manning Pit (Site 2).

Table Y – Project Traffic Noise Contributions to Route 2B to Manning Pit

		dBA C			
			Existing Plus	Project	
Roadway	Segment	Existing	Route 2B	Contribution	Threshold
Vincent Avenue	South of Gladstone Street ³	65	65	0	>+1 dB
Vincent Avenue	South of Arrow Highway ³	67	67	0	> +1 dB
Arrow Highway	East of Vincent Avenue ³	69	70	1	> +1 dB
Arrow Highway	East of Lark Ellen Avenue ³	69	70	1	> +1 dB
Arrow Highway	East of Enid Avenue ²	70	70	0	70 dB
Azusa Avenue	North of Arrow Highway ³	69	69	0	>+1 dB
Azusa Avenue	North of Gladstone Street ³	66	66	0	>+1 dB

Notes

Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

Table Y shows that the project traffic noise contributions to Route 2B that would travel to Manning Pit, would increase the roadway noise by up to 1 dB. The proposed project would not cause the noise level at any nearby land use to exceed the normally compatible noise standard for the with project condition that did not already exceed the standards for the without project condition. The roadway segments of: Vincent Avenue south of Gladstone Street; Vincent Avenue south of Arrow Highway; Arrow Highway east of Vincent Avenue; Arrow Highway east of Lark Ellen Avenue; Azusa Avenue north of Arrow Highway; and Azusa Avenue north of Gladstone Street, all currently exceed the normally compatible residential noise standard with noise levels that range between 65 and 69 dB CNEL, the noise level increase from the proposed project is within the greater than plus 1 dB noise exposure increase allowed before it is considered significant for these roadway segments. Roadway noise impacts would be less than significant for Route 2B.

Route 3 would travel from I-210 to the Waste Management Pit via Irwindale Avenue and Gladstone Street would not pass by any noise sensitive land use. Therefore no quantitative

Distance to nearest residential or school use shown in Table F, does not take into account existing noise barriers.

² Nearest sensitive receptor is Gladstone High School.

³ Nearest sensitive receptor is residential.

analysis has been provided of Route 3 and roadway noise impacts would be less than significant for Route 3.

A comparison of the without project to the with project Route 4A conditions are provided in Table Z for travel to Scholl Canyon Landfill (Site 4).

Table Z - Project Traffic Noise Contributions to Route 4A to Scholl Canyon Landfill

		dBA C			
			Existing Plus	v	
Roadway	Segment	Existing	Route 4A	Contribution	Threshold
Scholl Canyon Road	North of SR-134 Westbound Ramps ²	54	60	6	60 dB
Figueroa Street	South of Eagle Vista Drive ³	63	64	1	70 dB

Notes

Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

Table Z shows that the project traffic noise contributions to Route 4A that would travel to Scholl Canyon Landfill, would increase the roadway noise by up to 6 dB. The proposed project would not cause the noise level at any nearby land use to exceed the normally compatible noise standard for the with project condition that did not already exceed the standards for the without project condition. Roadway noise impacts would be less than significant for Route 4A.

A comparison of the without project to the with project Route 4B conditions are provided in Table AA for travel to Scholl Canyon Landfill (Site 4).

Table AA – Project Traffic Noise Contributions to Route 4B to Scholl Canyon Landfill

oject	
ribution T	Threshold
6	60 dB
1	70 dB
	9

Notes:

Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

Table AA shows that the project traffic noise contributions to Route 4B that would travel to Scholl Canyon Landfill, would increase the roadway noise by up to 6 dB. The proposed project would not cause the noise level at any nearby land use to exceed the normally compatible noise standard for the with project condition that did not already exceed the standards for the without project condition. Roadway noise impacts would be less than significant for Route 4B.

A comparison of the without project to the with project Routes 5A, 6A, and 7A conditions are provided in Table BB for travel to Sheldon Pit (Site 5), Cal-Mat Pit (Site 6), and Bradley

Distance to nearest receptor shown in Table F, does not take into account existing noise barriers.

² Nearest sensitive receptor is residential.

³ Nearest sensitive receptor is Eagle Rock Recreation Center.

¹ Distance to nearest receptor shown in Table F, does not take into account existing noise barriers.

² Nearest sensitive receptor is residential.

³ Nearest sensitive receptor Eagle Rock Recreation Center.

Landfill (Site 7). Routes 5A, 6A, and 7A run from the Foothill Boulevard ramps on I-210 via Osborne Street and Glen Oaks Boulevard to the sites.

Table BB – Project Traffic Noise Contributions to Routes 5A, 6A, and 7A

		dBA C	NEL at Nearest	Receptor1	
			Existing Plus	Project	
Roadway	Segment	Existing	Route 5A	Contribution	Threshold
Foothill Boulevard	South of I-210 Westbound Ramps ²	62	63	1	> +2 dB
Osborne Street	West of Foothill Boulevard ³	65	66	1	70 dB
Glen Oaks Boulevard	South of Osborne Street ²	69	69	0	> +1 dB

Notes:

Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

Table BB shows that the project traffic noise contributions to Routes 5A, 6A, and 7A that would travel to Sheldon Pit, Cal-Mat Pit, and Bradley Landfill, would increase the roadway noise by up to 1 dB. The proposed project would not cause the noise level at any nearby land use to exceed the normally compatible noise standard for the with project condition that did not already exceed the standards for the without project condition. The roadway segment of Foothill Boulevard south of I-210 westbound ramps currently exceeds the normally compatible residential noise standard with an existing noise level of 62 dBA CNEL, which allows for a project increase of greater than 2 dB before it is considered significant. The roadway segment of Glen Oaks Boulevard south of Osborne Street currently exceed the normally compatible residential noise standard with an existing noise level of 69 dBA CNEL, which allows for a project increase of greater than 1 dB before it is considered significant. Roadway noise impacts would be less than significant for Routes 5A, 6A, and 7A.

A comparison of the without project to the with project Route 5B, 6B, and 7B conditions are provided in Table CC for travel to Sheldon Pit (Site 5), Cal-Mat Pit (Site 6), and Bradley Landfill (Site 7). Routes 5B, 6B, and 7B run from the Glen Oaks Boulevard ramps on I-5 to the sites.

Table CC – Project Traffic Noise Contributions to Routes 5B, 6B, and 7B

		dBA C	dBA CNEL at Nearest Receptor ¹		
		·	Existing Plus	Project	
Roadway	Segment	Existing	Route 5B	Contribution	Threshold
Glen Oaks Boulevard	South of Penrose Street ²	68	68	0	>+1 dB
Glen Oaks Boulevard	South of Sunland Boulevard ²	68	68	0	>+1 dB

Notes

Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

Table CC shows that the project traffic noise contributions to Routes 5B, 6B, and 7B that would travel to Sheldon Pit, Cal-Mat Pit, and Bradley Landfill, would not create a quantitative increase in roadway noise at the nearby sensitive receptors. The proposed project would not cause the

¹ Distance to nearest receptor shown in Table F, does not take into account existing noise barriers.

² Nearest sensitive receptor is residential.

³ Nearest sensitive receptor is Pacoima Youth Athletic Foundation (park use).

¹ Distance to nearest receptor shown in Table F, does not take into account existing noise barriers.

² Nearest sensitive receptor is residential.

noise level at any nearby land use to exceed the normally compatible noise standard for the with project condition that did not already exceed the standards for the without project condition. Both analyzed roadway segments currently exceeds the normally compatible residential noise standard with an existing noise level of 68 dBA CNEL, which allows for a project increase of greater than 1 dB before it is considered significant. Roadway noise impacts would be less than significant for Routes 5B, 6B, and 7B.

A comparison of the without project to the with project Routes 5C, 6C, and 7C conditions are provided in Table DD for travel to Sheldon Pit (Site 5), Cal-Mat Pit (Site 6), and Bradley Landfill (Site 7). Routes 5C, 6C, and 7C run from the Wheatland Avenue ramps on I-210 via Foothill Boulevard and Wentworth Street to the sites.

Table DD – Project Traffic Noise Contributions to Routes 5C, 6C, and 7C

		dBA CNEL at Nearest Receptor ¹		Receptor1	
			Existing Plus	Project	
Roadway	Segment	Existing	Route 5C	Contribution	Threshold
Foothill Boulevard	East of Wheatland Avenue ²	64	64	0	>+1 dB
Wentworth Street	South of Foothill Boulevard ²	65	66	1	>+1 dB

Notes:

Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

Table DD shows that the project traffic noise contributions to Routes 5C, 6C, and 7C that would travel to Sheldon Pit, Cal-Mat Pit, and Bradley Landfill, would increase the roadway noise by up to 1 dB. The proposed project would not cause the noise level at any nearby land use to exceed the normally compatible noise standard for the with project condition that did not already exceed the standards for the without project condition. The roadway segment of Foothill Boulevard east of Wheatland Avenue currently exceeds the normally compatible residential noise standard with an existing noise level of 64 dBA CNEL, which allows for a project increase of greater than 2 dB before it is considered significant. The roadway segment of Wentworth Street south of Foothill Boulevard currently exceed the normally compatible residential noise standard with an existing noise level of 65 dBA CNEL, which allows for a project increase of greater than 1 dB before it is considered significant. Roadway noise impacts would be less than significant for Routes 5C, 6C, and 7C.

A comparison of the without project to the with project Route 8A conditions are provided in Table EE for travel to Boulevard Pit (Site 8).

Table EE – Project Traffic Noise Contributions to Route 8A to Boulevard Pit

-		dBA CNEL at Nearest Receptor ¹			
			Existing Plus	Project	
Roadway	Segment	Existing	Route 8A	Contribution	Threshold
Branford Street	East of Laurel Canyon Boulevard ³	64	65	1	>+1 dB
Branford Street	West of Laurel Canyon Boulevard ³	63	63	0	> +2 dB

Notes:

Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

¹ Distance to nearest receptor shown in Table F, does not take into account existing noise barriers.

² Nearest sensitive receptor is residential.

¹ Distance to nearest receptor shown in Table F, does not take into account existing noise barriers.

² Nearest sensitive receptor is residential.

Table EE shows that the project traffic noise contributions to Route 8A that would travel to Boulevard Pit, would increase the roadway noise by up to 1 dB. The proposed project would not cause the noise level at any nearby land use to exceed the normally compatible noise standard for the with project condition that did not already exceed the standards for the without project condition. Both analyzed roadway segments currently exceed the normally compatible residential noise standard with existing noise levels that range between 63 and 64 dBA CNEL, which allows for a project increase of greater than 2 dB before it is considered significant. Roadway noise impacts would be less than significant for Route 8A.

A comparison of the without project to the with project Route 8B conditions are provided in Table FF for travel to Boulevard Pit (Site 8).

Table FF – Project Traffic Noise Contributions to Route 8B to Boulevard Pit

		dBA C	NEL at Neares	t Receptor ¹	
			Existing Plus	Project	-
Roadway	Segment	Existing	Route 8B	Contribution	Threshold
Osborne Street	East of I-5 Northbound Ramps ²	65	65	0	> +1 dB
Laurel Canyon Boulevard	South of Osborne Street ²	65	66	1	> +1 dB
Branford Street	East of Laurel Canyon Boulevard ²	64	65	1	> +2 dB

Notes:

Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

Table FF shows that the project traffic noise contributions to Route 8B that would travel to Boulevard Pit, would increase the roadway noise by up to 1 dB. The proposed project would not cause the noise level at any nearby land use to exceed the normally compatible noise standard for the with project condition that did not already exceed the standards for the without project condition. The roadway segments of Osborne Street east of I-5 northbound ramps and Laurel Canyon Boulevard south of Osborne Street currently exceed the normally compatible residential noise standard with an existing noise level of 65 dBA CNEL, which allows for a project increase of greater than 1 dB before it is considered significant. The roadway segment of Branford Street east of Laurel Canyon Boulevard currently exceed the normally compatible residential noise standard with an existing noise level of 64 dBA CNEL, which allows for a project increase of greater than 2 dB before it is considered significant. Roadway noise impacts would be less than significant for Route 8B.

A comparison of the without project to the with project Route 8C conditions are provided in Table GG for travel to Boulevard Pit (Site 8).

¹ Distance to nearest receptor shown in Table F, does not take into account existing noise barriers.

² Nearest sensitive receptor is residential.

Table GG – Project Traffic Noise Contributions to Route 8C to Boulevard Pit

		dBA C	NEL at Neares	t Receptor ¹	_
			Existing Plus	Project	_
Roadway	Segment	Existing	Route 8C	Contribution	Threshold
Foothill Boulevard	East of Wheatland Avenue ²	64	64	0	> +1 dB
Wentworth Street	South of Foothill Boulevard ²	65	66	1	> +1 dB
San Fernando Road	South of Branford Street ³	57	57	0	70 dB

Notes:

Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

Table GG shows that the project traffic noise contributions to Route 8C that would travel to Boulevard Pit, would increase the roadway noise by up to 1 dB. The proposed project would not cause the noise level at any nearby land use to exceed the normally compatible noise standard for the with project condition that did not already exceed the standards for the without project condition. The roadway segment of Foothill Boulevard east of Wheatland Avenue currently exceeds the normally compatible residential noise standard with an existing noise level of 64 dBA CNEL, which allows for a project increase of greater than 2 dB before it is considered significant. The roadway segment of Wentworth Street south of Foothill Boulevard currently exceed the normally compatible residential noise standard with an existing noise level of 65 dBA CNEL, which allows for a project increase of greater than 1 dB before it is considered significant. Roadway noise impacts would be less than significant for Route 8C.

Route 9 would travel from I-210 to Vulcan Materials Pit via Irwindale Avenue would not pass by any noise sensitive land use. Therefore no quantitative analysis has been provided of Route 9 and roadway noise impacts would be less than significant for Route 9.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Mitigation Measure 1:

The project applicant shall limit construct activities for Monday through Friday to between 7:00 a.m. and 6:00 p.m. Standard Time and to between 7:00 a.m. and 7:00 p.m. Daylight Savings Time and on Saturday between 8:00 a.m. and 5:00 p.m. No construction activities shall occur on federal holidays.

Level of Significance After Mitigation

Less than significant impact.

7.3 Generation of Excessive Groundborne Vibration

The proposed project would not expose persons to or generation of excessive groundborne vibration or groundborne noise levels. The preferred alternative for the proposed project would remove approximately 2.9 million cubic yards of current excess sediment in the reservoir plus any additional sediment that accumulates prior to removal commencement. All alternatives

¹ Distance to nearest receptor shown in Table F, does not take into account existing noise barriers.

² Nearest sensitive receptor is residential.

³ Nearest sensitive receptor is Pacifica Hospital of the Valley.

would require the operation of similar on-site diesel equipment and except for Alternative 4, the rest of the alternatives would require the use of haul trucks to remove sediment. The primary difference between alternatives with regard to vibration impacts is the duration of activities, however since the standards do not differentiate between vibration impacts that occur over one day or several weeks, this analysis has analyzed all alternatives together.

Chapter 12.08.560 of the County's Municipal Code restricts the operation of any device which is above the vibration perception threshold at any private property boundary or at 150 feet from the source on public property. Chapter 12.08.350 defines the "vibration perception threshold" as a motion velocity of 0.01 inch per second over the range of 1 to 100 Hertz.

The on-site construction equipment and off-site truck vibration impacts have been analyzed separately below.

On-Site Construction Equipment Vibration Impacts

The on-site construction equipment during removal of sediment and sediment maintenance activities would require the simultaneous operation of two front end loaders, one dozer, one excavator, one water truck, and one sorter/crusher. There is also anticipated to be up to three dump trucks simultaneously operating on the project site during the removal of sediment and sediment maintenance activities.

Vibration impacts primarily occur in structures, where people are sitting or laying down and are more sensitive to vibration in these positions. The nearest vibration sensitive receptors to the proposed project are: single-family homes as near as 140 feet from excavation activities on the southeast side of the project site located in the City of Pasadena; single-family homes as near as 180 feet from excavation activities on the east side of the project site in the unincorporated area of Altadena; office buildings that are part of the JPL facility as near as 200 feet from excavation activities on the northwest side of the project site in the City of La Cañada Flintridge; La Cañada High School as near as 430 feet from excavation activities on the southwest side of the project site and located in the City of La Cañada Flintridge; and La Cañada United Methodist Church as near as 500 feet from excavation activities in the City of La Cañada Flintridge.

The primary source of vibration during construction would be from the on-site operation of a bull dozer. On-site equipment vibration impacts to the nearby sensitive receptors have been calculated through use of typical vibration propagation rates and the vibration levels for a bull dozer detailed above in Section 5.3 of this report including Table M – Vibration Source Levels for Construction Equipment and the results are shown below in Table HH.

Table HH – On-Site Construction Equipment Vibration Impacts at Nearby Sensitive Receptors

Receptor Description	Receptor Jurisdiction	Distance to Receptor (feet)	Maximum Vibration Level Peak Particle Velocity inch/second
Single-Family Home	Pasadena	140	0.013
Single-Family Home	Los Angeles County	180	0.010
JPL Office	La Cañada Flintridge	200	0.009
La Cañada High School	La Cañada Flintridge	430	0.004
La Cañada Methodist Church	La Cañada Flintridge	500	0.003
	County of Los Angeles	0.01	

Notes: Based on vibration levels for a large bulldozer provided above in Table M and vibration propagation rates detailed in Caltrans, 2004.

Table HH above shows that vibration impacts from on-site construction equipment would range from 0.003 to 0.013 inch per second peak particle velocity. Since the Cities of Pasadena and La Cañada Flintridge do not provide vibration standards, the County of Los Angeles vibration standards have used to analyze the vibration impacts to all nearby sensitive receptors. Table HH shows that only the nearby single-family homes in the City of Pasadena would experience vibration levels that would exceed the 0.01 inch per second vibration standard. This would be considered a significant impact.

Mitigation Measure 2 is provided that would restrict the use of large bulldozers and other large equipment (greater than 200 horsepower) from operating within 180 feet of any occupied off-site structure. Equipment that is not performing any earth moving activities and is solely operating for entering or leaving the site via the access road on the southeast side of the reservoir are exempted from this requirement. Through implementation of Mitigation Measure 2, the on-site construction equipment vibration impacts to nearby sensitive receptors would be reduced to less than significant.

Off-Site Truck Operations Vibration Impacts

The sediment removal activities for the proposed project would generate up to 425 daily round trips from haul trucks. The haul trucks would export the material from the project site to one of the following sites: Manning Pit (Site 2); Waste Management Pit (Site 3); Scholl Canyon Landfill (Site 4); Bradley Landfill (Site 5); Boulevard Pit (Site 6); Cal-Mat Pit (Site 7); Sheldon Pit (Site 8); or Vulcan Materials (Site 9).

Although, there is a lot of data available on the vibration levels created by construction equipment and trucks operating on dirt roads at construction sites as detailed above in Table M, there is relatively little quantitative data on vibration impacts from trucks operating on paved roads, which produce much lower vibration levels due to their smoother surfaces and compacted road bases than dirt roads. However, the City of Concord, California did a comprehensive survey of the vibration impacts from the City's major roadways and freeways and found that the roadways create vibration levels up to 64 VdB at 20 feet or 0.003 inch per second peak particle velocity. According to Table F above, the nearest sensitive receptors to the roadways would be single-family homes as close as 50 feet to the roadways travelled by the project trucks. Based on

typical vibration propagation rates, the vibration level at the nearest homes would be 0.001 inch per second peak particle velocity, which is within the County of Los Angeles 0.01 inch per second vibration standard. Impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Mitigation Measure 2:

The project applicant shall restrict the operation of any off-road construction equipment that is powered by a greater than 200 horse power engine from operating within 180 feet of any occupied off-site structure. Equipment that is not performing any earth moving activities and is solely operating for entering or leaving the site via the access road on the southeast side of the reservoir are exempted from this requirement.

Level of Significance After Mitigation

Less than significant impact.

7.4 Temporary Noise Level Increase

The proposed project would not create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above noise levels existing without the proposed project. For this analysis, both the sediment removal activities and operational maintenance activities have been considered as temporary activities, since they would only occur for limited durations of time. The preferred alternative for the proposed project would remove approximately 2.9 million cubic yards of current excess sediment in the reservoir plus any additional sediment received prior to removal commencement. The construction activities associated with the removal of the sediment may create temporary on-site noise impacts from the operation of construction equipment as well off-site noise impacts from the use of haul trucks to export material offsite.

On-Site Construction Equipment Noise

In order to determine if the proposed on-site construction activities would create a significant substantial temporary noise increase, the OSHA agency limits for noise exposure have been utilized. The use of a significance threshold using an OSHA standard is considered conservative. The OSHA standard limits noise exposure of workers to 90 dB or less over 8 continuous hours and this standard has been utilized to analyze the construction noise impacts to the sensitive receptors located at the nearby off-site residences.

Construction noise impacts to the nearby sensitive receptors have been calculated through use of the RCNM and the parameters and assumptions detailed in Section 5.1 of this report including Table E – Construction Equipment Noise Emissions and Usage Factors. The results are shown below in Table II and the RCNM printouts are provided in Appendix D.

Table II – On-Site Construction Equipment Noise Levels at Nearby Sensitive Receptors

		Distance to	Construction	n Noise Levels ¹
Receptor Description	Receptor Jurisdiction	Receptor (feet)	dBA Leq	$dBA L_{max}$
Single-Family Home	Pasadena	140	71	73
Single-Family Home	Los Angeles County	180	70	71
JPL Office	La Cañada Flintridge	200	69	70
Watershed Park	Pasadena	20	86	90
La Cañada High School	La Cañada Flintridge	430	64	63
La Cañada Methodist Church	La Cañada Flintridge	500	63	62

Notes:

Table II above shows that construction noise impacts would range from 62 dBA Leq to 86 dBA Leq at the nearby receptors, with the highest noise levels occurring at the portion of Watershed Park that is adjacent to the west side of the reservoir. Table II shows that the noise levels from on-site of construction activities would be within the 90 dB threshold detailed above. Therefore, a less than significant temporary construction noise impact would occur from development of the proposed project.

Off-Site Vehicular Noise

The sediment removal activities for the proposed project would generate up to 425 daily round trips from haul trucks and up to 17 daily round trips from workers commuting to the project site. The haul trucks would export the material from the project site to one of the following sites: Manning Pit (Site 2); Waste Management Pit (Site 3); Scholl Canyon Landfill (Site 4); Sheldon Pit (Site 5); Cal-Mat Pit (Site 6); Bradley Landfill (Site 7); Boulevard Pit (Site 8); or Vulcan Materials (Site 9). The analysis above in Section 7.2 found that the off-site vehicular trips would not create an exceedance of the normally acceptable noise standards for nearby sensitive land uses for locations that do not already exceed the standards for the without project conditions. The analysis above in Section 7.2 also found that for the locations that currently exceed the normally acceptable noise standard, the project noise contribution to these roadway segments would be within the Federal Transit Administration's allowable noise exposure increase levels. Therefore, the temporary noise level increase created from off-site vehicular noise impacts would result in a less than significant impact.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

¹ Lmax is based on the maximum noise from the loudest piece of equipment and the Leq is the average noise from all equipment. Since there are 14 pieces of equipment being modeled the average noise level may exceed the maximum noise level for one piece of equipment. Source: RCNM, Federal Highway Administration, 2006

8.0 REFERENCES

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California Department of Transportation, *Transportation- and Construction-Induced Vibration Guidance Manual*, June, 2004

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City of Pasadena, City of Pasadena Revised Noise Element of the General Plan, December 2002.

City of Pasadena, *Pasadena*, *California Code of Ordinances Chapter 9.36 – Noise Restrictions*, 2008.

County of Los Angeles, Los Angeles County Draft Preliminary General Plan 2007.

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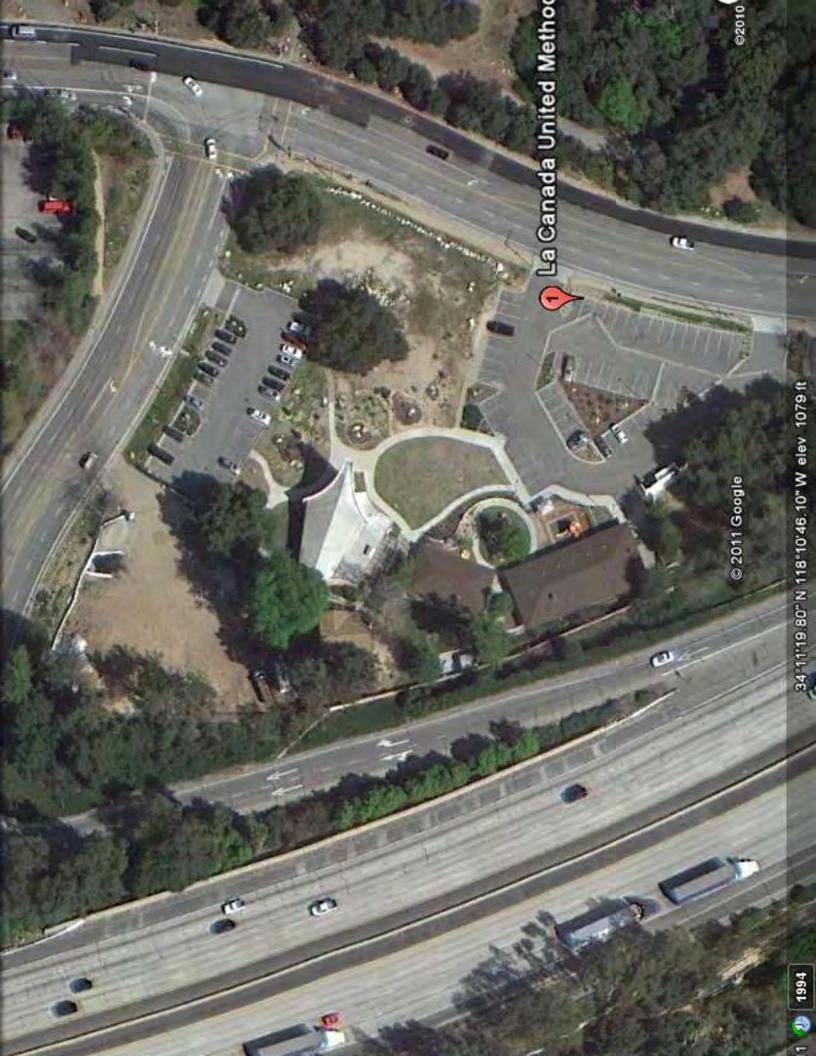
Hall & Foreman, Inc., Devil's Gate Reservoir Sediment Removal and Management Project Traffic Impact Analysis, September, 2013.

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

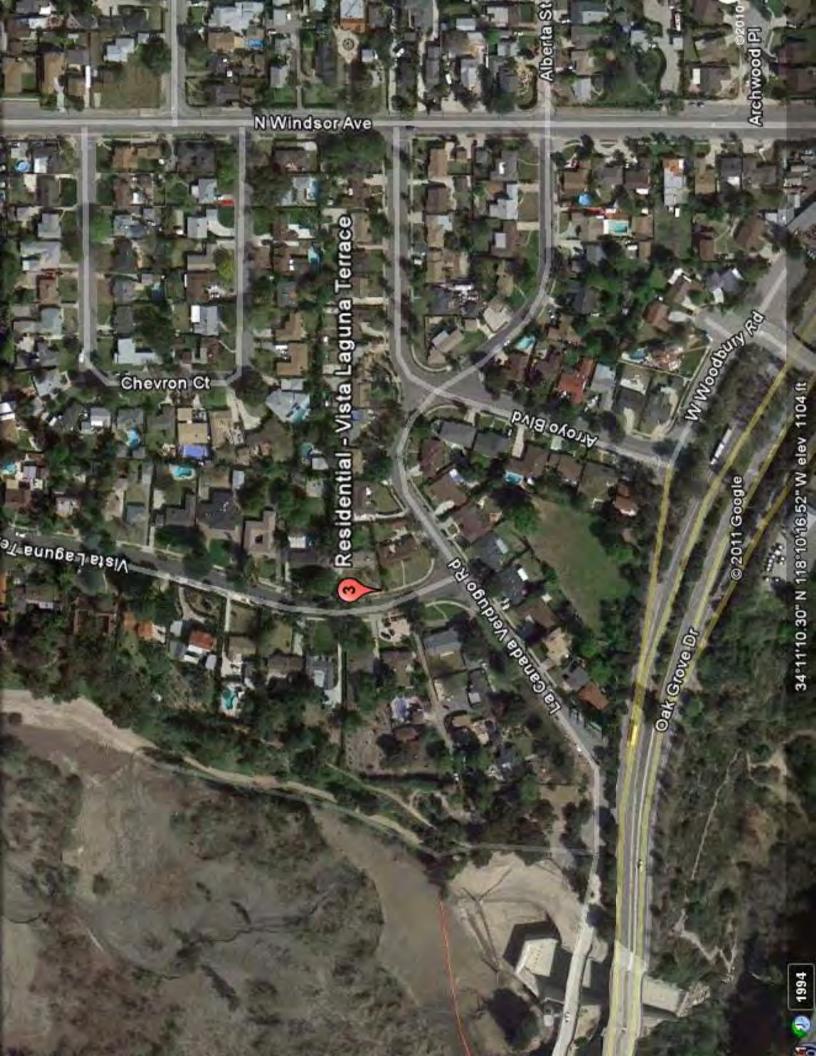
U.S. Department of Transportation, FHWA Roadway Construction Noise Model User's Guide, January, 2006.

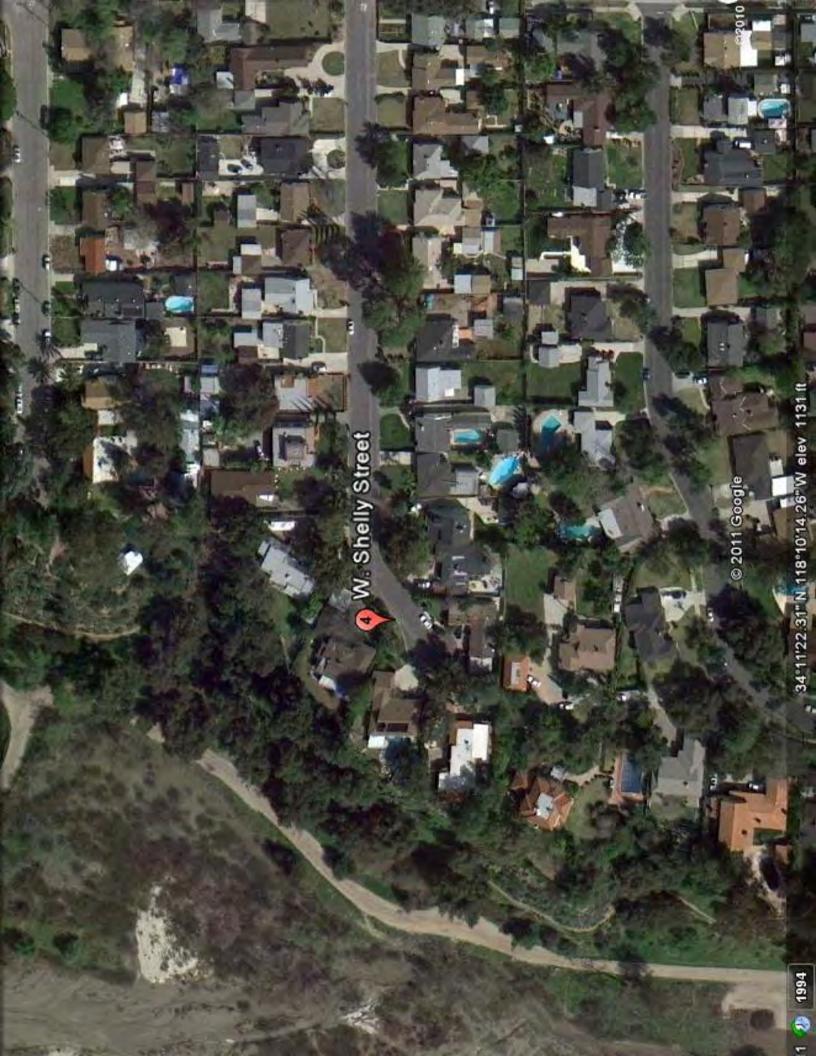
APPENDIX A

Aerial Photos of Noise Measurement Locations









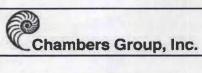




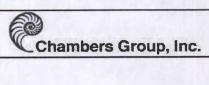


APPENDIX B

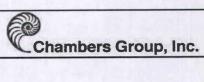
Noise Monitoring Data Printouts



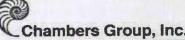
Project Name: Project #:	Devil's Gate
	La Cañada United Methodist Technician: Chris Pylant Date: 6/3/11
Address: Site Description:	104 Berkshire A. La Cañada-Flintridge, CA 91011 In church parking lot, 25' from edge of Oak Frove Dr.
Weather: Primary Source:	settings: SLOW FAST Terrain: Sloped to E & W., church sike SUNNY Traffic Noise from 210 Frequer Traffic Noise from 210 Frequer
	Traffic noise from Oak Grove Dr., Car doors opening & closing in church parking lot
Start:	2:22 PM End: 2:37 PM Leq: 66.7 Lmax: 81.0 Other:
This becau	receptor is also representative of Hillside School use of their proximity.



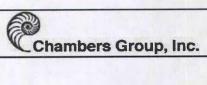
Dro		11's Gate	74-71-1-1-1-1				
	ject #:	0.00	^		-	0.	
ceive	r Name: <u>La</u>	Cañada H	.5.	Techi	Date: 6311	Pylant	
	1. 11.1	2 0014 000	00 1	0-2-0-			
	Address: 444	3 Oak Gro	we ur. L	a Canada	II CA 9	1011	lace
Desi	cription: Tall	k Pench zor	035 31186	TONISO	1001, 100	2 10 01	Part
emp	perature:	510			ttings:		
	Wind: ligh	H (3-5mp)	7)	T e	errain: Willy	project si	e is appro
٧	Veather:				40-5	o' lower.	
			-1/ Gaz 1- D	- MA	1-11/20	ondia la	+ 00,00
nary	Source:	ffic on o	ak drove L	r., 1105	Talking,	barring 10	T hoise
ary:	Sources: T(2)	ffic noise f	com 210	frequise	1		
	110	nie nera	CNI -IC	11000	1		
							777
				, -			
	Start: 2:48	5FM End: 3:03	PM Leg: 57.9	Lmax: 68	8_Other:		
	Start:	End:	Leq:	Lmax:	Other:		
	Start:		Leq:				
	Start:		Leq:				
	Start:	End:					
itio		End:					
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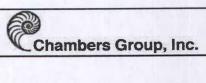
Project Name: Devil's Gate	
Project #:	
Receiver Name: Residential - Vista Laguna Terr.	Technician: Chris Pylant Date: 6/3/11
	1 0
Address: 2301 Vista Laguna Terrace Pas	sadena, CA 41001
Site Description: 150' N of intersection w/	a Cañada Verdua Rd.
@ outside edge of sidewalk	
0	The state of the s
Temperature:	Settings: SLOW FAST
wind: light (3-5mph)	Terrain: govthy sloping
	Terrain: 40 m Stopping
Weather: SUNNY	project site is approx. (00-70' low
C. M. D. D. D. T	
Primary Source: Traffic On 210 Freeway	
A Lordan Lordan	stants letter l'ans
Secondary Sources: dogs backing, cars passing	on residential streets
1 Start: 3:54 PM End: 439 PM Leq: 57-6 Lmax:	68.5 Other:
	Other:
3 Start: End: Leq: Lmax:	Other:
4 Start: End: Leq: Lmax:	Other:
Additional Notes/Sketch	
Helicopter at 4:08 to 4:09 PM	
horopic at 100 10 1011	" I have been a second and the secon



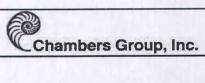
Field Data	Chambers Group, Inc.
Project Name: Delil's Gate Project #:	
Receiver Name: W. End of Shelley St.	Technician: Chris Pylant Date: 6/3/1)
Address: 1021 W. Shelly St. Altac Site Description: @ edg of road	Jena, CA 91001
Temperature: 80° Wind: 119N+ (3-5 mph) Weather: SUNNY	Settings: SLOW FAST Terrain: flat, project site approx. 80-90' lower
Primary Source: Kids playing, dog barking Secondary Sources: UPS truck/delivery, cars	leaving larriving
2 Start: End: Leq: Lmax: 3 Start: End: Leq: Lmax:	: 19.7 Other: : Other: : Other: : Other:
UPS truck + dog barking at Dogs barking at 4:36-8 PM	4:27 24:31 PM



Project Name: Project #:	Devive	s Gate	2				
Receiver Name:	Rose 8	bowl Rid	lets	Tech	nician: Chris		
Address: Site Description:	Lower H Backot	ahamong:	a Watersl	ned Park 2 acent to	1750 Oak Gr equestrian p	roperty, or	asadena, CA n dirt poad
Weather:	light				10-20' K	50' higho	Oak Grove Dr.
					they passed	by	
Start:Start:	4:53 PM	End: STORY End: End: End:	Leq:	Lmax:	Other: Other: Other: Other:		



Project Name: Devil's Gate	
Project #:	
Receiver Name: John Mulic High School Technician: Chris Rylant Date: 6/3/11	
Address: 1905 Lincoln Ave. Pasadena, CA 91103 Site Description: Western end of South Parking lot (edge of last space)	
Temperature: 790 Wind: 119N+ (0-3 MPN) Weather: SUMM	
Primary Source: Traffic on Lincoln Ave. Secondary Sources: Traffic on 210 Freeway	
1 Start: S-219M End: S-369M Leq: 59.9 Lmax: 65.3 Other:	
2 Start: End: Leq: Lmax: Other: 3 Start: End: Leq: Lmax: Other:	
4 Start: End: Leq: Lmax: Other:	
Additional Notes/Sketch	



Project Name: Project #:	Devil's Gate
Receiver Name:	: Irwindale Public Library Technician: Chris Rylant Date: 63/11
	5050 Kwindale Ave. Kwindale, CA 91706 Middle of western edge of parking of
Weather	Settings: Settings: FAST Fraffic on I windale Are.
	Parking lot noise including: people talking, cardoors, cars
2 Start 3 Start	12:08 PM End: 12:23 PM Leq: 52.2 Lmax: 63.7 Other:
Additional Not	es/Sketch

APPENDIX C

FHWA Model Existing Traffic Noise Contour Calculations

Scenario: EXISTING CONDITIONS SITE 1

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		Vehicle Mix	1 (Arterials	s)	Vehicle	/ehicle Mix 2 (Arterial With Project)	erial With	Project)	Ve	Vehicle Mix 3 (SR-210)	3 (SR-210	<u> </u>
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	ıy Evenin N	Night	Daily
Automobiles	69.50%	39.50% 12.90%	%09.6	92.00%	64.86%	11.99%	8.92%	82.77%		63.28% 12.97% 15.17%	15.17%	91.42%
Medium Trucks 1.44% 0.06%	1.44%	%90.0	1.50%	3.00%	1.34%	%90.0	1.39%	2.79%	1.50%	0.27%	0.76%	2.53%
Heavy Trucks 2.40% 0.10%	2.40%	0.10%	2.50%	2.00%	9.20%	%60.0	2.32%	11.62%	3.31%	0.32%	2.42%	6.05%

	Roadway Class
East of I-210 Northbound Ramps	Vehicle Mix: 1
Segment:	Vehicle Speed: 30 MPH
Berkshire Place	Traffic: 8000 Vehicles
Road Name:	Average Daily 1

Major	to	et)	CNEL	13	78	29	128
sification	Distance	our (in fe	Ldn	12	5 6	26	120
Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		56.82 70 dBA:	41.62 65 dBA:	53.21 60 dBA:	58.48 55 dBA:
~			Ldn CNEL			53.21	58.48
•	: 71.39		Ldn	56.19	41.59	53.17	58.05
X: 1	(Equiv. Lane Dist: 71.39 ft)	Unmitigated Noise Levels	Leq Night	47.76	35.44	47.02	50.55
Vehicle Mix: 1		itigated N	Led Eve.	53.82	26.23	37.81	53.93
	TERLINE	Unm	Leq Day I	55.11	34.01	45.59	55.60
Vehicle Speed: 30 MPH	AT 75 FEET FROM CENTERLINE		dj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	57.48	53.22	62.58	64.12
Vehicle Spe	T 75 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:
	ETERS A ⁻	ustments	Dist Adj.	-2.42	-2.42	-2.42	
Vehicles	NOISE PARAMETERS	Noise Adjustmen	REMEL Traffic Adj. Dist Ac	-1.41	-16.27	-14.06	
raffic: 8000	SION		REMELT	62.51	73.11	80.26	
Average Daily Traffic: 8000 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

South of Berkshire Place	1/-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-
Segment:	
Road Name: Oak Grove Drive	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
Road Name:	

n: Major	e to	feet)	CNEL	13	28	29	128
assificatic	Distanc	tour (in	Ldn	12	26	22	118
Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		57.50 70 dBA:	41.42 65 dBA:	60 dBA:	58.48 55 dBA:
Rc			Ldn CNEL	57.50	41.42	51.07	
	st: 71.39		Ldn	26.87	41.38	51.04	57.98
ix: 1	(Equiv. Lane Dist: 71.39 ft)	Unmitigated Noise Levels	Leq Night	48.44	35.23	44.89	50.17
Vehicle Mix: 1		tigated №	ed Eve.	54.49	26.02	35.68	54.56
	TERLINE	Unmi	eq Day L	55.79	33.80	43.46	26.06
Vehicle Speed: 35 MPH	175 FEET FROM CENTERLINE		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	58.16	53.01	60.45	62.93
/ehicle Spe	75 FEET F		Finite Adj	-1.20	-1.20	-1.20	Total:
		stments	Dist Adj.	-2.42	-2.42	-2.42	
Vehicles	NOISE PARAMETERS /	Noise Adjustments	REMEL Traffic Adj. Dist Adj.	-3.33	-18.19	80.05 -15.97	
raffic: 6000	SION		REMELT	65.11	74.83	80.05	
Average Daily Traffic: 6000 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	-

East of Foothill Fw
Segment:
Oak Grove Drive
Road Name:

	rterial	t)	et)	CNEL	17	37	79	170
	Primary ^A	Distance	our (in fe	Ldn	16	34	73	157
	Roadway Classification: Primary Arterial	Centerline Distance to	Noise Contour (in feet)		58.12 58.75 70 dBA:	41.90 65 dBA:	51.18 60 dBA:	59.53 55 dBA:
	dway Cl	ft)		Ldn CNEL	58.75	41.90		59.53
Overpass	Roa	ist: 79.53		Ldn	58.12	41.87	51.15	29.00
East of Foothill Fwy Overpass	×: 1	(Equiv. Lane Dist: 79.53 ft)	Jumitigated Noise Levels	Led Night	49.69	35.71	45.00	51.08
ast of Fo	Vehicle Mix: 1		tigated N	ed Eve.	55.74	26.50	35.79	55.79
		TERLINE	Unmi	∟eq Day I	57.03	34.28	43.57	57.25
Segment:	Vehicle Speed: 40 MPH	AT 85 FEET FROM CENTERLINE		REMELTraffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	59.41	53.49	99.09	63.49
	Vehicle Spe	I 85 FEET I		Finite Adj	-1.20	-1.20	-1.20	Total:
		ETERS AT	ustments	Dist Adj.	-3.13	-3.13	-3.13	
Drive	Vehicles	NOISE PARAMETERS	Noise Adjustmen	affic Adj.	-3.63	-18.49	-16.27	
Oak Grove	raffic: 6400	SION		REMELTr	98'29	76.31	81.16	
Road Name: Oak Grove Drive	Average Daily Traffic: 6400 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

Scenario: EXISTING CONDITIONS SITE 1

Site Conditions

		Arterial	to	et)	CNEL	32	20	150	323
		n: Minor,	Distance	our (in fe	Ldn	30	64	139	299
		Roadway Classification: Minor Arterial	Centerline Distance to	Noise Contour (in feet)		64.48 70 dBA:	48.39 65 dBA:	58.05 60 dBA:	65.45 55 dBA:
2	sdu	padway			Ldn CNEL	64.48	48.39	58.05	65.45
	ound Ran	X	st: 57.66		Ldn	63.85	48.36	58.01	64.95
	North of I-210 Northbound Ramps	x: 1	(Equiv. Lane Dist: 57.66 ft)	Jumitigated Noise Levels	Leq Night	55.41	42.20	51.86	57.14
	North of I	Vehicle Mix: 1		itigated N	eq Eve.	61.47	33.00	42.65	61.53
			TERLINE	Unm	Leq Day I	62.76	40.78	50.43	63.03
	Segment:	Vehicle Speed: 35 MPH	AT 65 FEET FROM CENTERLINE		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	65.13	59.99	67.42	06.69
		Vehicle Spe	T 65 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:
			ETERS	ustments		-1.03	-1.03	-1.03	
	venue	0 Vehicles	NOISE PARAMETERS	Noise Adjustment	affic Adj.	2.26	-12.61	-10.39	
	Windsor A	raffic: 2170	SION		REMEL Traffic Adj. Dist Adj	65.11	74.83	80.05	
	Road Name: Windsor Avenue	Average Daily Traffic: 21700 Vehicles			Vehicle Type	Automobiles	Medium Trucks 74.83	Heavy Trucks	-

Scenario: EXISTING CONDITIONS SITES 2 AND 3

	>	/ehicle Mix '	1 (Arterials	s)	Vehicle	Vehicle Mix 2 (Arterial With Project)	rial With	Project)	>	Vehicle Mix 3 (I-210)	(3 (1-210)	_
Vehicle Type [Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles 69	69.50%	12.90%	%09.6	92.00%	%20.99	12.26%	9.13%	87.45%	64.42%	13.20% 15.44%	15.44%	93.07%
Medium Trucks 1.44%		%90.0	1.50%	3.00%	1.37%	%90.0	1.43%	2.85%	1.24%	0.22%	0.63%	2.09%
Heavy Trucks 2.40% 0.10%	.40%	0.10%	2.50%	2.00%	7.34%	0.10%	2.38%	9.81%	2.65%	0.25%	1.94%	4.84%

	Arterial	to	et)	Ldn CNEL	26	22	119	257
	condary,	Distance	our (in fe	Ldn	24	51	110	237
	Roadway Classification: Secondary Arterial	Centerline Distance to	Noise Contour (in feet)		64.42 70 dBA:	46.90 65 dBA:	55.85 60 dBA:	65.05 55 dBA:
	ay Clas			Ldn CNEL		46.90		65.05
treet	Roadw	st: 50.83		Ldn	63.79	46.86	55.82	64.51
South of Gladstone Street	ix: 1	(Equiv. Lane Dist: 50.83 ft)	Unmitigated Noise Levels	Led Night	55.36	40.71	49.66	56.51
South of	Vehicle Mix: 1		itigated I	Led Eve.	61.41	31.50	40.46	61.45
		TERLINE	Unm	Led Day I	62.71	39.28	48.24	62.88
Segment:	Vehicle Speed: 45 MPH	NOISE PARAMETERS AT 55 FEET FROM CENTERLINE		REMELTraffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	65.08	58.49	65.23	68.61
	Vehicle Spe	T 55 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:
		ETERS A	ustments	Dist Adj.	-0.21	-0.21	-0.21	
Avenue	O Vehicles	SE PARAM	Noise Adjustmen	raffic Adj.	-2.85	-17.72	-15.50	
Vincent /	raffic: 860(ION		REMELT	69.34	77.62	82.14	
Road Name: Vincent Avenue	Average Daily Traffic: 8600 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

Road Name: Vincent Avenue	Vincent A	venue			Segment:		South of	South of Arrow Highway	J.				
Average Daily Traffic: 10600 Vehicles	raffic: 1060	0 Vehicles		Vehicle Sp	Vehicle Speed: 45 MPH		Vehicle Mix: 1	ix: 1	Roadwa	ay Class	Roadway Classification: Secondary Arterial	ondary,	Arterial
	SION	NOISE PARAMETERS ,	IETERS A	T 50 FEET	AT 50 FEET FROM CENTERLINE	JTERLINE		(Equiv. Lane Dist: 45.38 ft)	: 45.381		Centerline Distance to	istance	to
		Noise Adjustment	ustments			Unm	itigated №	Jnmitigated Noise Levels			Noise Contour (in feet)	ur (in fe	et)
Vehicle Type		raffic Adj.	Dist Adj.	Finite Adj	REMELTraffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	Led Day	Leg Eve.	Led Night	Ldn CNEL	CNEL		Ldn	CNEL
Automobiles	69.34	-1.95	0.53	-1.20	66.73	64.35	63.06	57.01	65.44		66.07 70 dBA:	28	30
Medium Trucks 77.62	77.62	-16.81	0.53	-1.20	60.14	40.93	33.15	42.36	48.51	48.54	48.54 65 dBA:	09	65
Heavy Trucks	82.14	-14.59	0.53	-1.20	66.88	49.89	42.10	51.31	57.47	57.50	57.50 60 dBA:	129	140
				Total:	70.26	64.53	63.10	58.16	66.16		66.70 55 dBA:	277	301

	\rterial	to	et)	CNEL	24	115	249	535
	rincipal A	Jistance	our (in fe	Ldn	49	106	229	492
	Roadway Classification: Principal Arterial	Centerline Distance to	Noise Contour (in feet)		68.63 70 dBA:	51.10 65 dBA:	60.06 60 dBA:	69.26 55 dBA:
	Iway Cla			Ldn CNEL	68.63	51.10	90.09	69.26
σ.	Roac	t: 51.96		Ldn	62.29	51.07	60.02	68.71
East of Vincent Avenue	x: 1	(Equiv. Lane Dist: 51.96 ft)	Jnmitigated Noise Levels	Led Night	29.56	44.91	53.87	60.72
ast of Vi	Vehicle Mix: ') (Ec	tigated N	eq Eve.	65.62	35.70	44.66	99.59
		JTERLINE	Unmi	Led Day L	66.91	43.49	52.44	67.08
Segment:	Vehicle Speed: 45 MPH	FROM CEN		Leg Peak	69.28	65.69	69.43	72.81
	Vehicle Spe	AT 60 FEET FROM CENTERLINE		REMELTraffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	-1.20	-1.20	-1.20	Total:
		ETERS A1	ustments	Dist Adj.	-0.35	-0.35	-0.35	
hway	0 Vehicles	NOISE PARAMETERS,	Noise Adjustmen	affic Adj.	1.49	-13.37	82.14 -11.16	
Arrow Hig	raffic: 2340	SION		REMELT	69.34	77.62		
Road Name: Arrow Highway	Average Daily Traffic: 23400 Vehicles			Vehicle Type	Automobiles	Medium Trucks 77.62	Heavy Trucks	

Scenario: EXISTING CONDITIONS SITES 2 AND 3

Project: Devil's Gate Reservoir Site Conditions: Soft

East of Lark Ellen Avenue Segment: **Arrow Highway** Road Name:

Arterial	to	et)	CNEL	24	117	251	542
Principal ⊬	Distance	our (in fe	Ldn	20	107	231	498
Roadway Classification: Principal Arterial	Centerline Distance to	Noise Contour (in feet)		68.70 70 dBA:	51.17 65 dBA:	60 dBA:	55 dBA:
Iway Cla			CNEL	68.70	51.17	60.13	69.33
Roac	51.96		Ldn	68.07	51.14	60.10	68.79
ix: 1	(Equiv. Lane Dist: 51.96 ft)	Jnmitigated Noise Levels	Leq Night	59.64	44.99	53.94	60.79
Vehicle Mix: '		itigated N	eq Eve.	69.59	35.78	44.73	65.73
	TERLINE	Unm	Leq Day I	86.99	43.56	52.52	67.16
Vehicle Speed: 45 MPH	AT 60 FEET FROM CENTERLINE		j. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	98.69	62.77	69.51	72.89
Vehicle Spe	T 60 FEET I		Finite Adj	-1.20	-1.20	-1.20	Total:
	ETERS A ⁻	stments	Dist Adj.	-0.35	-0.35	-0.35	
00 Vehicles	NOISE PARAMETERS	Noise Adjustment	REMEL Traffic Adj. Dist Adj	1.57	-13.30	-11.08	
raffic: 2380	NOIS		REMELT	69.34	77.62	82.14	
Average Daily Traffic: 23800 Vehicles			Vehicle Type	Automobiles	Medium Trucks 77.62	Heavy Trucks	-

East of Enid Avenue Segment: **Arrow Highway** Road Name:

119 256 552 Roadway Classification: Principal Arterial Noise Contour (in feet) **Centerline Distance to** Гd 109 236 51 65 dBA: 60 dBA: 55 dBA: 70 dBA: 68.83 60.26 69.46 51.30 CNEL (Equiv. Lane Dist: 51.96 ft) 68.19 Гg 60.22 51.27 68.91 **Unmitigated Noise Levels** 59.76 Leq Peak Leq Day Leq Eve. Leq Night 45.11 54.07 60.91 Vehicle Mix: 1 65.82 35.90 44.86 65.86 NOISE PARAMETERS AT 60 FEET FROM CENTERLINE 67.11 43.69 52.64 67.28 Vehicle Speed: 45 MPH 69.48 62.89 69.63 73.01 -1.20 -1.20 -1.20 Dist Adj. Finite Adj Total: -0.35 -0.35 Noise Adjustments Average Daily Traffic: 24500 Vehicles -13.17 1.69 -10.96 REMEL Traffic Adj. 82.14 69.34 77.62 Medium Trucks Heavy Trucks Vehicle Type Automobiles

North of Arrow Highway Vehicle Mix: 1 Segment: Vehicle Speed: 45 MPH **Azusa Avenue** Road Name:

ırterial	to	et)	CNEL	20	107	230	497
Principal A	Distance	our (in fe	Ldn	46	86	212	457
Roadway Classification: Principal Arterial	Centerline Distance to	Noise Contour (in feet)		68.14 70 dBA:	50.61 65 dBA:	59.57 60 dBA:	68.77 55 dBA:
dway Cla			CNEL	68.14	50.61	59.57	68.77
Roac	t: 51.96		Ldn	67.50	50.58	59.53	68.22
ix: 1	(Equiv. Lane Dist: 51.96 ft)	Unmitigated Noise Levels		20.65	44.42	53.38	60.22
Vehicle Mix: 1		itigated N	eq Eve.	65.13	35.21	44.17	65.17
	TERLINE	Unm	eq Day I-	66.42	43.00	51.95	66.59
/ehicle Speed: 45 MPH	AT 60 FEET FROM CENTERLINE		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	68.79	62.20	68.94	72.32
/ehicle Spe	. 60 FEET I		Finite Adj	-1.20	-1.20	-1.20	Total:
		stments		-0.35	-0.35	-0.35	
0 Vehicles	NOISE PARAMETERS	Noise Adjustments	REMELTraffic Adj. Dist Adj	1.00	-13.86	-11.65	
affic: 2090	SION		REMELT	69.34	77.62	82.14	
Average Daily Traffic: 20900 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	-

North of Gladstone Street Segment: Azusa Avenue Road Name:

Arterial	to	et)	CNEL	34	73	157	338
Principal ,	Distance	our (in fe	Ldn	31	29	145	313
Roadway Classification: Principal Arterial	Centerline Distance to	Noise Contour (in feet)		64.14 64.77 70 dBA:	48.68 65 dBA:	58.34 60 dBA:	55 dBA:
lway Cla			CNEL	64.77	48.68	58.34	65.74
Roac	t: 57.66		Ldn	64.14	48.65	58.30	65.24
x: 1	(Equiv. Lane Dist: 57.66 ft)	Unmitigated Noise Levels			42.49	52.15	57.43
Vehicle Mix: 1	(Eo	tigated N	ed Eve.	61.76	33.29	42.94	61.82
	ITERLINE	Unmi	Led Day L	63.05	41.07	50.72	63.33
Vehicle Speed: 35 MPH	AT 65 FEET FROM CENTERLINE		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	65.42	60.28	67.71	70.19
/ehicle Spe	65 FEET I		Finite Adj	-1.20	-1.20	-1.20	Total:
	ETERS AT	stments		~	-1.03	-1.03	
0 Vehicles	NOISE PARAMETERS	Noise Adjustment	affic Adj.	2.55	-12.32	-10.10	
affic: 23200	SION		REMELTraffic Adj. Dist Adj	65.11	74.83	80.05	
Average Daily Traffic: 23200 Vehicles			Vehicle Type	Automobiles	Medium Trucks 74.83	Heavy Trucks	•

Scenario: EXISTING CONDITIONS SITE 4

Project: Devil's Gate Reservoir Site Conditions: Soft

		Vehicle Mix 1	1 (Arterial	(S)	Vehicle N	lix 2 (Scho	II Cyn Witl	/ehicle Mix 2 (Scholl Cyn With Project)	Vehicle I	Vehicle Mix 3 (Figueroa W-Project)	ueroa W-l	Project)
Vehicle Type	Day	Day Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin Night	Night	Daily
Automobiles	69.50% 12.90%	12.90%	%09.6	92.00%	%96 [.] 68	7.42%	5.52%	52.90%		67.90% 12.60%	9.38%	88.88%
Medium Trucks 1.44%	1.44%	%90.0	1.50%	3.00%	0.83%	0.03%	0.86%	1.73%	1.41%	0.06% 1.47%	1.47%	2.93%
Heavy Trucks 2.40%	2.40%	0.10%	2.50%	2.00%	44.90%	%90.0	0.44%	45.40%	6.41%	0.10%	2.48%	8.99%

	Ilside	0	it)	CNEL	4	œ	17	38
	ication: H	istance t	ur (in fee	Ldn CNEL	3	œ	16	32
	Roadway Classification: Hillside	Centerline Distance to	Noise Contour (in feet)		52.23 52.86 70 dBA:	36.78 65 dBA:	46.43 60 dBA:	53.84 55 dBA:
sdut	Roa			Ldn CNEL	52.86	36.78	46.43	53.84
ound Re		44.09		Ldn	52.23	36.74	46.40	53.33
North of SR-134 Westbound Ramps	x: 1	(Equiv. Lane Dist: 44.09 ft)	Jnmitigated Noise Levels	Leq Night	43.80	30.59	40.24	45.53
orth of S	Vehicle Mix: 1	E(tigated N	ed Eve.	49.85	21.38	31.03	49.92
	^	ITERLINE	Unmi	Led Day L	51.15	29.16	38.82	51.42
Segment:	ed: 35 MPI	-ROM CEN		Leg Peak	53.52	48.37	55.81	58.29
	Vehicle Speed: 35 MPH	AT 45 FEET FROM CENTERLINE		. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	-1.20	-1.20	-1.20	Total:
7	1	ETERS AT	ustments	Dist Adj.	0.72	0.72	0.72	
nyon Road	Vehicles	NOISE PARAMETERS	Noise Adjustment	REMEL Traffic Adj. Dist Adj	-11.11	-25.97	-23.76	
Scholl Ca	raffic: 1000	SION		REMELTI	65.11	74.83	80.05	
Road Name: Scholl Canyon Road	Average Daily Traffic: 1000 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

	condary	e to	eet)	Ldn CNEL	20	43	95	198
	ation: Sec	Distance	tour (in f	Ldn	18	33	82	183
	Roadway Classification: Secondary	Centerline Distance to	Noise Contour (in feet)		61.73 62.36 70 dBA:	46.28 65 dBA:	55.93 60 dBA:	62.83 63.34 55 dBA:
	Roadwa			Ldn CNEL	62.36	46.28		63.34
rive		t: 49.49		Ldn	61.73	46.24	55.90	62.83
South of Eagle Vista Drive	x: 1	(Equiv. Lane Dist: 49.49 ft)	Unmitigated Noise Levels	Led Night		40.09	49.74	55.03
south of I	Vehicle Mix: 1		itigated N	ed Eve.	59.32	30.88	40.54	59.42
		TERLINE	Unm	eq Day 1	60.65	38.66	48.32	60.92
Segment:	Vehicle Speed: 35 MPH	S AT 55 FEET FROM CENTERLINE		Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	63.02	57.87	65.31	67.79
	/ehicle Spe	⁻ 55 FEET I		Finite Adj	-1.20	-1.20	-1.20	Total:
		ETERS AT	stments	Dist Adj.	-0.04	-0.04	-0.04	
Street	30 Vehicles	NOISE PARAMETER	Noise Adjustme	REMELTraffic Adj. Dist A	-0.86	-15.72	-13.50	
Figueroa	affic: 1060	ION		REMELT	65.11	74.83	80.05	
Road Name: Figueroa Street	Average Daily Traffic: 10600 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	•

Scenario: EXISTING CONDITIONS SITES 5, 6, 7, AND 8

Project: Devil's Gate Reservoir Site Conditions: Soft

	-	Vehicle Mix 1 (1 (Arterials)	s)	Vehicle I	/ehicle Mix 2 (Foothill Blvd W-Project) Vehicle Mix 3 (Wentworth W-Project)	Jill Blvd M	/-Project)	Vehicle N	lix 3 (Wen	tworth W	-Project)
Vehicle Type	Day	Day Evening I	Night	Daily	Day	Evening	Night	Daily	Day	Day Evenin	Night	Daily
Automobiles	%05.69	69.50% 12.90%	%09.6	92.00%	%96'79	12.06%	8 8.97%	82.98%		66.68% 12.38% 9.21%	9.21%	88.27%
Medium Trucks 1.44%	1.44%	%90.0	1.50%	3.00%	1.35%	%90.0	1.40%	2.80%	1.38%	%90.0	0.06% 1.44%	2.88%
Heavy Trucks 2.40% 0.10%	2.40%	0.10%	2.50%	2.00%	8.94%	%60.0	2.34%	11.37%	6.74%	0.10%	2.40%	9.23%

		: Major	to	et)	CNEL	33	7	154	332
2/01:0		ssification	Distance	tour (in fe	Ldn	31	99	142	305
5		Roadway Classification: Major	Centerline	Noise Contour (in feet)		60.93 61.56 70 dBA:	44.04 65 dBA:	52.99 60 dBA:	62.19 55 dBA:
2	sdı	Ro	7 ft) (1		Ldn CNEL	61.56	44.04	52.99	62.19
2	ınd Ran		t: 107.5		Ldn	60.93	44.00	52.96	61.65
	South of I-210 Westbound Ramps	×: .1	(Equiv. Lane Dist: 107.57 ft) Centerline Distance to	Unmitigated Noise Levels	Leq Night	52.50	37.85	46.80	53.65
5	South of I-	Vehicle Mix: 1		itigated N	ed Eve.	58.55	28.64	37.60	58.59
200			TERLINE	Unmi	Leq Day 1	28.82	36.42	45.38	60.02
	Segment:	Vehicle Speed: 45 MPH	AT 110 FEET FROM CENTERLINE		Led Peak	62.22	55.63	62.37	65.75
2000		Vehicle Spe	110 FEET I		Finite Adj	-1.20	-1.20	-1.20	Total:
20.50			TERS AT	stments	Dist Adj.	-5.09	-5.09	-5.09	
5	Foothill Boulevard	30 Vehicles	NOISE PARAMETERS	Noise Adjustments	REMELTraffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	-0.83	-15.70	-13.48	
200	Foothill E	raffic: 1370	SION		REMELT	69.34	77.62	82.14	
	Road Name:	Average Daily Traffic: 13700 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	-

Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)	Ldn CNEL	3A: 27 29	3A: 59 64	3A: 126 137	3A: 272 295
Roadwa	Cente	Noise	IEL I	63.96 64.59 70 dBA:	47.74 65 dBA:	56.99 57.03 60 dBA:	65.37 55 dBA:
	55.42 ft)		Ldn CNEL	3.96 64	47.71 47	6.99 57	64.84 65
×: 1	(Equiv. Lane Dist: 55.42 ft)	Unmitigated Noise Levels		55.53 63	41.56 47	50.84 56	26.93
Vehicle Mix: 1		tigated №	ed Eve.	61.59	32.35	41.63	61.64
<i>></i>	TERLINE	Unmi	Led Day L	62.88	40.13	49.41	63.09
Vehicle Speed: 40 MPH	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE		REMELTraffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	65.25	59.34	66.40	69.33
Vehicle Spe	F 60 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:
	ETERS AT	stments	Dist Adj.	-0.77	-0.77	-0.77	
3 Vehicles	E PARAMI	Noise Adjustments	affic Adj.	-0.13	-15.00	-12.78	
affic: 14300	SION		REMELTR	67.36	76.31	81.16	
Average Daily Traffic: 14300 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

West of Foothill Boulevard

Segment:

Osborne Street

Road Name:

: Major	to	eet)	CNEL	51	11	239	515
sification	Distance	our (in f	Ldn	47	102	220	474
Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		68.37 70 dBA:	50.85 65 dBA:	60 dBA:	69.00 55 dBA:
Rc			CNEL	68.37	50.85	59.80	69.00
	: 55.42		Ldn	67.74	50.81	59.77	68.46
x: 1	(Equiv. Lane Dist: 55.42 ft)	Jumitigated Noise Levels	Led Night	59.31	44.66	53.61	60.46
Vehicle Mix: 1) (Ec	tigated N	eq Eve.	65.36	35.45	44.41	65.40
	ITERLINE	Unmi	Led Day L	99.99	43.23	52.19	66.83
ed: 45 MPH	FROM CEN		Leg Peak	69.03	62.44	69.18	72.56
Vehicle Speed: 45 MPH	AT 60 FEET FROM CENTERLINE		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	-1.20	-1.20	-1.20	Total:
	ETERS AT	nstments	. Dist Adj.	-0.77	-0.77	-0.77	
0 Vehicles	NOISE PARAMETERS	Noise Adjustmen	affic Adj.	1.66	-13.21	-10.99	
affic: 2430	SION		REMEL Traffic Adj.	69.34	77.62	82.14	
Average Daily Traffic: 24300 Vehicles			Vehicle Type	Automobiles	Medium Trucks 77.62	Heavy Trucks	

Scenario: EXISTING CONDITIONS SITES 5, 6, 7, AND 8

Project: Devil's Gate Reservoir

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	Major	t t	et)	CNEL	38	83	178	385		Major	to	et)	CNEL	42	91	196	421		Major	t t	et)	CNEL	25	22	118	254		ondary	ţ	et)	CNEL	28	61	131	283
Ę	sification:	Distance	Contour (in feet)	Ldn	32	9/	164	354		sification:	Jistance	our (in fe	Ldn	33	84	180	388		sification:	Distance	our (in fe	Ldn	23	20	108	233		tion: Seco	Distance	our (in fe	Ldn	26	26	121	260
Site Conditions: Soft	Roadway Classification: Major	Centerline Distance to	Noise Conto			65 dBA:	60 dBA:	55 dBA:		Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		70 dBA:	65 dBA:		55 dBA:		Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		70 dBA:	65 dBA:	60 dBA:	55 dBA:		Roadway Classification: Secondary	Centerline Distance to	Noise Contour (in feet)		70 dBA:	65 dBA:	60 dBA:	55 dBA:
Site Co	ŭ	ft)		CNEL	67.04	49.51	58.47	67.67		ď	ft)		CNEL	67.07	49.54	58.50	67.70		ď	ft)		CNEL	63.36	45.23	53.89	63.88		Roadw	-		CNEL	64.48	46.95	55.91	65.11
7	ត	t: 49.96 ft)		Ldn	66.41	49.48	58.43	67.12	levard		55.42		Ldn	66.44	49.51	58.46	67.15	ue		60.79		Ldn	62.73	45.19	53.86	63.32	evard		54.99		Ldn	63.85	46.92	55.87	64.56
toonto occupa de de oc	eillose sure c: 1	Equiv. Lane Dist	oise Levels	Leq Night	25.97	43.32	52.28	59.13	South of Sunland Boulevard	c. 1	Equiv. Lane Dist:	Unmitigated Noise Levels	eq Night-	58.00	43.35	52.31	59.16	East of Wheatland Avenue	c. 1	(Equiv. Lane Dist:	Unmitigated Noise Levels	Led Night	54.30	39.04	47.70	55.26	South of Foothill Boulevard	c. 1	Equiv. Lane Dist:	Unmitigated Noise Levels	eq Night-	55.41	40.76	49.72	26.57
90 441.0	Vehicle Mix:	(Eq	Unmitigated Noise	eq Eve. 1	64.03	34.11	43.07	64.07	outh of S	Vehicle Mix:	(Eq	tigated N	eq Eve. 1	64.06	34.15	43.10	64.10	ast of Wh	Vehicle Mix:	(Eq	tigated N		60.35	29.83	38.50	60.38	outh of F	Vehicle Mix:	(Eq	tigated N	eq Eve. 1	61.47	31.56	40.51	61.51
		Ë	Unmi	Led Day L	65.32	41.90	50.85	65.49			TERLINE	Unmi	Leq Day Leq Eve. Leq Night	65.35	41.93	50.88	65.52		_	TERLINE	Unmi	Led Day Led Eve.	61.64	37.61	46.28	61.78			TERLINE	Unmi	eq Day L	62.76	39.34	48.29	62.93
Compos	Vehicle Speed: 45 MPH	FROM CENTERI		Led Peak	69.79	61.10	67.84	71.22	Segment:	Vehicle Speed: 45 MPH	60 FEET FROM CENTERLINE		Led Peak	67.72	61.14	67.87	71.25	Segment:	Vehicle Speed: 50 MPH	NOISE PARAMETERS AT 65 FEET FROM CENTERLINE		Led Peak	64.02	56.82	63.27	67.10	Segment:	Vehicle Speed: 45 MPH	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE		Led Peak	65.13	58.54	65.28	99.89
	ehicle Spe	55 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:		ehicle Spe	60 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:		ehicle Spe	65 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:		ehicle Spe	60 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:
7	5	ETERS AT	Noise Adjustments	Dist Adj. F	-0.10	-0.10	-0.10		5		ETERS AT	Noise Adjustments	Dist Adj. F	-0.77	-0.77	-0.77			>	ETERS AT	ustments	Dist Adj. F	-1.38	-1.38	-1.38			>	ETERS AT	Noise Adjustments		-0.72	-0.72	-0.72	
	Vehicles	NOISE PARAMETER	Voise Adj	affic Adj.	-0.35	-15.22	-13.00		Bouleva) Vehicles	E PARAN	Voise Adj	affic Adj.	0.35	-14.51	-12.30		oulevard	Vehicles	E PARAN	Noise Adjustments	affic Adj.	-4.53	-19.39	-17.18		Street	Vehicles	E PARAN	Voise Adj	affic Adj.	-2.29	-17.15	-14.94	
	Glen Cars raffic: 15300	SION	_	REMEL Traffic Adj.	69.34	77.62	82.14		Glen Oaks Boulevard	raffic: 18000	SION	2	REMEL Traffic Adj.	69.34	77.62	82.14		Foothill Boulevard	raffic: 6500	SION	_	REMEL Traffic Adj.	71.12	78.79	83.02		Wentworth Street	raffic: 9800	SION	~	REMEL Traffic Adj.	69.34	77.62	82.14	
Now of	Average Daily Traffic: 15300 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks		Road Name:	Average Daily Traffic: 18000 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks		Road Name:	Average Daily Traffic: 6500 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks		Road Name:	Average Daily Traffic: 9800 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

Scenario: EXISTING CONDITIONS SITES 5, 6, 7, AND 8

Project: Devil's Gate Reservoir

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Road Name:	Osborne Street	street			Segment:		ast of I-5	East of I-5 Northbound Ramps	d Ramps		one condinons: son	=	
Average Daily T	Traffic: 30600 Vehicles	O Vehicles		/ehicle Spe	Vehicle Speed: 35 MPH		Vehicle Mix: 1	<u>-</u>	•	R	Roadway Classification: Major	ification:	Major
	SION	NOISE PARAMETERS		AT 85 FEET	FROM CENTERLINE	ITERLINE	(Eq	Equiv. Lane Dist:	st: 81.83 ft)		Centerline Distance to	istance	ု
		Noise Adjustments	stments			Unmit	igated No	Unmitigated Noise Levels			Noise Contour (in feet)	ur (in fe	jt)
Vehicle Type	REMEL Traffic Adj.	ı	Dist Adj.	Finite Adj	Leg Peak	Leq Day Leq Eve.		Led Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	3.75	-3.31	-1.20	64.35	61.97	89.09	54.63	90.69	63.69	70 dBA:	32	37
Medium Trucks	74.83	-11.12	-3.31	-1.20	59.20	39.99	32.21	41.42	47.57	47.60	65 dBA:	75	8
Heavy Trucks	80.05	-8.90	-3.31	-1.20	66.63	49.64	41.86	51.07	57.23	57.26	60 dBA:	161	174
				Total:	69.12	62.25	60.74	56.36	64.16	64.67	55 dBA:	347	375
Road Name:	Laurel Car	Laurel Canyon Boulevard	vard		Segment:		outh of O	South of Osborne Street	eet				
Average Daily Traffic: 18300 Vehicles	raffic: 18300	O Vehicles		/ehicle Spe	Vehicle Speed: 35 MPH		Vehicle Mix:	: 1		RC	Roadway Classification: Major	ification:	Major
	SION	NOISE PARAMETERS		. 60 FEET	AT 60 FEET FROM CENTERLINE	ITERLINE	(Edi	(Equiv. Lane Dist:	st: 55.42 ft)		Centerline Distance to	istance	0
	_	Noise Adjustments	stments			Unmit	igated No	Unmitigated Noise Levels			Noise Contour (in feet)	ur (in fe) (}
Vehicle Type	REMEL Traffic Adj.		Dist Adj.	Finite Adj	Leq Peak	Led Day Leg Eve.		Led Night	Ldn	CNEL		rdn	CNEL
Automobiles	65.11	1.52	-0.77	-1.20	64.65	62.28	60.09	54.93	63.36	64.00	70 dBA:	56	28
Medium Trucks	74.83	-13.35	-0.77	-1.20	59.50	40.30	32.51	41.72	47.88	47.91	65 dBA:	22	09
Heavy Trucks	80.05	-11.13	-0.77	-1.20	66.94	49.95	42.17	51.38	57.53	57.57	60 dBA:	119	129
				Total:	69.42	62.55	61.05	99.99	64.47	64.97	55 dBA:	257	277
Road Name:	Branford Street	Street			Seament:		ast of Lau	East of Laurel Canvon Boulevard	า Bouleva	rd L			
Average Daily Traffic: 10500 Vehicles	raffic: 10500) Vehicles		/ehicle Sp	Vehicle Speed: 35 MPH		Vehicle Mix			Roadw	Roadway Classification: Secondary	Seco	ndary
	SION	NOISE PARAMETERS		50 FEET	AT 50 FEET FROM CENTERLINE	ITERLINE	(Egi	(Equiv. Lane Dist:	st: 43.86 ft)	ft)	Centerline Distance to	istance	0
		Noise Adiustments				Unmit	igated No	Unmitigated Noise Levels			Noise Contour (in feet)	ur (in fe	(J č
Vahicle Tyne	REMEI Traffic Adi	-	Diet Adi	Finite Adi	l ad Daak	I AC Day	L eve Eve	l ed Night	-	UNE		ب ا	NEI
Automobiles	65 11		0.75	7	63.76	200	5 5	1 1 N N N N N N N N N N N N N N N N N N	62 47	63 11	70 AB A.		200
Medium Trucks	74.83		0.75	-1.20	58.61	39.41	31.63	40.83	46.99	47.02	65 dBA:	6 4	4 5 8
Heavy Trucks	80.05	-13.54	0.75	-1.20	66.05	49.06	41.28	50.49	56.64	56.68	60 dBA:	87	94
				Total:	68.53	61.66	60.16	55.77	63.58	64.08	55 dBA:	187	202
Road Name:	Branford Street	Street			Segment:		est of La	West of Laurel Canyon Boulevard	n Boulev	ard			
Average Daily T	Traffic: 12000 Vehicles	O Vehicles		/ehicle Spe	Vehicle Speed: 35 MPH		Vehicle Mix:			Roadwa	Roadway Classification: Secondary	ion: Seco	ndary
	SION	NOISE PARAMETERS	TERS AT	65 FEET	FROM CENTERLINE	ITERLINE	(Eq	(Equiv. Lane Dist:	60.41	ft)	Centerline Distance to	istance	၉
		Noise Adjustment	stments			Unmit	igated No	Unmitigated Noise Levels			Noise Contour (in feet)	ur (in fe) (}
Vehicle Type	REMEL Traffic Adj.		Dist Adj.	Finite Adj	Leq Peak	Led Day L	Led Eve. L	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-0.32	-1.34	-1.20	62.26	29.89	58.59	52.54	26.09	61.60	70 dBA:	19	21
Medium Trucks	74.83	-15.18	-1.34	-1.20	57.11	37.90	30.12	39.33	45.48	45.52	65 dBA:	4	45
Heavy Trucks	80.05	-12.96	-1.34	-1.20	64.55	47.56	39.78	48.98	55.14	55.17	60 dBA:	88	26
				Total:	67.03	60.16	58.66	54.27	62.07	62.58	55 dBA:	193	208

Scenario: EXISTING CONDITIONS SITES 5, 6, 7, AND 8

Project: Devil's Gate Reservoir Site Conditions: Soft

South of Branford Street Segment: San Fernando Road Road Name:

: Major	to	eet)	CNEL	23	51	109	235
sificatior	Distance	our (in f	Ldn	22	47	101	217
Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		55.41 70 dBA:	39.32 65 dBA:	48.98 60 dBA:	55 dBA:
쮼			CNEL		39.32	48.98	56.38
	ist: 188.6		Ldn	54.78	39.29	48.94	55.88
x: 1	(Equiv. Lane Dist: 188.6 ft)	Unmitigated Noise Levels	Led Night	46.34	33.13	42.79	48.07
Vehicle Mix: 1		itigated N	ed Eve.	52.40	23.93	33.58	52.46
Vehicle Speed: 35 MPH	VTERLINE	Unm	Led Day I	53.69	31.71	41.36	53.96
	FROM CEN		Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	90'99	50.92	58.35	60.83
/ehicle Spe	190 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:
	TERS AT	stments	Dist Adj.	-8.75	-8.75	-8.75	
30 Vehicles	NOISE PARAMETERS AT 190 FEET FROM CENTERLINE	Noise Adjustmer	REMEL Traffic Adj. Dist A	0.91	-13.96	-11.74	
affic: 1590	SION		REMELT	65.11	74.83	80.05	
Average Daily Traffic: 15900 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

APPENDIX D

RCNM Model On-Site Construction Equipment Noise Calculations

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 7/1/2013

Case Description: Devil's Gate Dam and Reservoir

---- Receptor #1 ----

	Base	lines ((dBA)	
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Description Land Use Daytime Evening Night SFH in Pasadena Residential 57.6 57.6 57.6

			Equipme	nt			
			Spec	Actual		Receptor	Estimated
	Impact		Lmax	Lmax		Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)		(feet)	(dBA)
Dozer	No	40			81.7	140	0
Dozer	No	40			81.7	240	0
Excavator	No	40			80.7	340	0
Grader	No	40	8	35		440	0
Front End Loader	No	40			79.1	540	0
Front End Loader	No	40			79.1	640	0
Front End Loader	No	40			79.1	740	0
Front End Loader	No	40			79.1	840	0
Concrete Batch Plant	No	15	8	33		940	0
Dump Truck	No	40			76.5	1040	0
Dump Truck	No	40			76.5	1140	0
Dump Truck	No	40			76.5	1240	0
Flat Bed Truck	No	40			74.3	1340	0
Pickup Truck	No	40			75	1440	0

		Re	esults		
	Calculated (dBA)		Noise	Limits (dBA)	
		Da	ay	Evening	
Equipment	*Lmax Leq	Ln	max Leq	Lmax	Leq
Dozer	72.7	68.7 N/	/A N/A	N/A	N/A
Dozer	68	64.1 N/	/A N/A	N/A	N/A
Excavator	64	60 N/	/A N/A	N/A	N/A
Grader	66.1	62.1 N/	/A N/A	N/A	N/A
Front End Loader	58	55 N/	/A N/A	N/A	N/A
Front End Loader	57	53 N/	/A N/A	N/A	N/A
Front End Loader	55.7	51.7 N/	/A N/A	N/A	N/A
Front End Loader	54.6	50.6 N/	/A N/A	N/A	N/A
Concrete Batch Plant	57.5	49.3 N/	/A N/A	N/A	N/A
Dump Truck	50.1	46.1 N/	/A N/A	N/A	N/A
Dump Truck	49.3	45.3 N/	/A N/A	N/A	N/A
Dump Truck	48.6	44.6 N/	/A N/A	N/A	N/A
Flat Bed Truck	45.7	41.7 N/	/A N/A	N/A	N/A
Pickup Truck	45.8	41.8 N/	/A N/A	N/A	N/A
Total	73	71 N/	/A N/A	N/A	N/A

^{*}Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines	(dBA)		
Description	Land Use	Daytime	Evening	ı Night	
SFH in LA County	Residential	58.4	4	58.4	58.4

			Equipm	ent			
			Spec	Actual		Receptor	Estimated
	Impact		Lmax	Lmax		Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)		(feet)	(dBA)
Dozer	No	40)		81.7	180	0
Dozer	No	40)		81.7	280	0
Excavator	No	40)		80.7	380	0
Grader	No	40)	85		480	0
Front End Loader	No	40)		79.1	580	0
Front End Loader	No	40)		79.1	680	0
Front End Loader	No	40)		79.1	780	0
Front End Loader	No	40)		79.1	880	0
Concrete Batch Plant	No	15	5	83		980	0
Dump Truck	No	40)		76.5	1080	0
Dump Truck	No	40)		76.5	1180	0
Dump Truck	No	40)		76.5	1280	0
Flat Bed Truck	No	40)		74.3	1380	0
Pickup Truck	No	40)		75	1480	0

			Results			
	Calculated (d	dBA)		Noise Limits	(dBA)	
			Day		Evening	
Equipment	*Lmax I	Leq	Lmax	Leq	Lmax	Leq
Dozer	70.5	66.6	N/A	N/A	N/A	N/A
Dozer	66.7	62.7	N/A	N/A	N/A	N/A
Excavator	63.1	59.1	N/A	N/A	N/A	N/A
Grader	65.4	61.4	N/A	N/A	N/A	N/A
Front End Loader	57.8	53.8	N/A	N/A	N/A	N/A
Front End Loader	56.4	52.5	N/A	N/A	N/A	N/A
Front End Loader	55.2	51.3	N/A	N/A	N/A	N/A
Front End Loader	54.2	50.2	N/A	N/A	N/A	N/A
Concrete Batch Plant	57.2	48.9	N/A	N/A	N/A	N/A
Dump Truck	49.8	45.8	N/A	N/A	N/A	N/A
Dump Truck	49.0	45.0	N/A	N/A	N/A	N/A
Dump Truck	48.3	44.3	N/A	N/A	N/A	N/A
Flat Bed Truck	45.4	41.5	N/A	N/A	N/A	N/A
Pickup Truck	45.6	41.6	N/A	N/A	N/A	N/A
Total	71	70	N/A	N/A	N/A	N/A

^{*}Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines	(dBA)		
Description	Land Use	Daytime	Evening	Night	
JPL Office in LCF	Commercial	58.	0	58.0	58

			Equipm	nent			
			Spec	Actual		Receptor	Estimated
	Impact		Lmax	Lmax		Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)		(feet)	(dBA)
Dozer	No	40)		81.7	200	0
Dozer	No	40)		81.7	300	0
Excavator	No	40)		80.7	400	0
Grader	No	40)	85		500	0
Front End Loader	No	40)		79.1	600	0
Front End Loader	No	40)		79.1	700	0
Front End Loader	No	40)		79.1	800	0
Front End Loader	No	40)		79.1	900	0
Concrete Batch Plant	No	1	5	83		1000	0
Dump Truck	No	40)		76.5	1100	0
Dump Truck	No	40)		76.5	1200	0
Dump Truck	No	40)		76.5	1300	0
Flat Bed Truck	No	40)		74.3	1400	0
Pickup Truck	No	40)		75	1500	0

				Results			
	Calculated	(dBA)			Noise Limits	(dBA)	
				Day		Evening	
Equipment	*Lmax	Leq		Lmax	Leq	Lmax	Leq
Dozer	69.6		65.6	N/A	N/A	N/A	N/A
Dozer	66.1		62.1	N/A	N/A	N/A	N/A
Excavator	62.6		58.7	N/A	N/A	N/A	N/A
Grader	65.0		61.0	N/A	N/A	N/A	N/A
Front End Loader	57.5		53.5	N/A	N/A	N/A	N/A
Front End Loader	56.2		52.2	N/A	N/A	N/A	N/A
Front End Loader	55.0		51.0	N/A	N/A	N/A	N/A
Front End Loader	54.0		50.0	N/A	N/A	N/A	N/A
Concrete Batch Plant	57.0		48.7	N/A	N/A	N/A	N/A
Dump Truck	49.6		45.6	N/A	N/A	N/A	N/A
Dump Truck	48.8		44.9	N/A	N/A	N/A	N/A
Dump Truck	48.2		44.2	N/A	N/A	N/A	N/A
Flat Bed Truck	45.3		41.3	N/A	N/A	N/A	N/A
Pickup Truck	45.5		41.5	N/A	N/A	N/A	N/A
Total	70		69	N/A	N/A	N/A	N/A

^{*}Calculated Lmax is the Loudest value.

---- Receptor #4 ----

76.5

76.5

74.3

75

1020

1120

1220

1320

0

0

0

0

Description	Land Use	Daytime	Evening	Night	50.4			
Park in LCF	Commercial	50	0 50)	50.4			
				Equip	ment			
				Spec	Actual		Receptor	Estimated
		Impact		Lmax	Lmax		Distance	Shielding
Description		Device	Usage(%)	(dBA)	(dBA)		(feet)	(dBA)
Dozer		No	40)		81.7	20	0
Dozer		No	40)		81.7	120	0
Excavator		No	40)		80.7	220	0
Grader		No	40)	85		320	0
Front End Loader		No	40)		79.1	420	0
Front End Loader		No	40)		79.1	520	0
Front End Loader		No	40)		79.1	620	0
Front End Loader		No	40)		79.1	720	0
Concrete Batch Plant		No	15	;	83		820	0
Dump Truck		No	40)		76.5	920	0

40

40

40

40

Baselines (dBA)

No

No

No

No

Dump Truck

Dump Truck

Flat Bed Truck

Pickup Truck

	Calculated	(dBA)		Noise Limits	(dBA)	
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	89.6	85.6	N/A	N/A	N/A	N/A
Dozer	74.1	70.1	N/A	N/A	N/A	N/A
Excavator	67.8	63.9	N/A	N/A	N/A	N/A
Grader	68.9	64.9	N/A	N/A	N/A	N/A
Front End Loader	60.6	56.6	N/A	N/A	N/A	N/A
Front End Loader	58.8	54.8	N/A	N/A	N/A	N/A
Front End Loader	57.2	53.3	N/A	N/A	N/A	N/A
Front End Loader	55.9	52.0	N/A	N/A	N/A	N/A
Concrete Batch Plant	58.7	50.5	N/A	N/A	N/A	N/A
Dump Truck	51.2	47.2	N/A	N/A	N/A	N/A
Dump Truck	50.3	46.3	N/A	N/A	N/A	N/A
Dump Truck	49.4	45.5	N/A	N/A	N/A	N/A
Flat Bed Truck	46.5	42.5	N/A	N/A	N/A	N/A
Pickup Truck	46.6	42.6	N/A	N/A	N/A	N/A
Total	90	86	N/A	N/A	N/A	N/A

^{*}Calculated Lmax is the Loudest value.

---- Receptor #5 ----

		Baselines ((dBA)		
Description	Land Use	Daytime	Evening	Night	
High School in LCF	Commercial	58	3	58	57.9

			Equipm	ent			
			Spec	Actual		Receptor	Estimated
	Impact		Lmax	Lmax		Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)		(feet)	(dBA)
Dozer	No	40)		81.7	430	0
Dozer	No	40)		81.7	530	0
Excavator	No	40)		80.7	630	0
Grader	No	40)	85		730	0
Front End Loader	No	40)		79.1	830	0
Front End Loader	No	40)		79.1	930	0
Front End Loader	No	40)		79.1	1030	0
Front End Loader	No	40)		79.1	1130	0
Concrete Batch Plant	No	15	;	83		1230	0
Dump Truck	No	40)		76.5	1330	0
Dump Truck	No	40)		76.5	1430	0
Dump Truck	No	40)		76.5	1530	0
Flat Bed Truck	No	40)		74.3	1630	0
Pickup Truck	No	40)		75	1730	0

				Results			
	Calculated	(dBA)			Noise Limits	(dBA)	
				Day		Evening	
Equipment	*Lmax	Leq		Lmax	Leq	Lmax	Leq
Dozer	63.0)	59.0	N/A	N/A	N/A	N/A
Dozer	61.2	2	57.2	N/A	N/A	N/A	N/A
Excavator	58.7	7	54.7	N/A	N/A	N/A	N/A
Grader	61.7	7	57.7	N/A	N/A	N/A	N/A
Front End Loader	54.7	7	50.7	N/A	N/A	N/A	N/A
Front End Loader	53.7	7	49.7	N/A	N/A	N/A	N/A
Front End Loader	52.8	3	48.9	N/A	N/A	N/A	N/A
Front End Loader	52.0)	48.0	N/A	N/A	N/A	N/A
Concrete Batch Plant	55.2	2	46.9	N/A	N/A	N/A	N/A
Dump Truck	48.0)	44.0	N/A	N/A	N/A	N/A
Dump Truck	47.3	3	43.3	N/A	N/A	N/A	N/A
Dump Truck	46.7	7	42.8	N/A	N/A	N/A	N/A
Flat Bed Truck	44.0)	40.0	N/A	N/A	N/A	N/A
Pickup Truck	44.2	2	40.2	N/A	N/A	N/A	N/A
Total	63	3	64	N/A	N/A	N/A	N/A

^{*}Calculated Lmax is the Loudest value.

---- Receptor #6 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night	
Church in LCF	Commercial	67		67	66.7

			Equipmen	t			
			Spec	Actual		Receptor	Estimated
	Impact		Lmax	Lmax		Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)		(feet)	(dBA)
Dozer	No	40			81.7	500	0
Dozer	No	40			81.7	600	0
Excavator	No	40			80.7	700	0
Grader	No	40	8	5		800	0
Front End Loader	No	40			79.1	900	0
Front End Loader	No	40			79.1	1000	0
Front End Loader	No	40			79.1	1100	0
Front End Loader	No	40			79.1	1200	0
Concrete Batch Plant	No	15	8	3		1300	0
Dump Truck	No	40			76.5	1400	0
Dump Truck	No	40			76.5	1500	0
Dump Truck	No	40			76.5	1600	0
Flat Bed Truck	No	40			74.3	1700	0
Pickup Truck	No	40			75	1800	0

				Results			
	Calculated	(dBA)			Noise Limits	(dBA)	
				Day		Evening	
Equipment	*Lmax	Leq		Lmax	Leq	Lmax	Leq
Dozer	61.7	7	57.7	N/A	N/A	N/A	N/A
Dozer	60.	l	56.1	N/A	N/A	N/A	N/A
Excavator	57.8	3	53.8	N/A	N/A	N/A	N/A
Grader	60.9	9	56.9	N/A	N/A	N/A	N/A
Front End Loader	54.0)	50.0	N/A	N/A	N/A	N/A
Front End Loader	53.	l	49.1	N/A	N/A	N/A	N/A
Front End Loader	52.3	3	48.3	N/A	N/A	N/A	N/A
Front End Loader	51.5	5	47.5	N/A	N/A	N/A	N/A
Concrete Batch Plant	54.7	7	46.5	N/A	N/A	N/A	N/A
Dump Truck	47.	5	43.5	N/A	N/A	N/A	N/A
Dump Truck	46.9	9	42.9	N/A	N/A	N/A	N/A
Dump Truck	46.3	3	42.4	N/A	N/A	N/A	N/A
Flat Bed Truck	43.6	3	39.6	N/A	N/A	N/A	N/A
Pickup Truck	43.9	9	39.9	N/A	N/A	N/A	N/A
Total	62	2	63	N/A	N/A	N/A	N/A

^{*}Calculated Lmax is the Loudest value.

APPENDIX E

FHWA Model Existing With Project Traffic Noise Contour Calculations

Scenario: EXISTING WITH ROUTE 1A PROJECT CONDITIONS

	>	'ehicle Mix	1 (Arterials	s)	Vehicle	Vehicle Mix 2 (Arterial With Project)	erial With	Project)	Ve	/ehicle Mix 3 (SR-210)	3 (SR-210	<u>(</u>
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles 6	%05.6	, 12.90%	%09.6	92.00%	64.86%	11.99%	8.95%	82.77%	63.28%	12.97% 15.17% 🤅	15.17%	91.42%
Medium Trucks 1.44%		%90.0	1.50%	3.00%	1.34%	%90.0	1.39%	2.79%	1.50%	0.27%	0.76%	2.53%
Heavy Trucks 2.40% 0.10%	2.40%	0.10%	2.50%	2.00%	9.20%	0.09%	2.32%	11.62%	3.31%	0.32%	2.42%	6.05%

Major	to	et)	CNEL	17	36	28	168	
sification:	Distance	our (in fe	Ldn	16	32	75	161	
oadway Clas	Centerline	Noise Cont		70 dBA:	65 dBA:	60 dBA:	55 dBA:	
RC			CNEL	56.44	41.22	57.82	60.25	
	st: 71.39		Ldn	55.81	41.18	57.80	29.98	
x: 2	quiv. Lane Dis	loise Levels	Leq Night	47.37	35.03	50.59	52.37	
ehicle Mix		tigated N	eq Eve.	53.43	25.82	41.39	53.70	
	TERLINE	Unmi	eq Day L	54.74	33.60	55.32	28.07	
ed: 30 MPH	FROM CEN		Leq Peak 1	57.41	53.13	66.48	67.16	
/ehicle Spe	. 75 FEET I		Finite Adj	-1.20	-1.20	-1.20	Total:	
/	ETERS AT	nstments	Dist Adj.	-2.42	-2.42	-2.42		
: Vehicles	SE PARAM	Noise Adjı	raffic Adj.	-1.48	-16.36	-10.16		
raffic: 8442	SION		REMELT	62.51	73.11	80.26		
Average Daily T			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks		
	Average Daily Traffic: 8442 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 2	Vehicle Mix: 2 ERLINE (Equiv. Lane Dist: 71.39 ft)	Vehicle Speed: 30 MPH Vehicle Mix: 2 AETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 71.39 ft) justments Unmitigated Noise Levels	raffic: 8442 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 2 NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 71.39 ft) Noise Adjustments Unmitigated Noise Levels REMEL Traffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night Ldn CNEI	raffic: 8442 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 2 F NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 71.39 ft) Noise Adjustments Unmitigated Noise Levels REMEL Traffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night Ldn CNEl 62.51 -1.48 -2.42 -1.20 57.41 54.74 53.43 47.37 55.81 56.44	raffic: 8442 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 2 FE NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 71.39 ft) Noise Adjustments Unmitigated Noise Levels REMEL Traffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night Ldn CNEI 62.51 -1.48 -2.42 -1.20 57.41 54.74 53.43 47.37 55.81 56.4 73.11 -16.36 -2.42 -1.20 53.13 33.60 25.82 35.03 41.18 41.23	raffic: 8442 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 2 FE NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 71.39 ft) REMEL Traffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night Ldn CNEI 62.51 -1.48 -2.42 -1.20 57.41 54.74 53.43 47.37 55.81 56.4 73.11 -16.36 -2.42 -1.20 53.13 33.60 25.82 35.03 41.18 41.23 80.26 -10.16 -2.42 -1.20 66.48 55.32 41.39 50.59 57.80 57.83	raffic: 8442 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 2 F NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 71.39 ft) Noise Adjustments Unmitigated Noise Levels Noise Adjustments Unmitigated Noise Levels Noise Adjustments Leq Peak Leq Day Leq Eve. Leq Night Ldn CNEI 62.51 -1.48 -2.42 -1.20 57.41 54.74 53.43 47.37 55.81 56.44 73.11 -16.36 -2.42 -1.20 53.13 33.60 25.82 35.03 41.18 41.25 80.26 -10.16 -2.42 -1.20 66.48 55.32 41.39 50.59 57.85 80.26 -10.16 -2.42 -1.20 58.07 53.70 52.37 59.98 60.29

	Major	to	et)	CNEL	15	33	7	152
	sification:	Distance	our (in fe	Ldn CNEL	14	3	29	144
	Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		57.19 70 dBA:	41.09 65 dBA:	55.76 60 dBA:	59.61 55 dBA:
	Ä	ft)		Ldn CNEL	57.19			
ace		st: 71.39		Ldn	26.56	41.06	55.74	59.25
South of Berkshire Place	ix: 2	(Equiv. Lane Dist: 71.39 ft)	Unmitigated Noise Levels	Leg Night	48.13	34.90	48.54	51.44
South of	Vehicle Mix: 2		itigated I	Led Eve.	54.18	25.69	39.33	54.33
	,	ITERLINE	Unm	Led Day	55.49	33.47	53.26	57.55
Segment:	Vehicle Speed: 35 MPH	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE		REMEL Traffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	58.16	53.00	64.42	62.29
	/ehicle Sp€	75 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:
		ETERS AT	ustments	Dist Adj.	-2.42	-2.42	-2.42	
Drive	Vehicles	E PARAM	Noise Adjustmer	affic Adj.	-3.32	-18.20	-12.01	
Oak Grove	raffic: 6442	SION		REMELTR	65.11	74.83	80.05	
Road Name: Oak Grove Drive	Average Daily Traffic: 6442 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

	Arterial	to	et)	CNEL	19	40	86	186
	Primary	Distance	our (in fe	Ldn	17	38	8	175
	Roadway Classification: Primary Arterial	Centerline Distance to	Noise Contour (in feet)		58.13 70 dBA:	41.26 65 dBA:	60 dBA:	59.70 60.10 55 dBA:
	Idway C	ft)		Ldn CNEL	58.13		55.57	60.10
verpass	Roa	st: 79.53			27.50	41.23	55.54	59.70
East of Foothill Fwy Overpass	x: 2	(Equiv. Lane Dist: 79.53 ft)	Unmitigated Noise Levels	Led Night	49.06	35.07	48.34	51.82
East of Fo	Vehicle Mix: 2		itigated N	ed Eve.	55.12	25.87	39.13	55.23
		TERLINE	Unm	Led Day I	56.43	33.65	53.07	58.09
Segment:	Vehicle Speed: 40 MPH	FROM CEN		Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	59.10	53.17	64.22	65.64
	/ehicle Spe	. 85 FEET I		Finite Adj	-1.20	-1.20	-1.20	Total:
		NOISE PARAMETERS AT 85 FEET FROM CENTERLINE	ustments	Dist Adj.	-3.13	-3.13	-3.13	
e Drive	Vehicles	SE PARAM	Noise Adjustments	REMEL Traffic Adj. Dist A	-3.93	-18.81	-12.61	
Oak Grove	raffic: 6400	SION		REMELT	92'29	76.31	81.16	
Road Name: Oak Grove Drive	Average Daily Traffic: 6400 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	-

Scenario: EXISTING WITH ROUTE 1A PROJECT CONDITIONS

ᆃᆃᆒᇝᆙᄳ	voerage Daily Traffic: 21700 Vehicles NOISE PARAMETERS A Noise Adjustments	I⊢I I	Segment: Vehicle Speed: 35 MPH T 65 FEET FROM CENTE	ent: 'H VTERLINE Unm	North of I-210 Vehicle Mix: 2 E (Equiv.	North of I-210 Northbound Ramps Vehicle Mix: 2 Road LINE (Equiv. Lane Dist: 57.66 ft) Jnmitigated Noise Levels	ound R	nps badway ft)	amps Roadway Classification: Minor Arterial 6 tt)	Minor A stance	rterial to et)
REMEL Traffic Adj. Dist Adj.		Finite Adj	Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	Leq Day	Led Eve.	Leq Night	Ldn	Ldn CNEL		Ldn	CNEL
1.95 -1.03		-1.20	64.83	62.16	60.84	54.79	63.23		63.86 70 dBA:	32	37
-12.93 -1.03		-1.20	59.67	40.14	32.36	41.57	47.72	47.75	65 dBA:	22	79
-6.73 -1.03		-1.20	71.08	59.93	45.99	55.20	62.40	62.43	60 dBA:	161	170
		Total:	72.25	64.21	60'09	58.11	65.91	66.27	55 dBA:	347	367

Scenario: EXISTING WITH PROJECT ROUTE 1B CONDITIONS

Project: Devil's Gate Reservoir Site Conditions: Soft

						Major	to	et)	CNEL	16	32	22	162			Major	to	et)	CNEL	15	31	29	145		\rterial	\$	et)	CNEL	19	45	06	195
ŧ	Daily	91.42%	2.53%	6.05%		sification:	Distance	our (in fe	Ldn	16	34	72	155			sification:	Distance	our (in fe	Ldn	14	30	9	137		Primary /	Distance	our (in fe	Ldn	18	39	82	183
3 (SR-210)	Night	15.17% 9	0.76%	2.42% 6		Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		70 dBA:	65 dBA:	60 dBA:	55 dBA:			Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		70 dBA:	65 dBA:	60 dBA:	55 dBA:		Roadway Classification: Primary Arterial	Centerline Distance to	Noise Contour (in feet)		70 dBA:	65 dBA:	60 dBA:	55 dBA:
Vehicle Mix	Evenin	12.97%	0.27%	0.32%	sd	Ro			CNEL	56.21	40.99	57.59	60.02		1	Ro			CNEL	56.89	40.78	55.46	59.30		dway Cla			CNEL	58.42	41.55	55.86	60.39
Veh	Day	63.28%	1.50%	3.31%	und Ram		st: 71.39 ft)		Ldn	25.58	40.95	57.56	59.75	a)		st: 71.39 ft)		Ldn	56.26	40.75	55.43	58.94	verpass	Roa	st: 79.53 ft)		Ldn	57.79	41.52	55.83	59.99
Project)	Daily	85.77%	2.79%	11.62%	East of I-210 Northbound Ramps	ix: 2	Equiv. Lane Dist:	Unmitigated Noise Levels	Leq Night	47.14	34.80	50.36	52.13	South of Berkshire Place		x: 2	Equiv. Lane Dist:	Unmitigated Noise Levels	Leg Night	47.82	34.59	48.23	51.13	East of Foothill Fwy Overpass	x: 2	Equiv. Lane Dist:	Unmitigated Noise Levels	Leq Night	49.35	35.36	48.63	52.11
rial With I	Night	8.92%	1.39%	2.32%	east of I-	Vehicle Mix: 2	E)	itigated №	Led Eve.	53.19	25.59	41.15	53.46	of the of		Vehicle Mix: 2	E)	itigated I	Led Eve.	53.87	25.38	39.02	54.02	ast of Fo	Vehicle Mix: 2) (E	itigated №	Led Eve.	55.41	26.16	39.42	55.52
Vehicle Mix 2 (Arterial With Project)	Evening	11.99%	%90.0	%60.0			FROM CENTERLINE	Unmi	Led Day L	54.50	33.37	55.09	57.83		:		NTERLINE	Unmi	Led Day L	55.18	33.17	52.96	57.24			NTERLINE	Unmi	Led Day L	56.72	33.94	53.36	58.38
Vehicle	Day	64.86%	1.34%	9.20%	Segment:	ed: 30 MF	-ROM CE		Leg Peak	57.18	52.90	66.24	66.93	Segment.		ed: 35 MF	-ROM CEI		Leg Peak	57.86	52.69	64.11	65.28	Segment:	ed: 40 MF	FROM CE		Leq Peak	29.39	53.46	64.51	65.93
<u>.</u>	Daily	92.00%	3.00%	2.00%		Vehicle Speed: 30 MPH	AT 75 FEET F		Finite Adj	-1.20	-1.20	-1.20	Total:			Vehicle Speed: 35 MPH	AT 75 FEET FROM CENTERLINE		Finite Adj	-1.20	-1.20	-1.20	Total:		Vehicle Speed: 40 MPH	AT 85 FEET FROM CENTERLINE		Finite Adj	-1.20	-1.20	-1.20	Total:
Vehicle Mix 1 (Arterials)	Night	%09.6	1.50%	2.50%		,		ustments	Dist Adj.	-2.42	-2.42	-2.42			•			ustments	Dist Adj.	-2.42	-2.42	-2.42					ustments	Dist Adj.	-3.13	-3.13	-3.13	
ehicle Mix	Evening	12.90%	%90.0	0.10%	Place	Vehicles	NOISE PARAMETERS	Noise Adjustment	raffic Adj.	-1.71	-16.59	-10.40		o Drive		Vehicles (NOISE PARAMETERS	Noise Adjustment	raffic Adj.	-3.63	-18.51	-12.31		e Drive	: Vehicles	NOISE PARAMETERS	Noise Adjustments	raffic Adj.	-3.64	-18.52	-12.32	
>	Day	%05.69	1.44%	2.40%	Berkshire Place	raffic: 800C	SION		REMEL Traffic Adj.	62.51	73.11	80.26		Oak Grove Drive		raffic: 6000	SION		REMEL Traffic Adj	65.11	74.83	80.05		Oak Grove Drive	raffic: 6842	SION		REMELTraffic Adj	98'29	76.31	81.16	
	Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	Road Name:	Average Daily Traffic: 8000 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks		Road Name.		Average Daily Traffic: 6000 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks		Road Name:	Average Daily Traffic: 6842 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

Scenario: EXISTING WITH PROJECT ROUTE 1B CONDITIONS

hbound Ramps Roadway Classification: ↑ Dist: 57.66 ft) Centerline Dist Ldn CNEL 63.32 63.95 70 dBA: 47.81 47.84 65 dBA: 62.49 62.52 60 dBA: 66.00 66.36 55 dBA:	ce to	feet)	CNEL	37	80	173	372
Dist: 57.6 Dist: 57.6	n: Minc Distan	our (in	Ldn	32	9/	163	352
Dist: 57.6 Dist: 57.6	Classificatio Centerline I	Noise Cont		70 dBA:	65 dBA:	60 dBA:	55 dBA:
Dist: 57.6 Dist: 57.6	adway ft)		CNEL	63.95	47.84	62.52	96.39
ane Dis	Rc st: 57.66		Ldn	63.32	47.81	62.49	00'99
1x: 2 Yoise L Led Ni 54 41 55 55	ix: 2 quiv. Lane Dis	Inmitigated Noise Levels	Led Night	54.88	41.65	55.29	58.20
North of I-210 Vehicle Mix: 2 (Equiv. itigated Noise Leq Eve. Leq 60.93 32.45 46.08	/ehicle Mi (Ed	itigated №	ed Eve.	60.93	32.45	46.08	61.08
nt: 1 1	TERLINE	Unm	Led Day I	62.24	40.23	60.02	64.30
Segment: North of I-210 North Vehicle Speed: 35 MPH Vehicle Mix: 2 AT 65 FEET FROM CENTERLINE (Equiv. Lane ts Unmitigated Noise Leve ij. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night i3 -1.20 64.92 62.24 60.93 54.88 i3 -1.20 71.17 60.02 46.08 55.29 Total: 72.34 64.30 64.08 55.29	ed: 35 MPH FROM CEN		Leq Peak	64.92	59.75	71.17	72.34
Vehicle Spe For FEET F Finite Adj -1.20 -1.20 Total:	Vehicle Spe r 65 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:
ETERS State Lice 1.0 1.0 1.0	ETERS	stments	Dist Adj.	-1.03	-1.03	-1.03	
Windsor Avenue affic: 22142 Vehicles NOISE PARAMETERS / Noise Adjustment REMEL Traffic Adj. Dist Adj 65.11 2.04 -1.03 74.83 -12.84 -1.03 80.05 -6.64 -1.03	2 Vehicles SE PARAM	Noise Adju	affic Adj.	2.04	-12.84	-6.64	
Windsor A raffic: 2214. NOIS NOIS REMEL Tr 65.11 74.83 80.05	raffic: 2214 NOIS		REMELTr	65.11	74.83	80.05	
Road Name:Windsor AvenueAverage Daily Traffic: 22142 VehiclesNOISE PARAMIVehicle TypeREMEL Traffic Adj.Automobiles65.112.04Medium Trucks74.83-12.84Heavy Trucks80.05-6.64	Average Daily T		Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	-

Scenario: EXISTING WITH PROJECT ROUTE 1C CONDITIONS

Project: Devil's Gate Reservoir Site Conditions: Soft

		Vehicle Mix	1 (Arterials	(8)	Vehicle	Vehicle Mix 2 (Arterial With Project)	erial With	Project)	Ve	/ehicle Mix 3 (SR-210)	3 (SR-210	<u> </u>
Vehicle Type	Jay	Evening	-	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Vight Daily
utomobiles	%05.69	69.50% 12.90%	%09.6	92.00%	64.86%	11.99%	8.95%	82.77%	63.28%	12.97%	12.97% 15.17%	91.42%
ucks	1.44% ledium Trucks	%90.0	1.50%	3.00%	1.34%	%90.0	1.39%	2.79%	1.50%	0.27%	0.76%	2.53%
cks	leavy Trucks 9.00% 0.10%	0.10%	2.50%	2.00%	9.20%	0.09%	2.32%	11.62%	3.31%	0.32%	2.42%	6.05%

	Major	0	it)	CNEL	16	36	11	165
	sification:	Jistance t	our (in fee	Ldn (16	34	73	158
	Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		56.33 70 dBA:	41.07 41.10 65 dBA:	57.71 60 dBA:	60.14 55 dBA:
S	Ä			Ldn CNEL	56.33	41.10	57.71	
ind Ramp		st: 71.39 f		Ldn	25.70	41.07	57.68	29.87
East of I-210 Northbound Ramps	x: 2	(Equiv. Lane Dist: 71.39 ft)	Inmitigated Noise Levels	Leq Night	47.26	34.92	50.48	52.25
ast of I-2	Vehicle Mix: 2	E(tigated N	eq Eve.	53.31	25.71	41.27	53.58
		TERLINE	Unmi	Leq Day L	54.62	33.49	55.21	57.95
Segment:	Vehicle Speed: 30 MPH	AT 75 FEET FROM CENTERLINE		i. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	57.30	53.02	96.39	67.04
	Vehicle Spe	75 FEET F		Finite Adj	-1.20	-1.20	-1.20	Total:
		ETERS AT	ustments	Dist Adj.	-2.42	-2.42	-2.42	
Place	l Vehicles	NOISE PARAMETERS	Noise Adjustment	REMELTraffic Adj. Dist Adj	-1.59	-16.48	-10.28	
Berkshire Place	raffic: 822'	ION		REMELT	62.51	73.11	80.26	
Road Name:	Average Daily Traffic: 8221 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	-

ı: Major	to	eet)	CNEL	15	32	69	149
ssificatior	Distance	our (in f	Ldn	14	30	65	141
Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		57.04 70 dBA:	40.94 65 dBA:	60 dBA:	55 dBA:
Ä	ft)		Ldn CNEL	57.04		55.61	59.46
	ist: 71.39		Ldn	56.41	40.90	55.59	59.10
ix: 2	(Equiv. Lane Dist: 71.39 ft)	Unmitigated Noise Levels	Leq Night	47.97	34.75	48.38	51.29
Vehicle Mix: 2		itigated №	Led Eve.	54.03	25.54	39.18	54.17
	ITERLINE	Unm	Leq Day I	55.34	33.32	53.11	57.40
Vehicle Speed: 35 MPH	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE		1dj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	58.01	52.85	64.27	65.44
Vehicle Spe	75 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:
	ETERS A1	ustments	Dist Adj.	-2.42	-2.42	-2.42	
Vehicles	E PARAM	Noise Adjustmei	REMEL Traffic Adj. Dist A	-3.47	-18.36	-12.16	
affic: 6221	SION		REMELTr	65.11	74.83	80.05	
Average Daily Traffic: 6221 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	•

South of Berkshire Place

Segment:

Oak Grove Drive

Road Name:

Road Name: Oak Grove Drive	Oak Grov	ve Drive			Segment:		East of Fo	East of Foothill Fwy Overpass	erpass				
Average Daily Traffic: 6621 Vehicles	raffic: 662	1 Vehicles		Vehicle Sp.	Vehicle Speed: 40 MPH	Į	Vehicle Mix: 2	ix: 2	Road	dway Cl	Roadway Classification: Primary Arterial	rimary	Arterial
	ÍÓN	NOISE PARAMETERS	1ETERS A	T 85 FEET	AT 85 FEET FROM CENTERLINE	NTERLINE		(Equiv. Lane Dist: 79.53 ft)	79.53		Centerline Distance to	istance	ţ
		Noise Adjustment	ustments			Unm	itigated l	Jnmitigated Noise Levels			Noise Contour (in feet)	ur (in fe	et)
Vehicle Type	REMELT	REMELTraffic Adj. Dist Adj	Dist Adj.	Finite Adj	Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	Led Day	Led Eve.	Leg Night	Ldn CNEI	CNEL		Ldn	CNEL
Automobiles	92'29	-3.78	-3.13	-1.20	28.25	26.58	55.27	49.21	27.65	58.28	58.28 70 dBA:	18	19
Medium Trucks 76.31	76.31	-18.66	-3.13	-1.20	53.32	33.79	26.01	35.22	41.37		41.41 65 dBA:	33	4
Heavy Trucks	81.16	-12.47	-3.13	-1.20	64.37	53.21	39.28	48.48	55.69	55.71	55.71 60 dBA:	83	88
				Total:	62.79	58.24	55.38	51.97	59.85	60.25	60.25 55 dBA:	179	190

Scenario: EXISTING WITH PROJECT ROUTE 1C CONDITIONS

		Arterial	to	et)	CNEL	37	80	171	369
:		n: Minor,	Distance	our (in fe	Ldn	32	75	162	349
one conditions. con		Roadway Classification: Minor Arterial	Centerline Distance to	Noise Contour (in feet)		63.90 70 dBA:	47.80 65 dBA:	60 dBA:	66.32 55 dBA:
	sdu	padway	ft)		Ldn CNEL	63.90		62.47	66.32
	ound Ran	Ä	st: 57.66		Ldn	63.27	47.76	62.45	96.39
	North of I-210 Northbound Ramps	ix: 2	(Equiv. Lane Dist: 57.66 ft)	nmitigated Noise Levels	Led Night	54.83	41.61	55.24	58.15
	North of I	Vehicle Mix: 2		itigated N	Led Eve.	60.89	32.40	46.04	61.03
		I	JTERLINE	Unm	Led Day	62.20	40.18	59.97	64.26
	Segment:	Vehicle Speed: 35 MPH	AT 65 FEET FROM CENTERLINE		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	64.87	59.71	71.13	72.30
		/ehicle Spe	. 65 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:
			ETERS AT	stments		-1.03	-1.03	-1.03	
	venue	1 Vehicles	NOISE PARAMETERS	Noise Adjustmen	affic Adj.	2.00	-12.89	-6.69	
	Windsor A	raffic: 2192	SION		REMELTraffic Adj. Dist Adj	65.11	74.83	80.05	
	Road Name: Windsor Avenue	Average Daily Traffic: 21921 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

Scenario: EXISTING WITH PROJECT ROUTE 1D CONDITIONS

Project: Devil's Gate Reservoir Site Conditions: Soft

		Vehicle Mix	1 (Arterials	s)	Vehicle	Vehicle Mix 2 (Arterial With Project)	rial With	Project)	Ve	Vehicle Mix 3 (SR-210)	3 (SR-210	<u> </u>
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
utomobiles	%05.69	12.90%	%09.6	92.00%	64.86%	11.99%	8.95%	85.77%	63.28%	6 12.97% 15.17%	15.17%	91.42%
Medium Trucks 1.44%	1.44%	%90.0	1.50%	3.00%	1.34%	%90.0	1.39%	2.79%	1.50%	0.27% 0.76%	0.76%	2.53%
leavy Trucks 2.40%	2.40%	0.10%	2.50%	2.00%	9.20%	%60.0	2.32%	11.62%	3.31%	0.32%	2.42%	6.05%

	: Major	to	et)	CNEL	16	36	11	165
	sification	Distance	our (in fe	Ldn CNEL	16	34	73	158
	Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		55.70 56.33 70 dBA:	41.10 65 dBA:	57.71 60 dBA:	60.14 55 dBA:
SC	R			Ldn CNEL	56.33	41.10	57.71	
nd Ramp		t: 71.39		Ldn	25.70	41.07	57.68	29.87
East of I-210 Northbound Ramps	x: 2	(Equiv. Lane Dist: 71.39 ft)	Jumitigated Noise Levels	Led Night	47.26	34.92	50.48	52.25
ast of I-2	Vehicle Mix: 2	E(tigated N	ed Eve.	53.31	25.71	41.27	53.58
		ITERLINE	Unmi	Led Day L	54.62	33.49	55.21	57.95
Segment:	ed: 30 MPI	-ROM CEN		Leq Peak	57.30	53.02	96.39	67.04
	Vehicle Speed: 30 MPH	AT 75 FEET FROM CENTERLINE		. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	-1.20	-1.20	-1.20	Total:
	/	ETERS AT	ustments		-2.42	-2.42	-2.42	
Place	Vehicles	NOISE PARAMETERS	Noise Adjustment	REMEL Traffic Adj. Dist Ad	-1.59	-16.48	-10.28	
Berkshire	raffic: 8221	SION		REMELT	62.51	73.11	80.26	
Road Name: Berkshire Place	Average Daily Traffic: 8221 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	-

า: Major	to	eet)	Ldn CNEL	15	32	69	149
ssificatior	Distance	tour (in f	Ldn	14	30	65	141
Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		57.04 70 dBA:	40.94 65 dBA:	55.61 60 dBA:	55 dBA:
Ř			Ldn CNEL			55.61	59.46
	ist: 71.39		Ldn	56.41	40.90	55.59	59.10
x: 2	(Equiv. Lane Dist: 71.39 ft)	Unmitigated Noise Levels	Leq Night	47.97	34.75	48.38	51.29
Vehicle Mix: 2		itigated N	eq Eve.	54.03	25.54	39.18	54.17
	ITERLINE	Unm	Leq Day I	55.34	33.32	53.11	57.40
Vehicle Speed: 35 MPH	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE		Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	58.01	52.85	64.27	65.44
Vehicle Spo	75 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:
	ETERS A1	ustments	Dist Adj.	-2.42	-2.42	-2.42	
Vehicles	SE PARAM	Noise Adjustmer	REMEL Traffic Adj. Dist A	-3.47	-18.36	-12.16	
raffic: 6221	SION		REMELTr	65.11	74.83	80.05	
Average Daily Traffic: 6221 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	-

South of Berkshire Place

Segment:

Oak Grove Drive

Road Name:

	Arterial	to	et)	CNEL	19	4	88	190
	Primary /	Distance	our (in fe	Ldn	18	33	83	179
	Roadway Classification: Primary Arterial	Centerline Distance to	Noise Contour (in feet)		58.28 70 dBA:	41.41 65 dBA:	55.71 60 dBA:	60.25 55 dBA:
	dway Cl	ft)		Ldn CNEL	58.28	41.41	55.71	60.25
rerpass	Roa	: 79.53		Ldn	57.65	41.37	55.69	29.85
East of Foothill Fwy Overpass	x: 2	(Equiv. Lane Dist: 79.53 ft)	Jnmitigated Noise Levels	Leq Night	49.21	35.22	48.48	51.97
ast of Fc	Vehicle Mix: 2)E	igated N	eq Eve.	55.27	26.01	39.28	55.38
		JTERLINE	Unmit	Led Day L	56.58	33.79	53.21	58.24
Segment:	Vehicle Speed: 40 MPH	FROM CEN		Leg Peak	59.25	53.32	64.37	62.79
	Vehicle Spe	AT 85 FEET FROM CENTERLINE		Finite Adj	-1.20	-1.20	-1.20	Total:
		ETERS A ⁻	stments	Dist Adj.	-3.13	-3.13	-3.13	
e Drive	l Vehicles	NOISE PARAMETERS	Noise Adjustmen	REMELTraffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	-3.78	-18.66	-12.47	
Oak Grov	raffic: 6621	SION		REMELT	98'29	76.31	81.16	
Road Name: Oak Grove Drive	Average Daily Traffic: 6621 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

Scenario: EXISTING WITH PROJECT ROUTE 1D CONDITIONS

		Arterial	to	et)	CNEL	37	80	171	369
=		n: Minor /	Distance	our (in fe	Ldn	32	22	162	349
one conditions, con		Roadway Classification: Minor Arterial	Centerline Distance to	Noise Contour (in feet)		63.90 70 dBA:	47.80 65 dBA:	62.47 60 dBA:	66.32 55 dBA:
	sdu	adway	ft)		Ldn CNEL	63.90	47.80	62.47	66.32
	und Ram	R	st: 57.66		Ldn	63.27	47.76	62.45	96'59
	North of I-210 Northbound Ramps	x: 2	(Equiv. Lane Dist: 57.66 ft)	Jumitigated Noise Levels	Led Night	54.83	41.61	55.24	58.15
	lorth of I	/ehicle Mix: 2		tigated №	ed Eve.	60.89	32.40	46.04	61.03
			TERLINE	Unmi	Led Day L	62.20	40.18	59.97	64.26
	Segment:	Vehicle Speed: 35 MPH	AT 65 FEET FROM CENTERLINE		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	64.87	59.71	71.13	72.30
		Vehicle Spe	T 65 FEET F		Finite Adj	-1.20	-1.20	-1.20	Total:
			ETERS A	stments	Dist Adj.	-1.03	-1.03	-1.03	
	Avenue	21 Vehicles	NOISE PARAMETERS	Noise Adjustment	REMEL Traffic Adj. Dist Adj	2.00	-12.89	-6.69	
	Windsor	raffic: 219	ION		REMELI	65.11	74.83	80.05	
	Road Name: Windsor Avenue	Average Daily Traffic: 21921 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

Scenario: EXISTING WITH PROJECT ROUTE 1E CONDITIONS

Project: Devil's Gate Reservoir Site Conditions: Soft

		Vehicle Mix 1 (Arter	1 (Arterials)	s)	Vehicle	Vehicle Mix 2 (Arterial With Project)	rial With	Project)	Ve	hicle Mix	Vehicle Mix 3 (SR-210)	<u> </u>	
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily	
Automobiles	%05.69	12.90%	%09.6	92.00%	64.86%	11.99%	8.92%	85.77%	63.28%	12.97%	15.17%	91.42%	
Medium Trucks	1.44%	%90.0	1.50%	3.00%	1.34%	%90.0	1.39%	2.79%	1.50%	0.27%	0.76%	2.53%	
Heavy Trucks	2.40%	0.10%	2.50%	2.00%	9.20%	%60.0	2.32%	11.62%	3.31%	0.32%	2.42%	6.05%	
								[
Road Name:	Berkshire Place	e Place			Segment:		East of I-;	East of I-210 Northbound Ramps	ound Ran	sdu			
Average Daily Traffic: 8442 Vehicles	raffic: 844	2 Vehicles		Vehicle Sp	Vehicle Speed: 30 MPH		Vehicle Mix: 2	ix: 2		Rc	adway Cl	Roadway Classification: Major	Major
	ON	NOISE PARAMETERS		AT 75 FEET	FROM CENTERLINE	NTERLINE		(Equiv. Lane Dist:	Dist: 71.39 ft)		Centerlin	Centerline Distance to	to
		Noise Ad	Noise Adjustments			Unm	itigated №	Unmitigated Noise Levels	S		Noise Co	Noise Contour (in feet)	et)
Vehicle Type	REMEL 1	REMEL Traffic Adj.	Dist Adj.	Finite Adj	Leg Peak	Leq Peak Leq Day Leq Eve. Leq Night	Led Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-1.48	-2.42	-1.20	57.41	54.74	53.43	47.37	55.81	56.44	70 dBA:	16	17
Medium Trucks	73.11	-16.36	-2.42	-1.20	53.13	33.60	25.82	35.03	41.18	41.22	65 dBA:	35	36
Heavy Trucks	80.26	-10.16	-2.42	-1.20	66.48	55.32	41.39	50.59	57.80	57.82	60 dBA:	75	78
				Total:	67.16	58.07	53.70	52.37	29.98	60.25	55 dBA:	161	168
Road Name:	Oak Grove Drive	ve Drive			Segment:		South of	South of Berkshire Place	Jace				
Average Daily Traffic: 6442 Vehicles	raffic: 644	2 Vehicles		Vehicle Sp	Vehicle Speed: 35 MPH		Vehicle Mix: 2	ix: 2		Rc	adway Cl	Roadway Classification: Major	Major
	ON	NOISE PARAMETERS		AT 75 FEET FROM CENTERLINE	FROM CEI	NTERLINE		(Equiv. Lane Dist:	Jist: 71.39 ft)		Centerlin	Centerline Distance to	to
		Noise Ad	Noise Adjustments			Unm	itigated	Unmitigated Noise Levels	S S		Noise Co	Noise Contour (in feet)	et)
Vehicle Type	REMEL 1	REMEL Traffic Adj.	Dist Adj.	Finite Adj	Leg Peak	Leq Peak Leq Day Leq Eve. Leq Night	Led Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-3.32	-2.42	-1.20	58.16	55.49	54.18	48.13	56.56	57.19	70 dBA:	14	15
Medium Trucks	74.83	-18.20	-2.42	-1.20	53.00	33.47	25.69	34.90	41.06	41.09	65 dBA:	31	33
Heavy Trucks	80.05	-12.01	-2.42	-1.20	64.42	53.26	39.33	48.54	55.74	55.76	60 dBA:	29	7
				Total:	62.29	57.55	54.33	51.44	59.25	59.61	55 dBA:	144	152
Road Name:	Oak Grove Drive	ve Drive			Segment:		East of Fo	East of Foothill Fwy Overpass	Overpass				
Average Daily Traffic: 6400 Vehicles	raffic: 640	0 Vehicles		Vehicle Sp	Vehicle Speed: 40 MPH		Vehicle Mix: 2	ix: 2	Ro	adway Cl	assificatio	Roadway Classification: Primary Arterial	\rterial
			C C L H L .	- 1 1 1 0 1	1000		Ļ	-					

40 86 186

38 81 175

65 dBA: 60 dBA: 55 dBA:

41.23 55.54 **59.70**

41.26 55.57 **60.10**

35.07 48.34 **51.82**

> 39.13 **55.23**

> > 58.09

Total:

56.43 33.65 53.07

CNEL

Гd

17

70 dBA:

58.13

57.50

49.06

55.12 25.87

59.10 53.17 64.22 **65.64**

-1.20

.3.13 .3.13 .3.13

-3.93 -18.81 -12.61

67.36

Medium Trucks Heavy Trucks

76.31 81.16

Dist Adj. Finite Adj

REMEL Traffic Adj.

Vehicle Type Automobiles

Noise Adjustments

-1.20

CNEL

Гqи

(Equiv. Lane Dist: 79.53 ft)

NOISE PARAMETERS AT 85 FEET FROM CENTERLINE

Unmitigated Noise Levels

Leq Peak Leq Day Leq Eve. Leq Night

Centerline Distance to Noise Contour (in feet)

Scenario: EXISTING WITH PROJECT ROUTE 1E CONDITIONS

-	teri	0	t)	CNEL	37	79	170	367
	: Minor Al	Jistance t	our (in fee	(Ldn	32	22	161	347
	Roadway Classification: Minor Arterial	Centerline Distance to	Noise Contour (in feet)		63.86 70 dBA:	47.75 65 dBA:	62.43 60 dBA:	66.27 55 dBA:
sdu	adway			Ldn CNEL	63.86			66.27
und Ran	K	t: 57.66		Ldn	63.23	47.72	62.40	65.91
North of I-210 Northbound Ramps	x: 2	(Equiv. Lane Dist: 57.66 ft)	Unmitigated Noise Levels	Leq Night	54.79	41.57	55.20	58.11
orth of I	Venicle Mix: 2	(Ec	tigated N	ed Eve.	60.84	32.36	45.99	66.09
.::		ITERLINE	Unmi	Led Day L	62.16	40.14	59.93	64.21
Segment:	ed: 35 MPI	FROM CEN		Leg Peak	64.83	29.62	71.08	72.25
	Vehicle Speed: 35 MPH	AT 65 FEET FROM CENTERLINE		dj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	-1.20	-1.20	-1.20	Total:
			stments	Dist Adj.	-1.03	-1.03	-1.03	
venue) Vehicles	NOISE PARAMETERS	Noise Adjustmer	REMEL Traffic Adj. Dist A	1.95	-12.93	-6.73	
Windsor A	raffic: 2170(SION	1	REMELTR	65.11	74.83	80.05	
Road Name: Windsor Avenue	Average Daily Traffic: 21/00 Vehicles			Vehicle Type	Automobiles	Medium Trucks 74.83	Heavy Trucks	

Scenario: EXISTING WITH PROJECT ROUTE 1F CONDITIONS

Project: Devil's Gate Reservoir Site Conditions: Soft

	Major	0	Ĵ	CNEL	16	32	75	162
	sification:	Jistance t	our (in fee	Ldn (16	34	75	155
	Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		56.21 70 dBA:	40.99 65 dBA:	57.59 60 dBA:	60.02 55 dBA:
S	Ä			Ldn CNEL	56.21	40.99	57.59	60.02
ind Ramp		it: 71.39 f		Ldn	25.58	40.95	57.56	59.75
East of I-210 Northbound Ramps	x: 2	(Equiv. Lane Dist: 71.39 ft)	Jumitigated Noise Levels	Leq Night	47.14	34.80	50.36	52.13
ast of I-2	Vehicle Mix: 2	E(igated N	ed Eve.	53.19	25.59	41.15	53.46
		TERLINE	Unmit	Leq Day L	54.50	33.37	55.09	57.83
Segment:	ed: 30 MPF	ROM CEN		Leg Peak	57.18	52.90	66.24	66.93
	Vehicle Speed: 30 MPH	AT 75 FEET FROM CENTERLINE		REMELTraffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	-1.20	-1.20	-1.20	Total:
		IETERS AT	ustments	Dist Adj.	-2.42	-2.42	-2.42	
Place	Vehicles	NOISE PARAMETERS	Noise Adjustment	raffic Adj.	-1.71	-16.59	-10.40	
Berkshire	raffic: 8000	SION		REMELT	62.51	73.11	80.26	
Road Name: Berkshire Place	Average Daily Traffic: 8000 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

	Major	to	et)	CNEL	15	31	29	145
	sification:	Distance	our (in fe	Ldn	14	30	64	137
	Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		56.89 70 dBA:	40.78 65 dBA:	55.46 60 dBA:	59.30 55 dBA:
	Ä	ft)		Ldn CNEL	56.89	40.78		
ace		st: 71.39		Ldn	56.26	40.75	55.43	58.94
South of Berkshire Place	ix: 2	(Equiv. Lane Dist: 71.39 ft)	Unmitigated Noise Levels	Leq Night	47.82	34.59	48.23	51.13
South of	Vehicle Mix: 2		itigated №	Led Eve.	53.87	25.38	39.02	54.02
		JTERLINE	Unm	Led Day	55.18	33.17	52.96	57.24
Segment:	Vehicle Speed: 35 MPH	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE		Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	57.86	52.69	64.11	65.28
	Vehicle Spe	I 75 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:
		IETERS AT	ustments	Dist Adj.	-2.42	-2.42	-2.42	
e Drive	Vehicles	SE PARAM	Noise Adjustmei	REMELTraffic Adj. Dist A	-3.63	-18.51	-12.31	
Oak Grove	raffic: 6000	SION		REMELTr	65.11	74.83	80.05	
Road Name: Oak Grove Drive	Average Daily Traffic: 6000 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

	Arterial	to	et)	CNEL	19	45	6	195
	Primary	Distance	our (in fe	Ldn	18	33	82	183
	Roadway Classification: Primary Arterial	Centerline Distance to	Noise Contour (in feet)		57.79 58.42 70 dBA:	41.55 65 dBA:	60 dBA:	60.39 55 dBA:
	Idway Cl	ft)		Ldn CNEL	58.42		55.86	
verpass	Ros	t: 79.53		Ldn	57.79	41.52	55.83	59.99
East of Foothill Fwy Overpass	x: 2	(Equiv. Lane Dist: 79.53 ft)	Unmitigated Noise Levels	Led Night	49.35	35.36	48.63	52.11
ast of Fo	Vehicle Mix: 2		itigated №	eq Eve.	55.41	26.16	39.42	55.52
		TERLINE	Unmi	Led Day 1	56.72	33.94	53.36	58.38
Segment:	Vehicle Speed: 40 MPH	NOISE PARAMETERS AT 85 FEET FROM CENTERLINE		Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	59.39	53.46	64.51	65.93
	Vehicle Spe	⁻ 85 FEET F		Finite Adj	-1.20	-1.20	-1.20	Total:
		ETERS AT	ustments	Dist Adj.	-3.13	-3.13	-3.13	
e Drive	Vehicles	SE PARAM	Noise Adjustments	REMEL Traffic Adj. Dist A	-3.64	-18.52	-12.32	
Oak Grove	raffic: 6842	SION		REMELT	92'29	76.31	81.16	
Road Name: Oak Grove Drive	Average Daily Traffic: 6842 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	-

Scenario: EXISTING WITH PROJECT ROUTE 1F CONDITIONS

	4rterial	to	et)	CNEL	37	80	173	372
	n: Minor /	Distance	our (in fe	Ldn	32	9/	163	352
	Roadway Classification: Minor Arterial	Centerline Distance to	Noise Contour (in feet)		63.95 70 dBA:	47.84 65 dBA:	60 dBA:	66.36 55 dBA:
sdu	adway	ft)		CNEL	63.95	47.84	62.52	96.39
ınd Ran	Ä	: 57.66		Ldn	63.32	47.81	62.49	00'99
North of I-210 Northbound Ramps	x: 2	(Equiv. Lane Dist: 57.66 ft)	Jnmitigated Noise Levels	Led Night	54.88	41.65	55.29	58.20
orth of I	/ehicle Mix: 2) (Ec	tigated N	ed Eve.	60.93	32.45	46.08	61.08
		ITERLINE	Unmi	Led Day L	62.24	40.23	60.02	64.30
Segment:	ed: 35 MPF	ROM CEN		Leg Peak	64.92	59.75	71.17	72.34
	/ehicle Speed: 35 MPH	AT 65 FEET FROM CENTERLINE		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	-1.20	-1.20	-1.20	Total:
		ETERS	stments	١.	-1.03	-1.03	-1.03	
venue	2 Vehicles	NOISE PARAMETERS	Noise Adjustments	REMELTraffic Adj. Dist Adj	2.04	-12.84	-6.64	
Windsor A	affic: 2214	SION		REMELTr	65.11	74.83	80.05	
Road Name: Windsor Avenue	Average Daily Traffic: 22142 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	•

Scenario: EXISTING WITH PROJECT ROUTE 1G CONDITIONS

		Vehicle Mix	1 (Arterials)	s)	Vehicle	Vehicle Mix 2 (Arterial With Project)	erial With	Project)	Ve	hicle Mix	/ehicle Mix 3 (SR-210)	<u></u>
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
utomobiles	%05.69	69.50% 12.90%	%09.6	92.00%	64.86%	11.99%	8.92%	82.77%	63.28%	12.97%	12.97% 15.17% 9	91.42%
Aedium Trucks 1.44% 0.06%	1.44%	%90.0	1.50%	3.00%	1.34%	%90.0	1.39%	2.79%	1.50%	0.27%	0.76%	2.53%
leavy Trucks 2.40% 0.10%	2.40%	0.10%	2.50%	2.00%	9.20%	%60.0	2.32%	11.62%	3.31%	0.32%	2.42%	6.05%

Road Name: Berkshire Place	Berkshire	Place		-	Segment:	יי	East of I-	East of I-210 Northbound Ramps	ınd Ramp	•		•	:
Average Daily Traffic: 8221 Vehicles	raffic: 8221	Vehicles		Vehicle Sp	Vehicle Speed: 30 MPH		Vehicle Mix: 2	x: 2		RC	≺oadway Classification: Major	ification	Major
	SION	SE PARAM	IETERS AT	I 75 FEET	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE	NTERLINE		(Equiv. Lane Dist: 71.39 ft)	st: 71.39	ft)	Centerline Distance to	istance	to
	_	Noise Adjustmen	ustments			Unm	itigated №	Jumitigated Noise Levels			Noise Contour (in feet)	ur (in fe	et)
Vehicle Type	REMELTr	affic Adj.	Dist Adj.	Finite Adj	REMELTraffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	Led Day	Led Eve.	Leq Night	Ldn	Ldn CNEL		Ldn	CNEL
Automobiles	62.51	-1.59	-2.42	-1.20	57.30	54.62	53.31	47.26	25.70	56.33	56.33 70 dBA:	16	16
Medium Trucks 73.11	73.11	-16.48	-2.42	-1.20	53.02	33.49	25.71	34.92	41.07	41.10	41.10 65 dBA:	34	36
Heavy Trucks	80.26	-10.28	-2.42	-1.20	66.36	55.21	41.27	50.48	57.68	57.71	57.71 60 dBA:	73	1
				Total:	67.04	57.95	53.58	52.25	29.87	60.14	60.14 55 dBA:	158	165

	: Major	to	et)	Ldn CNEL	15	35	69	149							
	sification	Distance	our (in fe	Ldn	14	30	65	141							
	Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		56.41 57.04 70 dBA:	40.94 65 dBA:	55.61 60 dBA:	59.46 55 dBA:							
	ď	ft)		Ldn CNEL	57.04	40.94	55.61								
lace		ist: 71.39		Ldn	56.41	40.90	55.59	59.10							
South of Berkshire Place	x: 2	(Equiv. Lane Dist: 71.39 ft)	Unmitigated Noise Levels	Leq Night	47.97	34.75	48.38	51.29							
outh of	/ehicle Mix: 2	E)	tigated №	eq Eve.	54.03	25.54	39.18	54.17							
		TERLINE	Unmi	Led Day L	55.34	33.32	53.11	57.40							
Segment:	Vehicle Speed: 35 MPH	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE		REMEL Traffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	58.01	52.85	64.27	65.44							
	Vehicle Spe	75 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:							
		ETERS AT	1ETERS A	JETERS A	METERS AT	1ETERS AT	IETERS AT	ETERS AT	ETERS AT	IETERS AT ustments	Dist Adj.	-2.42	-2.42	-2.42	
e Drive	Vehicles	SE PARAM	Noise Adjustmen	raffic Adj.	-3.47	-18.36	-12.16								
Oak Grov	raffic: 6221	SION		REMELTI	65.11	74.83	80.05								
Road Name: Oak Grove Drive	Average Daily Traffic: 6221 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks								

Scenario: EXISTING WITH PROJECT ROUTE 1G CONDITIONS

		\rterial	to	et)	CNEL	37	80	171	369																				
:		n: Minor 4	Distance	our (in fe	Ldn	32	75	162	349																				
		Classification: Minor Arterial	Centerline Distance to	Noise Contour (in feet)		63.90 70 dBA:	47.80 65 dBA:	60 dBA:	66.32 55 dBA:																				
)	sdu	Roadway (ft)		Ldn CNEL	63.90	47.80	62.47	66.32																				
	und Ran	ĕ	: 57.66		Ldn	63.27	47.76	62.45	96'59																				
	North of I-210 Northbound Ramps	x: 2	(Equiv. Lane Dist: 57.66 ft)	loise Levels	Leq Night	54.83	41.61	55.24	58.15																				
	lorth of I-	/ehicle Mix: 2) (Ec	Unmitigated Noise Levels	ed Eve.	60.89	32.40	46.04	61.03																				
			TERLINE		Led Day L	62.20	40.18	29.97	64.26																				
	Segment:	Vehicle Speed: 35 MPH	AT 65 FEET FROM CENTERLINE	FROM CEN		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	64.87	59.71	71.13	72.30																			
		Vehicle Spe	- 65 FEET I		Finite Adj	-1.20	-1.20	-1.20	Total:																				
			NOISE PARAMETERS AT	E PARAMETERS AT	E PARAMETERS AT	ETERS	ETERS	ETERS	IETERS AT	ETERS AT	ETERS A1	ETERS AT	ETERS AT	ETERS AT	ETERS AT	ETERS AT	IETERS AT	1 ETERS A1	ETERS AT	ustments	Dist Adj.	-1.03	-1.03	-1.03					
	Avenue	1 Vehicles						Noise Adjustment	REMEL Traffic Adj. Dist Adj.	2.00	-12.89	-6.69																	
	Windsor /	raffic: 2192	SION		REMELT	65.11	74.83	80.05																					
	Road Name: Windsor Avenue	Average Daily Traffic: 21921 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks																					

Scenario: EXISTING WITH PROJECT ROUTE 1H CONDITIONS

Project: Devil's Gate Reservoir Site Conditions: Soft

		Vehicle Mix 1 (Arter	1 (Arterials)	s)	Vehicle	Vehicle Mix 2 (Arterial With Project)	erial With I	Project)	Ve	hicle Mix	Vehicle Mix 3 (SR-210)	<u> </u>	
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily	
Automobiles	%05.69	12.90%	%09.6	92.00%	64.86%	11.99%	8.92%	82.77%	63.28%	12.97%	15.17%	91.42%	
Medium Trucks	1.44%	%90.0	1.50%	3.00%	1.34%	%90.0	1.39%	2.79%	1.50%	0.27%	0.76%	2.53%	
Heavy Trucks	2.40%	0.10%	2.50%	2.00%	9.20%	%60.0	2.32%	11.62%	3.31%	0.32%	2.42%	6.05%	
Road Name:	Berkshire Place	e Place			Segment:		East of I-;	East of I-210 Northbound Ramps	ound Ran	sdu			
Average Daily Traffic: 8221 Vehicles	raffic: 822	1 Vehicles		Vehicle Sp	Vehicle Speed: 30 MPH		Vehicle Mix: 2	ix: 2		R	adway Cl	Roadway Classification: Major	: Major
	ON	NOISE PARAMETERS		AT 75 FEET	FROM CENTERLINE	NTERLINE		(Equiv. Lane Dist:	Jist: 71.39 ft)		Centerlin	Centerline Distance to	to
		Noise Adj	Noise Adjustments			Unm	itigated №	Unmitigated Noise Levels	S		Noise Co	Noise Contour (in feet)	et)
Vehicle Type	REMEL 1	REMEL Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak		Led Eve.	Leq Day Leq Eve. Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-1.59	-2.42	-1.20	57.30	54.62	53.31	47.26	55.70	56.33	70 dBA:	16	16
Medium Trucks	73.11	-16.48	-2.42	-1.20	53.02	33.49	25.71	34.92	41.07	41.10	65 dBA:	34	36
Heavy Trucks	80.26	-10.28	-2.42	-1.20	96.39	55.21	41.27	50.48	57.68	57.71	60 dBA:	73	11
				Total:	67.04	57.95	53.58	52.25	59.87	60.14	55 dBA:	158	165
Road Name:	Oak Grove Drive	ve Drive			Segment:		South of	South of Berkshire Place	Jace				
Average Daily Traffic: 6221 Vehicles	raffic: 622	1 Vehicles		Vehicle Sp	Vehicle Speed: 35 MPH		Vehicle Mix: 2	ix: 2		Rc	adway Cl	Roadway Classification: Major	: Major
	ON	NOISE PARAMETERS		T 75 FEET	AT 75 FEET FROM CENTERLINE	NTERLINE		(Equiv. Lane Dist:	Jist: 71.39 ft)		Centerlin	Centerline Distance to	to
		Noise Adj	Noise Adjustments			Unm	itigated №	Unmitigated Noise Levels	S		Noise Co	Noise Contour (in feet)	et)
Vehicle Type	REMEL 1	REMEL Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Led Day I	Led Eve.	Leq Day Leq Eve. Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-3.47	-2.42	-1.20	58.01	55.34	54.03	47.97	56.41	57.04	70 dBA:	14	15
Medium Trucks	74.83	-18.36	-2.42	-1.20	52.85	33.32	25.54	34.75	40.90	40.94	65 dBA:	30	32
Heavy Trucks	80.05	-12.16	-2.42	-1.20	64.27	53.11	39.18	48.38	55.59	55.61	60 dBA:	65	69
				Total:	65.44	57.40	54.17	51.29	59.10	59.46	55 dBA:	141	149
Road Name:	Oak Grove Drive	ve Drive			Segment:		East of Fo	East of Foothill Fwy Overpass	Overpass	10			
Average Daily Traffic: 6621 Vehicles	raffic: 662	1 Vehicles		Vehicle Sp	Vehicle Speed: 40 MPH		Vehicle Mix: 2	ix: 2	Rô	adway Cl	assificatio	Roadway Classification: Primary Arterial	Arterial
,				- 1			ļ			,			

CNEL

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Centerline Distance to Noise Contour (in feet)

(Equiv. Lane Dist: 79.53 ft)

NOISE PARAMETERS AT 85 FEET FROM CENTERLINE

Unmitigated Noise Levels

Leq Peak Leq Day Leq Eve. Leq Night

Dist Adj. Finite Adj

REMEL Traffic Adj.

Vehicle Type Automobiles

-3.13 -3.13 -3.13

-3.78

67.36 76.31

-18.66

Medium Trucks Heavy Trucks

-12.47

81.16

Noise Adjustments

41 88 190

18 39 83 179

> 65 dBA: 60 dBA: 55 dBA:

55.71 **60.25**

49.21 35.22 48.48 **51.97**

55.27 26.01 39.28 **55.38**

58.24

62.29

Total:

56.58 33.79 53.21

59.25 53.32 64.37

1.20 1.20 1.20

70 dBA:

58.28 41.41

CNEL

Ldn 57.65 41.37 55.69

Scenario: EXISTING WITH PROJECT ROUTE 1H CONDITIONS

		Arterial	to	et)	Ldn CNEL	37	80	171	369																
-		n: Minor A	Distance	istance ur (in fe		32	75	162	349																
one conditions, con		Roadway Classification: Minor Arterial	Centerline Distance to	Noise Contour (in feet)		63.90 70 dBA:	47.76 47.80 65 dBA:	60 dBA:	66.32 55 dBA:																
	sdı	adway			Ldn CNEL		47.80	62.47	66.32																
	und Ram	R	st: 57.66		Ldn	63.27	47.76	62.45	96'59																
	North of I-210 Northbound Ramps	x: 2	(Equiv. Lane Dist: 57.66 ft)	Unmitigated Noise Levels	Led Night	54.83	41.61	55.24	58.15																
	North of I	Vehicle Mix: 2		itigated №	eq Eve.	60.89	32.40	46.04	61.03																
			TERLINE	Unm	Led Day I	62.20	40.18	59.97	64.26																
	Segment:	Vehicle Speed: 35 MPH	ETERS AT 65 FEET FROM CENTERLINE		REMEL Traffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	64.87	59.71	71.13	72.30																
		ehicle Spe			-inite Adj	-1.20	-1.20	-1.20	Total:																
				ETERS AT	1ETERS AT	JETERS AT	1ETERS AT	IETERS AT	ETERS AT	ETERS AT	ETERS AT	ETERS AT	ETERS AT	ETERS AT	ETERS AT	ETERS AT (ETERS AT 6	ETERS AT (ETERS AT (1ETERS AT	Noise Adjustments	Dist Adj. I	-1.03	-1.03	-1.03
	Avenue	1 Vehicles	NOISE PARAMETERS Noise Adiustmen		raffic Adj.	2.00	-12.89	-6.69																	
	Windsor /	raffic: 2192	SION		REMELT	65.11	74.83	80.05																	
	Road Name: Windsor Avenue	Average Daily Traffic: 21921 Vehicles			Vehicle Type	Automobiles	Medium Trucks 74.83	Heavy Trucks																	

Scenario: EXISTING WITH PROJECT ROUTE 2A CONDITIONS

Project: Devil's Gate Reservoir Site Conditions: Soft

	_	Vehicle Mix	1 (Arterials	(S ₁	Vehicle	/ehicle Mix 2 (Arterial With Project)	erial With	Project)	>	Vehicle Mix 3 (I-210)	< 3 (I-210)	_
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night ر	Daily
Automobiles	%06 ['] 21 %05'69	12.90%	%09.6	92.00%	%20.99	12.26%	9.13%	87.45%	64.42%	13.20% 15.44%	15.44%	93.07%
Medium Trucks 1.44%	1.44%	%90.0	1.50%	3.00%	1.37%	%90.0	1.43%	2.85%	1.24%	0.22%	0.63%	2.09%
Heavy Trucks 2.40% 0.10%	2.40%	0.10%	2.50%	2.00%	7.34%	0.10%	2.38%	9.81%	2.65%	0.25% 1.94%	1.94%	4.84%

	rterial	0	÷	CNEL	28	09	128	277				
	condary A	Distance t	our (in fee	Ldn (56	26	120	258				
	Roadway Classification: Secondary Arterial	Centerline Distance to	Noise Contour (in feet)		64.19 70 dBA:	46.67 65 dBA:	59.53 60 dBA:	65.53 55 dBA:				
	ay Classi		_	CNEL	64.19	46.67	59.53	65.53				
eet	Roadwa	st: 50.83		Ldn	63.56	46.63	59.51	90'59				
South of Gladstone Street	x: 2	(Equiv. Lane Dist: 50.83 ft)	Unmitigated Noise Levels	Leq Night	55.13	40.48	52.58	57.14				
outh of (Vehicle Mix: 2) (Ec	tigated N	ed Eve.	61.18	31.27	43.37	61.26				
		TERLINE	Unmi	eq Day L	62.48	39.02	56.23	63.42				
Segment:	Vehicle Speed: 45 MPH	E PARAMETERS AT 55 FEET FROM CENTERLINE		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	65.07	58.48	68.37	70.33				
	Vehicle Spe			Finite Adj	-1.20	-1.20	-1.20	Total:				
	es AMETERS		AETERS	METERS	METERS	AETERS	stments	Dist Adj.	-0.21	-0.21	-0.21	
venue							vericies E PARAME	Noise Adjustments	REMEL Traffic Adj. Dist Adj.	-2.87	-17.73	-12.36
Vincent A	raffic: 9025	SION		REMELT	69.34	77.62	82.14					
Road Name: Vincent Avenue	Average Daily Traffic: 9025 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks					

	Arterial	o to	eet)	Ldn CNEL	32	69	150	322	
	econdary	Distance	tour (in f	Ldn	30	65	139	300	
	Roadway Classification: Secondary Arterial	Centerline Distance to	Noise Contour (in feet)		65.80 70 dBA:	48.27 65 dBA:	61.14 60 dBA:	66.67 67.14 55 dBA:	
	ay Class			Ldn CNEL	65.80		61.14	67.14	
vay	Roadw	st: 45.38		Ldn	65.17	48.24	61.11	66.67	
South of Arrow Highway	ix: 2	(Equiv. Lane Dist: 45.38 ft)	Unmitigated Noise Levels	Leq Night	56.74	42.09	54.19	58.75	
South of	Vehicle Mix: 2		itigated l	Led Eve.	62.79	32.88	44.98	62.87	
	, 	ITERLINE	Unm	Led Day	64.09	40.66	57.84	65.03	
Segment:	Vehicle Speed: 45 MPH	AT 50 FEET FROM CENTERLINE		REMELTraffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	89.99	60.09	69.97	71.94	
	/ehicle Spe	. 50 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:	
				Noise Adjustments	Dist Adj.	0.53	0.53	0.53	
venue	5 Vehicles	11025 Vehicles VOISE PARAMETERS		raffic Adj.	-2.00	-16.86	-11.50		
Vincent A	raffic: 1102	SION		REMELT	69.34	77.62	82.14		
Koad Name: Vincent Avenue	Average Daily Traffic: 11025 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	-	

Arterial	to to	eet)	CNEL	26	120	259	222
Principal	Distance	our (in f	Ldn	52	112	241	519
Roadway Classification: Principal Arterial	Centerline Distance to	Noise Contour (in feet)		68.19 70 dBA:	50.66 65 dBA:	63.53 60 dBA:	69.52 55 dBA:
dway Cla	ft)		Ldn CNEL	68.19	50.66	63.53	69.52
	: 51.96		Ldn	67.55	50.63	63.50	90.69
East of Vincent Avenue Vehicle Mix: 2	(Equiv. Lane Dist: 51.96 ft)	Jnmitigated Noise Levels	Led Night	59.12	44.47	56.58	61.14
East of Vince Vehicle Mix: 2)Ec	tigated N	ed Eve.	65.18	35.26	47.37	65.25
ı.	TERLINE	Unmi	ed Day L	66.47	43.05	60.23	67.41
Segment: Vehicle Speed: 45 MPH	AT 60 FEET FROM CENTERLINE		dj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	90.69	62.47	72.36	74.32
Vehicle Spe	F 60 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:
	ETERS AT	stments	Dist Adj.	-0.35	-0.35	-0.35	
yhway 00 Vehicles	NOISE PARAMETERS	Noise Adjustment	REMELTraffic Adj. Dist Adj.	1.27	-13.59	-8.23	
Arrow Hig raffic: 2340	SION		REMELT		77.62	82.14	
Road Name: Arrow Highway Average Daily Traffic: 23400 Vehicles			Vehicle Type	Automobiles	Medium Trucks 77.62	Heavy Trucks	-

Scenario: EXISTING WITH PROJECT ROUTE 2A CONDITIONS

Coad Name: Arrow Highworld Name: Arrow Highw
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Arterial	to	et)	CNEL	26	121	262	564
Principal ,	Distance	our (in fe	Ldn	53	113	244	525
Roadway Ciassification: Principal Afferial	Centerline Distance to	Noise Contour (in feet)		68.26 70 dBA:	50.73 65 dBA:	60 dBA:	69.59 55 dBA:
away Cia			Ldn CNEL	68.26	50.73	63.60	69.29
Koac	t: 51.96		Ldn	67.63	50.70	63.57	69.13
X: Z	(Equiv. Lane Dist: 51.96 ft)	Unmitigated Noise Levels	Leq Night	59.20	44.55	29.95	61.21
Venicle MIX: Z		itigated №	eq Eve.	65.25	35.34	47.44	65.33
	TERLINE	Unm	∟eq Day I	66.54	43.12	60.30	67.49
Venicle Speed: 45 IMPH	AT 60 FEET FROM CENTERLINE		REMELTraffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	69.14	62.55	72.43	74.39
venicie Spe	r 60 feet i		Finite Adj	-1.20	-1.20	-1.20	Total:
	ETERS A ⁻	stments	Dist Adj.	-0.35	-0.35	-0.35	
U Venicles	NOISE PARAMETERS	Noise Adjustments	raffic Adj.	1.35	-13.52	-8.15	
гапіс: 2380	SION		REMELT	69.34	77.62	82.14	
Average Dally Traffic: 23800 Venicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

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East of Enid Avenue	
Segment:	
Road Name: Arrow Highway	
Road Name:	-

Arterial	to to	eet)	CNEL	22	124	267	575
Principal	Distance	our (in f	Ldn	24	115	248	535
Roadway Classification: Principal Arterial	Centerline Distance to	Noise Contour (in feet)		68.39 70 dBA:	50.86 65 dBA:	63.73 60 dBA:	69.72 55 dBA:
Iway Cla			CNEL	68.39	50.86	63.73	69.72
Road	: 51.96		Ldn	67.75	50.83	63.70	69.26
x: 2	(Equiv. Lane Dist: 51.96 ft)	Jnmitigated Noise Levels	Leq Night	59.32	44.67	56.78	61.34
Vehicle Mix: 2)Ec	igated N	eq Eve.	65.38	35.46	47.57	65.45
	ITERLINE	Unmit	Led Day L	29.99	43.25	60.43	67.61
ed: 45 MP	-ROM CEN		Leg Peak	69.26	62.67	72.56	74.52
Vehicle Speed: 45 MPH	AT 60 FEET FROM CENTERLINE		dj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	-1.20	-1.20	-1.20	Total:
,		stments	Dist Adj.	-0.35	-0.35	-0.35	
0 Vehicles	NOISE PARAMETERS	Noise Adjustmen	affic Adj.	1.47	-13.39	-8.03	
affic: 24500	SION		REMEL Traffic Adj.	69.34	77.62	82.14	
Average Daily Traffic: 24500 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

Road Name: Azusa Avenue Segment: North of Arrow Highway
- 1

	Arterial	to	et)	CNEL	25	111	240	217
	rıncıpal ,	Centerline Distance to	our (in fe	Ldn	48	104	223	482
	Roadway Classification: Principal Arterial		Noise Contour (in feet)		67.69 70 dBA:	50.17 65 dBA:	63.04 60 dBA:	69.03 55 dBA:
3	ıway Cla			CNEL		50.17	63.04	69.03
	Road	: 51.96		Ldn (90'.29	50.14	63.01	68.57
)	X: Z	TERLINE (Equiv. Lane Dist: 51.96 ft)	Inmitigated Noise Levels	Leq Night	58.63	43.98	56.09	60.65
	Venicle Mix: 2		tigated N	eq Eve.	64.69	34.77	46.88	64.76
			Unmi	eq Day L	65.98	42.55	59.74	66.92
֝֝֝֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	Vehicle Speed: 45 MPH	AT 60 FEET FROM CENTERLINE		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	68.57	61.98	71.87	73.83
-	ehicle Spe	60 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:
		ETERS	stments	<u>.</u>	-0.35	-0.35	-0.35	
) Venicles		Noise Adjustmen	affic Adj.	0.78	-14.08	-8.72	
	Average Daily Traffic: 20900 Vehicles	SION	2	REMEL Traffic Adj. Dist Ad	69.34	77.62	82.14	
: (Average Dally I			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	•

North of Gladstone Street	
Segment:	
Avenue	
Azusa Avenue	
Road Name:	

\rterial	to	et)	CNEL	37	80	172	370
Principal A	Distance	our (in fe	Ldn	32	75	161	348
Roadway Classification: Principal Arterial	Centerline Distance to	Noise Contour (in feet)		64.33 70 dBA:	48.24 65 dBA:	61.81 60 dBA:	55 dBA:
dway Cla			CNEL	64.33	48.24	61.81	66.33
Road	: 57.66		Ldn	63.70	48.21	61.78	65.93
x: 2	(Equiv. Lane Dist: 57.66 ft)	Jnmitigated Noise Levels	Leq Night	55.26	42.05	54.86	58.18
Vehicle Speed: 35 MPH Vehicle Mix: 2	E(tigated N	eq Eve.	61.32	32.85	45.65	61.44
	TERLINE	Unmi	Leq Day L	62.61	40.63	58.51	64.06
	AT 65 FEET FROM CENTERLINE		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	65.20	90.09	70.64	72.02
	65 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:
,	ETERS	ustments		-1.03	-1.03	-1.03	
) Vehicles	NOISE PARAMETERS	Noise Adjustment	affic Adj.	2.33	-12.54	-7.17	
affic: 23200	SION	l	REMEL Traffic Adj. Dist Adj	65.11	74.83	80.05	
Average Daily Traffic: 23200 Vehicles			Vehicle Type	Automobiles	Medium Trucks 74.83	Heavy Trucks	-

Scenario: EXISTING WITH PROJECT ROUTE 2B CONDITIONS

Project: Devil's Gate Reservoir Site Conditions: Soft

						Arterial	to	et)	Ldn CNEL	27	29	126	272
	Daily	93.07%	2.09%	4.84%		econdary	Distance	tour (in fe	Ldn	25	22	118	254
(3 (1-210)	Night	64.42% 13.20% 15.44% 93.07%	0.63%	1.94%		Roadway Classification: Secondary Arterial	Centerline Distance to	Noise Contour (in feet)		70 dBA:	46.56 65 dBA:	59.43 60 dBA:	65.42 55 dBA:
Vehicle Mix 3 (I-210)	Evenin Night	13.20%	0.22% 0.63%	0.25% 1.94%		ay Class			Ldn CNEL	63.46 64.09 70 dBA:		59.43	
	Day	64.42%	1.24%	2.65%	street	Roadw	ist: 50.83	"	Ldn	63.46	46.53	59.40	64.96
Project)	Daily	87.45%	2.85%	9.81%	South of Gladstone Street	x: 2	(Equiv. Lane Dist: 50.83 ft)	Unmitigated Noise Levels	Led Night	55.03	40.37	52.48	57.04
rial With F	Night	9.13%	1.43%	2.38%	South of	Vehicle Mix: 2		itigated N	ed Eve.	61.08	31.17	43.27	61.16
Vehicle Mix 2 (Arterial With Project)	Evening Night	12.26%	%90.0	0.10%			ITERLINE	Unm	Led Day 1	62.37	38.95	56.13	63.31
Vehicle N	Day	66.07% 12.26% 9.13%	1.37%	7.34%	Segment:	Vehicle Speed: 45 MPH	NOISE PARAMETERS AT 55 FEET FROM CENTERLINE		REMELTraffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	64.96	58.38	68.26	70.22
3)	Daily	92.00%	3.00%	2.00%		Vehicle Spe	T 55 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:
1 (Arterial	Night	%09.6	1.50%	2.50%			ETERS A	ustments	Dist Adj.	-0.21	-0.21	-0.21	
Vehicle Mix 1 (Arterials)	Day Evening	12.90%	%90.0	0.10%	venue	3 Vehicles	SE PARAM	Noise Adjustments	raffic Adj.	-2.97	-17.84	-12.47	
	Day	69.50% 12.90%	1.44%	2.40%	Vincent A	raffic: 881;	ION		REMELT	69.34	77.62	82.14	
1	Vehicle Type	Automobiles	Medium Trucks 1.44% 0.06%	Heavy Trucks 2.40%	Road Name: Vincent Avenue	Average Daily Traffic: 8813 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	-

Road Name: Vincent Avenue	Vincent Av	enne,			Segment:	יי	south of,	South of Arrow Highway	>				
Average Daily Traffic: 11025 Vehicles	raffic: 11025	5 Vehicles		√ehicle Spe	Vehicle Speed: 45 MPH		/ehicle Mix: 2	ix: 2	Roadwa	ıy Class	Roadway Classification: Secondary Arterial	ondary /	Arterial
	ISION	NOISE PARAMETERS	ETERS A 1	- 50 FEET	AT 50 FEET FROM CENTERLINE	JTERLINE		(Equiv. Lane Dist: 45.38 ft)	45.38 f		Centerline Distance to	istance	to
	~	Noise Adjustment	stments			Unmi	itigated №	Unmitigated Noise Levels			Noise Contour (in feet)	ur (in fe	et)
Vehicle Type	REMEL Traffic Adj. Dist Adj.	affic Adj.		Finite Adj	Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	Led Day L	ed Eve.	Leq Night	Ldn CNEL	CNEL		Ldn	CNEL
vutomobiles	69.34	-2.00	0.53	-1.20	89.99	64.09	62.79	56.74	65.17	65.80	65.80 70 dBA:	30	32
Medium Trucks	77.62	-16.86	0.53	-1.20	60.09	40.66	32.88	42.09	48.24	48.27	48.27 65 dBA:	65	69
Heavy Trucks	82.14	-11.50	0.53	-1.20	69.97	57.84	44.98	54.19	61.11	61.14	61.14 60 dBA:	139	150
-				Total:	71.94	65.03	62.87	58.75	29.99	67.14	67.14 55 dBA:	300	322

	Arterial	to	et)	CNEL	26	121	260	561
	Principal,	Distance	our (in fe	Ldn	25	113	242	522
	Roadway Classification: Principal Arterial	Centerline Distance to	Noise Contour (in feet)		68.22 70 dBA:	50.70 65 dBA:	63.57 60 dBA:	69.56 55 dBA:
	Iway Cla			CNEL	68.22	50.70	63.57	
•	Road	51.96		Ldn	62.79	20.67	63.54	69.10
East of Vincent Avenue	x: 2	ETERS AT 60 FEET FROM CENTERLINE	Jnmitigated Noise Levels	Led Night	59.16	44.51	56.62	61.18
ast of Vi	Vehicle Mix: 2		tigated N	ed Eve.	65.22	35.30	47.41	65.29
			Unmi	Led Day L	66.51	43.08	60.27	67.45
Segment:	Vehicle Speed: 45 MPH			Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	69.10	62.51	72.40	74.36
	Vehicle Spe			Finite Adj	-1.20	-1.20	-1.20	Total:
			stments		-0.35	-0.35	-0.35	
lhway	3 Vehicles		Noise Adjustment	REMEL Traffic Adj. Dist Adj	1.31	-13.55	-8.19	
Arrow Hig	raffic: 2361			REMELTI	69.34	77.62	82.14	
Road Name: Arrow Highway	Average Daily Traffic: 23613 Vehicles			Vehicle Type	Automobiles	Medium Trucks 77.62	Heavy Trucks	

Scenario: EXISTING WITH PROJECT ROUTE 2B CONDITIONS

		Arterial	to	et)	CNEL	22	122	263	267
=		Principal	Distance	our (in fe	Ldn	23	114	242	528
one conditions, son		Roadway Classification: Principal Arterial	Centerline Distance to	Noise Contour (in feet)		68.30 70 dBA:	50.77 65 dBA:	60 dBA:	69.63 55 dBA:
סוומ		Iway Cla			Ldn CNEL	68.30	50.77	63.64	
	nue	Road	st: 51.96		Ldn	29'29	50.74	63.61	69.17
	East of Lark Ellen Avenue	x: 2	(Equiv. Lane Dist: 51.96 ft)	Unmitigated Noise Levels	Led Night	59.24	44.58	56.69	61.25
	East of La	Vehicle Mix: 2		itigated №	Led Eve.	62.29	35.38	47.48	65.37
			TERLINE	Unm	Led Day I	66.58	43.16	60.34	67.52
	9	Vehicle Speed: 45 MPH	AT 60 FEET FROM CENTERLINE		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	69.18	62.59	72.47	74.43
		Vehicle Spe	T 60 FEET I		Finite Adj	-1.20	-1.20	-1.20	Total:
			ETERS A	stments	Dist Adj.	-0.35	-0.35	-0.35	
		13 Vehicles	NOISE PARAMETERS	Noise Adjustmen	REMEL Traffic Adj. Dist Ad	1.38	-13.48	-8.11	
	Arrow Hig	raffic: 240	ION		REMELT	69.34	77.62	82.14	
	Road Name: Arrow Highway Average Daily Traffic: 24013 Vehicles				Vehicle Type	Automobiles	Medium Trucks 77.62	Heavy Trucks	-

	Arterial	to to	eet)	CNEL	28	125	268	218						
	Principal	terline Distance	Centerline Distance to	our (in f	Ldn	24	116	250	538					
	Roadway Classification: Principal Arterial	Centerline	Noise Contour (in feet)		68.42 70 dBA:	50.90 65 dBA:	60 dBA:	69.76 55 dBA:						
	dway Cla	ft)		Ldn CNEL	68.42	50.90	63.77	92.69						
	Road	t: 51.96		Ldn	67.79	50.86	63.74	69.29						
East of Enid Avenue	ix: 2	(Equiv. Lane Dist: 51.96 ft)	Jnmitigated Noise Levels		59.36	44.71	56.81	61.38						
East of E	/ehicle Mix: 2		itigated I	eq Eve.	65.41	35.50	47.61	65.49						
		TERLINE	Unm	∟eq Day I	66.71	43.28	60.46	67.65						
Segment:	Vehicle Speed: 45 MPH	FROM CEN		REMELTraffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	08.89	62.71	72.60	74.56						
	/ehicle Spe	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE		Finite Adj	-1.20	-1.20	-1.20	Total:						
	,		METERS AT 6	AMETERS AT (AMETERS AT	AMETERS AT	AMETERS AT	AMETERS AT 6	METERS AT 6	nstments	Dist Adj.	-0.35	-0.35	-0.35
yhway	13 Vehicles	SE PARAM	Noise Adj	Noise Adjustmei	raffic Adj.	1.51	-13.36	-7.99						
Arrow Hig	raffic: 2471	SION		REMELT	69.34	77.62	82.14							
Road Name: Arrow Highway	Average Daily Traffic: 24713 Vehicles NOISE PARAM			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks							

	Arterial	to	eet)	CNEL	52	112	242	520	
	Principal	Distance	our (in f	Ldn	48	104	225	485	
	Roadway Classification: Principal Arterial	Centerline Distance to	Noise Contour (in feet)		67.74 70 dBA:	65 dBA:	60 dBA:	55 dBA:	
	dway Cla			CNEL		50.21	63.08	69.07	
ay	Road	st: 51.96		Ldn	67.11	50.18	63.05	68.61	
North of Arrow Highway	x: 2	(Equiv. Lane Dist: 51.96 ft)	Unmitigated Noise Levels		28.68	44.03	56.13	69.09	
Vorth of /	Vehicle Mix: 2		itigated N	Led Eve.	64.73	34.82	46.92	64.81	
		ITERLINE	Unm	Leq Day I	66.02	42.60	59.78	26.99	
Segment	ed: 45 MPF	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE		REMELTraffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	68.62	62.03	71.91	73.87	
	Vehicle Speed: 45 MPH	F 60 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:	
		ETERS A ^T	ustments	Dist Adj.	-0.35	-0.35	-0.35		
enne	3 Vehicles	SE PARAM	Noise Adjustments	affic Adj.	0.83	-14.04	-8.67		
Azusa Ave	raffic: 2111	SION		REMELTr	69.34	77.62	82.14		
Road Name: Azusa Avenue	Average Daily Traffic: 21113 Vehicles			Vehicle Type	Automobiles	Medium Trucks 77.62	Heavy Trucks	•	

	Arterial	to	et)	CNEL	37	80	173	372						
	rincipal /	Distance	our (in fe	Ldn	32	75	162	320						
	Roadway Classification: Principal Arterial	Centerline Distance to	Noise Contour (in feet)		63.74 64.37 70 dBA:	48.28 65 dBA:	61.85 60 dBA:	66.37 55 dBA:						
	dway Cla	ft)		Ldn CNEL	64.37	48.28								
reet	Roac	st: 57.66		Ldn	63.74	48.25	61.82	65.97						
North of Gladstone Street	ix: 2	(Equiv. Lane Dist: 57.66 ft)	Jumitigated Noise Levels	Leq Night	55.30	42.09	54.90	58.22						
North of	/ehicle Mix: 2		itigated №	ed Eve.	61.36	32.89	45.69	61.48						
		TERLINE	Unm	Leq Day I	62.65	40.67	58.52	64.10						
Segment:	ed: 35 MPF	NOISE PARAMETERS AT 65 FEET FROM CENTERLINE		1dj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	65.24	60.10	70.68	72.06						
	Road Name:Azusa AvenueAzusa AvenueVehicle Speed: 35 MPH			Finite Adj	-1.20	-1.20	-1.20	Total:						
			stments	Dist Adj.	-1.03	-1.03	-1.03							
nue			Vehicles	PARAME	loise Adju	loise Adju	loise Adju	oise Adju	Noise Adjustmer	affic Adj.	2.37	-12.50	-7.13	
Azusa Ave			2	REMEL Traffic Adj. Dist A	65.11	74.83	80.05							
Road Name:	Average Daily T			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks							

Scenario: EXISTING WITH PROJECT ROUTE 4A CONDITIONS

Project: Devil's Gate Reservoir Site Conditions: Soft

		Vehicle Mix	1 (Arterials	s)	Vehicle №	1ix 2 (Scho	II Cyn Witl	/ehicle Mix 2 (Scholl Cyn With Project) Vehicle Mix 3 (Figueroa W-Project)	Vehicle I	Mix 3 (Figi	ueroa W-l	Project)
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day E∖	Evenin	Night	Daily
Automobiles	%05.69	69.50% 12.90%	%09.6	92.00%	39.96%	7.42%	5.52%	52.90%	%06'.29	12.60%	9.38%	88.88%
Medium Trucks 1.44% 0.06%	1.44%	%90.0	1.50%	3.00%	0.83%	0.03%	%98.0	1.73%	0 1.41% 0	%90'	1.47%	2.93%
Heavy Trucks 2.40%	2.40%	0.10%	2.50%	2.00%	44.90%	%90.0	0.44%	45.40%	6.41%	0.10%	2.48%	8.99%

	n: Hillside	nce to	n feet)	n CNEL	0 10	2 22	8 48	3 104							
	Roadway Classification: Hillside	Centerline Distance to	Noise Contour (in feet)	Ldn	JBA: 1	JBA: 2.	JBA: 48	JBA: 103							
	adway	Cent	Nois		0/2	65 0	09	25 0							
amps	Ros	ft)		Ldn CNEL	49.59 70 dBA:	33.51 65 dBA:	60.06 60 dBA:	60.45 55 dBA:							
ound R		t: 44.09		Ldn	48.96	33.47	60.05	60.39							
North of SR-134 Westbound Ramps	ix: 2	(Equiv. Lane Dist: 44.09 ft)	Jnmitigated Noise Levels	Led Night	40.53	27.32	43.79	45.54							
orth of §	Vehicle Mix: 2	E(tigated №	eq Eve.	46.58	18.11	39.75	47.41							
		JTERLINE	Unmi	Led Day L	47.88	25.89	62.65	62.80							
Segment:	1425 Vehicles Vehicle Speed: 35 MPH VOISE PARAMETERS AT 45 FEET FROM CENTERLINE	-ROM CEN		Leg Peak	52.65	47.50	66.92	67.13							
		⁻ 45 FEET I		Finite Adj	-1.20	-1.20	-1.20	Total:							
-		ETERS A1	Noise Adjustments	Dist Adj.	0.72	0.72	0.72								
anyon Roac	5 Vehicles	SE PARAM		Noise Adju	Noise Adju	Noise Adju	Noise Adju	Noise Adju	Noise Adjus	Noise Adjus	Noise Adjust	REMELTraffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	-11.97	-26.84	-12.64
Scholl Ca	affic: 142	ION		REMELT	65.11	74.83	80.05								
Road Name:	Road Name: Scholl Canyon Road Average Daily Traffic: 1425 Vehicles NOISE PARAME			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	•							

	condary	to	eet)	Ldn CNEL	22	47	102	220																
	ation: Sec	Distance	tour (in f	Ldn	21	42	96	207																
	Roadway Classification: Secondary	Centerline Distance to	Noise Contour (in feet)		62.24 70 dBA:	46.16 65 dBA:	59.13 60 dBA:	63.62 64.04 55 dBA:																
	Roadw			Ldn CNEL		46.16	59.13	64.04																
rive		t: 49.49		Ldn	61.61	46.13	59.10	63.62																
South of Eagle Vista Drive	x: 3	(Equiv. Lane Dist: 49.49 ft)	Unmitigated Noise Levels	Led Night	53.18	39.97	52.35	55.91																
South of I	/ehicle Mix: 3		tigated N	ed Eve.	59.24	30.76	43.07	59.35																
		TERLINE	Unmi	eq Day 1	60.53	38.55	55.22	61.67																
Segment:	Vehicle Speed: 35 MPH	S AT 55 FEET FROM CENTERLINE		Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	63.00	57.85	67.94	69.46																
	/ehicle Spe	. 55 FEET I		Finite Adj	-1.20	-1.20	-1.20	Total:																
		ETER	SE PARAMETERS AT	SE PARAMETERS AT (ETER	ETER	ETER	ETER	ETER	ETER	ETER	ETER	SE PARAMETERS AT	SE PARAMETERS AT 5	SE PARAMETERS AT 5	SE PARAMETERS AT 5	1ETERS AT 5	METERS AT !	stments	Dist Adj.	-0.04	-0.04	-0.04	
Street	3 Vehicles																Noise Adjustme	REMELTraffic Adj. Dist A	-0.87	-15.74	-10.87			
Figueroa	affic: 108′	ION		REMELT	65.11	74.83	80.05																	
Road Name: Figueroa Street	Average Daily Traffic: 10813 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks																	

Scenario: EXISTING WITH PROJECT ROUTE 4B CONDITIONS

Project: Devil's Gate Reservoir Site Conditions: Soft

		Vehicle Mix	1 (Arterials	s)	Vehicle M	lix 2 (Scho	II Cyn Witl	/ehicle Mix 2 (Scholl Cyn With Project) Vehicle Mix 3 (Figueroa W-Project)	Vehicle I	Mix 3 (Figu	ueroa W-ł	Project)
/ehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
utomobiles	69.50%	69.50% 12.90%	%09.6	92.00%	39.96%	7.42%	5.52%	52.90%	606'29	% 12.60% §	9.38%	89.88%
ledium Trucks 1.44%		%90.0	1.50%	3.00%	0.83%	0.03%	%98.0	1.73%	1.41%	%90.0	1.47%	2.93%
Heavy Trucks 2.40%	2.40%	0.10%	2.50%	2.00%	44.90%	%90.0	0.44%	45.40%	6.41%	0.10%	% 2.48% 8	8.99%

	lillside	to	et)	CNEL	10	22	48	104																		
	fication: F	Distance	our (in fe	Ldn	10	22	48	103																		
	Roadway Classification: Hillside	Centerline Distance to	Noise Contour (in feet)		49.59 70 dBA:	33.51 65 dBA:	60.06 60 dBA:	60.39 60.45 55 dBA:																		
sdme	Roa	ft)		Ldn CNEL	49.59	33.51	90.09	60.45																		
bound Ra		st: 44.09		Ldn	48.96	33.47	60.05	60.39																		
North of SR-134 Westbound Ramps	x: 2	(Equiv. Lane Dist: 44.09 ft)	Jumitigated Noise Levels	Led Night	40.53	27.32	43.79	45.54																		
orth of §	Vehicle Mix: 2	E(tigated N	ed Eve.	46.58	18.11	39.75	47.41																		
		ITERLINE	Unmi	Led Day L	47.88	25.89	62.65	62.80																		
Segment:	ed: 35 MPH	Ā	T FROM CENT		Leq Peak	52.65	47.50	66.95	67.13																	
	Vehicle Speed: 35 MPH			REMEL Traffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	-1.20	-1.20	-1.20	Total:																		
-	_		ETERS AT 4	ETERS AT	ETERS AT	ETERS AT	ETERS AT	ETERS AT	ETERS AT	1ETERS AT 4	METERS AT	METERS AT	METERS AT 4	METERS AT 4	JETERS AT 4	METERS AT 4	METERS AT	nstments	Dist Adj.	0.72	0.72	0.72				
nyon Roac	Vehicles	NOISE PARAMETERS	Noise Adjustment	affic Adj.	-11.97	-26.84	-12.64																			
Scholl Ca	raffic: 1425	SION		REMELTr	65.11	74.83	80.05																			
Road Name: Scholl Canyon Road	Average Daily Traffic: 1425 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	-																		

	ondary	to	eet)	CNEL	22	48	104	223
	tion: Sec	Distance	Distance tour (in f		21	45	97	209
	Roadway Classification: Secondary	Centerline Distance to	Noise Contour (in feet)		62.33 70 dBA:	46.24 65 dBA:	59.21 60 dBA:	64.13 55 dBA:
	Roadw	ft)		Ldn CNEL	62.33	46.24	59.21	
Drive		st: 49.49		Ldn	61.70	46.21	59.18	63.71
South of Eagle Vista Drive	ix: 3	(Equiv. Lane Dist: 49.49 ft)	Unmitigated Noise Levels	Leq Night	53.27	40.06	52.43	55.99
South of I	Vehicle Mix: 3		itigated N	Led Eve.	59.32	30.85	43.15	59.43
		ITERLINE	Unm	Leq Day I	60.61	38.63	55.30	61.76
Segment:	Vehicle Speed: 35 MPH	NOISE PARAMETERS AT 55 FEET FROM CENTERLINE		Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	63.09	57.94	68.02	69.54
	/ehicle Spe	. 55 FEET F		Finite Adj	-1.20	-1.20	-1.20	Total:
		ETERS AT	nstments	Dist Adj.	-0.04	-0.04	-0.04	
Street	5 Vehicles	E PARAM	Noise Adjustments	affic Adj.	-0.79	-15.65	-10.78	
Figueroa \$	affic: 1102	SION		REMEL Traffic Adj. Dist A	65.11	74.83	80.05	
Road Name: Figueroa Street	Average Daily Traffic: 11025 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

Scenario: EXISTING WITH PROJECT ROUTE 5A CONDITIONS

		Vehicle Mix	1 (Arterials	(s)	Vehicle №	'ehicle Mix 2 (Foothill Blvd W-Project) Vehicle Mix 3 (Wentworth W-Project)	M Plvd W،	/-Project)	Vehicle N	lix 3 (Wen	tworth W	-Project)
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day Evenin	Evenin	Night	Daily
Automobiles	%05.69	69.50% 12.90%	%09.6	92.00%	64.96%	12.06%	8.97%	82.98%		66.68% 12.38%	9.21%	88.27%
Medium Trucks 1.44% 0.06%	1.44%	%90.0	1.50%	3.00%	1.35%	%90.0	1.40%	2.80%	1.38%	%90.0	1.44%	2.88%
Heavy Trucks 2.40% 0.10%	2.40%	0.10%	2.50%	2.00%	8.94%	%60.0	2.34%	11.37%	6.74%	0.10%	2.40%	9.23%

: Major	t t	et)	CNEL	32	9/	163	352
ssification	Distance	our (in fe	Ldn	33	2	152	327
Roadway Classification: Maior	Centerline Distance to	Noise Contour (in feet)		61.33 70 dBA:	43.81 65 dBA:	56.28 60 dBA:	62.57 55 dBA:
			Ldn CNEL	61.33	43.81	56.28	62.57
und Ram	t: 107.57		Ldn	02.09	43.78	56.25	62.10
South of I-210 Westbound Ramps Vehicle Mix: 3	(Equiv. Lane Dist: 107.57 ft)	Unmitigated Noise Levels	Led Night	52.27	37.62	49.42	54.18
South of I-210 Vehicle Mix: 3	(Ec	tigated N	ed Eve.	58.33	28.41	40.21	58.40
::	TERLINE	Unmi	Led Day L	59.65	36.19	52.66	60.43
Segment: Vehicle Speed: 45 MPH	AT 110 FEET FROM CENTERLINE		REMEL Traffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	62.17	55.58	65.16	67.24
/ehicle Spe	110 FEET I	stments	Finite Adj	-1.20	-1.20	-1.20	Total:
	TERS		ustments	Dist Adj.	-5.09	-5.09	-5.09
oulevard 5 Vehicles	:: 14125 Vehicles NOISE PARAMETERS	Noise Adjustment	raffic Adj.	-0.88	-15.75	-10.68	
Foothill B raffic: 1412	ISION				77.62	82.14	
Road Name: Foothill Boulevard Average Daily Traffic: 14125 Vehicles			Vehicle Type	Automobiles	Medium Trucks 77.62	Heavy Trucks	

	Major	to	et)	CNEL	32	69	148	318
	sification:	Distance	our (in fe	Ldn CNEL	30	64	138	297
	Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		63.73 64.36 70 dBA:	47.51 65 dBA:	60.31 60 dBA:	65.87 55 dBA:
	ď	ft)		Ldn CNEL	64.36		60.31	65.87
evard		st: 55.42		Ldn	63.73	47.48	60.28	65.42
West of Foothill Boulevard	<u>х</u> : 3	(Equiv. Lane Dist: 55.42 ft)	Unmitigated Noise Levels	Leq Night	55.30	41.32	53.45	57.59
West of F	Vehicle Mix: 3		itigated №	Led Eve.	61.35	32.12	44.24	61.44
		ITERLINE	Unm	Led Day	62.65	39.90	56.69	63.65
Segment:	Vehicle Speed: 40 MPH	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE		REMEL Traffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	65.20	59.29	69.19	96.07
	Vehicle Spe	- 60 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:
		ETERS AT	stments	Dist Adj.	-0.77	-0.77	-0.77	
ireet	5 Vehicles	E PARAM	Noise Adjustmer	affic Adj.	-0.19	-15.05	-9.99	
Osborne S	raffic: 1472	SION	_		98'.29	76.31	81.16	
Road Name: Osborne Street	Average Daily Traffic: 14725 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

	า: Major	to	eet)	CNEL	24	117	251	541
	sification	Distance	our (in f	Ldn	20	108	233	503
	Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		67.46 68.09 70 dBA:	50.56 65 dBA:	63.03 60 dBA:	68.85 69.32 55 dBA:
	Ä			Ldn CNEL	68.09	50.56	63.03	69.32
*		: 55.42		Ldn	67.46	50.53	63.00	68.85
South of Osborne Street	x: 3	(Equiv. Lane Dist: 55.42 ft)	Unmitigated Noise Levels	Led Night	59.02	44.37	56.17	60.94
outh of (Vehicle Mix: 3) (Ec	igated N	ed Eve.	65.08	35.16	46.96	65.15
		ITERLINE	Unmit	Led Day L	66.37	42.95	59.41	67.18
Segment:	ed: 45 MPF	-ROM CEN		Leg Peak	68.92	62.33	71.91	73.99
	Vehicle Speed: 45 MPH	AT 60 FEET FROM CENTERLINE		REMELTraffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	-1.20	-1.20	-1.20	Total
Þ		ETERS AT	ustments	Dist Adj.	-0.77	-0.77	-0.77	
s Boulevar	25 Vehicles	NOISE PARAMETERS	Noise Adjustment	raffic Adj.	1.55	-13.31	-8.25	
Glen Oak	raffic: 2472	SION		REMELT	69.34	77.62	82.14	
Road Name: Glen Oaks Boulevard	Average Daily Traffic: 24725 Vehicles			Vehicle Type	Automobiles	Medium Trucks 77.62	Heavy Trucks	

Scenario: EXISTING WITH PROJECT ROUTE 5B CONDITIONS

		Vehicle Mix	1 (Arterials	s)	Vehicle N	Mix 2 (Foot	hill Blvd M	Vehicle Mix 2 (Foothill Blvd W-Project)	Vehicle Mix 3 (Wentworth W-Project)	lix 3 (Wer	tworth W	-Project)
Vehicle Type	Day	Day Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin		Daily
Automobiles	%05.69	12.90%	%09.6	92.00%	64.96%	12.06%	8.97%	82.98%	%89'99	12.38%	9.21%	88.27%
Medium Trucks 1.44% 0.06%	1.44%	%90.0	1.50%	3.00%	1.35%	%90.0	1.40%	2.80%	1.38%	%90.0	1.44%	2.88%
Heavy Trucks 2.40%	2.40%	0.10%	2.50%	2.00%	8.94%	0.09%	2.34%	11.37%	6.74%	0.10%	2.40%	9.23%

						: Major	to	et)	CNEL	41	88	189	407
(2006)	Daily	88.27%	2.88%	9.23%		ssification	Distance	tour (in fe	Ldn	38	8	176	378
	Night		0.06% 1.44%	2.40%		Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		66.80 70 dBA:	49.27 65 dBA:	60 dBA:	55 dBA:
× > (• • • •	Evenin Night	12.38%	%90.0	0.10% 2.40%		R			CNEL		49.27	61.74	68.03
0.00	Day	66.68% 12.38% 9.21%	1.38%	6.74%	ět		st: 49.96		Ldn	66.17	49.24	61.71	67.56
termine that I commit enter the relation of the comment of the com	Daily	82.98%	2.80%	11.37%	South of Penrose Street	x: 3	(Equiv. Lane Dist: 49.96 ft)	Unmitigated Noise Levels	Led Night	57.73	43.08	54.88	59.64
	Night	8.97%	1.40%	2.34%	outh of I	Vehicle Mix: 3	(Ec	tigated N	ed Eve.	63.79	33.87	45.67	63.86
= (1 5 50.1)	Evening Night	12.06%	%90.0	%60.0			ITERLINE	Unmi	Leq Peak Leq Day Leq Eve. Leq Night	65.08	41.66	58.12	62.89
1000	Day	64.96%	1.35%	8.94%	Segment:	ed: 45 MP	FROM CEN		Leg Peak	67.63	61.04	70.62	72.70
,	Daily	92.00%	3.00%	2.00%		Vehicle Speed: 45 MPH	NOISE PARAMETERS AT 55 FEET FROM CENTERLINE		REMELTraffic Adj. Dist Adj. Finite Adj	-1.20	-1.20	-1.20	Total:
VOLUME INTO A RESIDENCY	Night	%09.6	1.50%	2.50%	5		ieters at	ustments	Dist Adj.	-0.10	-0.10	-0.10	
SILISIO INIX	Evening	12.90%	%90.0	0.10%	s Bouleva	25 Vehicles	SE PARAN	Noise Adjustments	raffic Adj.	-0.41	-15.28	-10.22	
•	Day	%05.69	1.44%	2.40%	Glen Oak	raffic: 1572	NON		REMELT	69.34	77.62	82.14	
	Vehicle Type Day Evening	Automobiles 69.50% 12.90%	Medium Trucks 1.44% 0.06%	Heavy Trucks 2.40%	Road Name: Glen Oaks Boulevard	Average Daily Traffic: 15725 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

	Major	0	Ę	CNEL	44	96	206	445
	ification:	istance t	ur (in fee	Ldn (41	83	192	413
	Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		66.81 70 dBA:	49.28 65 dBA:	61.75 60 dBA:	68.05 55 dBA:
	Ä			Ldn CNEL	66.81	49.28		
ılevard		st: 55.42		Ldn	66.18	49.25	61.72	67.57
South of Sunland Boulevard	х: з	(Equiv. Lane Dist: 55.42 ft)	Jumitigated Noise Levels	Leq Night	57.75	43.10	54.89	29.66
South of	Vehicle Mix: 3		itigated №	eq Eve.	63.80	33.89	45.69	63.87
		TERLINE	Unm	Leq Day I	62.09	41.67	58.13	65.91
Segment:	Vehicle Speed: 45 MPH	AT 60 FEET FROM CENTERLINE		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	67.65	61.06	70.64	72.71
	/ehicle Spe	. 60 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:
Þ		ETERS	ustments	. <u></u>	-0.77	-0.77	-0.77	
Bouleva	5 Vehicles	NOISE PARAMETERS	Noise Adjustment	affic Adj.	0.27	-14.59	-9.53	
Glen Oaks	raffic: 1842	SION		REMELTraffic Adj. Dist Ad	69.34	77.62	82.14	
Road Name: Glen Oaks Boulevard	Average Daily Traffic: 18425 Vehicles			Vehicle Type	Automobiles	Medium Trucks 77.62	Heavy Trucks	

Scenario: EXISTING WITH PROJECT ROUTE 5C CONDITIONS

Project: Devil's Gate Reservoir Site Conditions: Soft

						Major	to O	et)	CNEL	27	29	127	275		ondary	t Q	et)	CNEL	30	65	140	303
	Daily	88.27%	2.88%	9.23%		ssification:	Distance 1	our (in fe	Ldn	56	22	119	256		ation: Seco	Distance 1	our (in fe	Ldn	28	61	131	281
Vehicle Mix 3 (Mentworth W-Droject)	Night	9.21% 8	1.44%	2.40%		Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		70 dBA:	65 dBA:	60 dBA:	55 dBA:		Roadway Classification: Secondary	Centerline Distance to	Noise Contour (in feet)		70 dBA:	65 dBA:	60 dBA:	55 dBA:
	Evening	12.38%	%90.0	0.10%		Ro			CNEL	63.05	44.92	58.44	64.39		Roadwa			CNEL	64.30	46.78	59.25	65.54
which Mix	Day E	, %89.99	1.38%	6.74%	enne		st: 60.79 f		Ldn	62.41	44.88	58.41	63.92	levard		st: 54.99 f		Ldn	63.67	46.74	59.22	65.07
	-	85.98% (2.80%	11.37%	East of Wheatland Avenue	k: 2	(Equiv. Lane Dist: 60.79 ft)	Unmitigated Noise Levels	Led Night	53.98	38.73	51.25	55.92	South of Foothill Boulevard	k: 3	(Equiv. Lane Dist: 54.99 ft)	Unmitigated Noise Levels	Led Night	55.24	40.59	52.39	57.15
W 5/18	Night	8.97%	1.40%	2.34%	ast of W	Vehicle Mix: 2	(Eq	tigated N	eq Eve.	60.04	29.52	42.04	60.11	outh of F	Vehicle Mix: 3	(Eq	tigated N	ed Eve.	61.29	31.38	43.18	61.36
4 0 (E00th	Evening	12.06%	%90.0	0.09%			TERLINE	Unmi	Led Day L	61.33	37.30	55.83	62.42			TERLINE	Unmi	Leq Day Leq Eve. Leq Night	62.29	39.16	55.62	63.40
Vebiode Mix 2 (Footbill Blyd W. Dridet)	Day	64.96%	1.35%	8.94%	Segment:	Vehicle Speed: 50 MPH	NOISE PARAMETERS AT 65 FEET FROM CENTERLINE		Leq Peak Leq Day Leq Eve. Leq Night	64.00	56.80	67.11	69.10	Segment:	Vehicle Speed: 45 MPH	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE		Leg Peak	65.14	58.55	68.13	70.20
	Daily	92.00%	3.00%	2.00%		/ehicle Spe	. 65 FEET I		Finite Adj	-1.20	-1.20	-1.20	Total:		/ehicle Spe	. 60 FEET I		Finite Adj	-1.20	-1.20	-1.20	Total:
Volcinot A / V Toriolo)	Night	%09.6	1.50%	2.50%			ETERS AT	ustments	Dist Adj.	-1.38	-1.38	-1.38				ETERS AT	ustments	Dist Adj.	-0.72	-0.72	-0.72	
VIVI Oloido	Evening	12.90%	%90.0	0.10%	oulevard	Vehicles	SE PARAM	Noise Adjustments	affic Adj.	-4.55	-19.41	-13.33		า Street	5 Vehicles	SE PARAM	Noise Adjustments	affic Adj.	-2.28	-17.15	-12.09	
>	Day	69.50%	1.44%	9.00%	Foothill Boulevard	affic: 6925	SION		REMEL Traffic Adj.	71.12	78.79	83.02		Wentworth Street	affic: 1022	SION		REMEL Traffic Adj.	69.34	77.62	82.14	
	Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	Road Name:	Average Daily Traffic: 6925 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks		Road Name:	Average Daily Traffic: 10225 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	•

Scenario: EXISTING WITH PROJECT ROUTE 6A CONDITIONS

	>	ehicle Mix	1 (Arterials	s)	Vehicle №	Aix 2 (Footh	ill Blvd W	Jehicle Mix 2 (Foothill Blvd W-Project) Vehicle Mix 3 (Wentworth W-Project)	Vehicle M	lix 3 (Wen	tworth W.	·Project)
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Day Evenin l	Night	Daily
Automobiles 6	69.50% 12.90%	12.90%	%09.6	92.00%	64.96%	12.06%	8.97%	82.98%	66.68% 12.38% 9.21%	12.38%	9.21%	88.27%
Medium Trucks 1.44%	1.44%	%90.0	1.50%	3.00%	1.35%	%90.0	1.40%	2.80%	1.38%	0.06% 1.44%	1.44%	2.88%
Heavy Trucks 2.40% 0.10%	2.40%	0.10%	2.50%	2.00%	8.94%	%60.0	2.34%	11.37%	6.74%	0.10%	2.40%	9.23%

						Major	to	et)	CNEL	32	9/	163	352
, -S) ·	Daily	88.27%	2.88%	9.23%		Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)	Ldn	33	20	152	327
	Night		0.06% 1.44%	2.40%		adway Cla	Centerline	Noise Cor		60.70 61.33 70 dBA:	43.81 65 dBA:	56.28 60 dBA:	55 dBA:
	Evenin Night	12.38%		0.10% 2.40%	sdu	R			CNEL	61.33			62.10 62.57
	Day	66.68% 12.38% 9.21%	1.38%	6.74%	ound Rar		ist: 107.5		Ldn	60.70	43.78	56.25	62.10
	Daily	82.98%	2.80%	11.37%	South of I-210 Westbound Ramps	x: 3	(Equiv. Lane Dist: 107.57 ft)	Unmitigated Noise Levels	Led Night	52.27	37.62	49.42	54.18
	Night	8.97%	1.40%	2.34%	South of I	Vehicle Mix: 3		tigated N	ed Eve.	58.33	28.41	40.21	58.40
= (1 000	Evening Night	12.06%	%90.0	0.09%			VTERLINE	Unmi	Led Day L	59.65	36.19	52.66	60.43
	Day	64.96%	1.35%	8.94%	Segment:	Vehicle Speed: 45 MPH	AT 110 FEET FROM CENTERLINE		Leg Peak	62.17	55.58	65.16	67.24
,	Daily	92.00%	3.00%	2.00%		Vehicle Spe	110 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:
	Night	%09.6	1.50%	2.50%			TERS AT	nstments.	Dist Adj.	-5.09	-5.09	-5.09	
	Evening	12.90%	%90.0	0.10%	Soulevard	25 Vehicles	NOISE PARAMETERS /	Noise Adjustments	REMELTraffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	-0.88	-15.75	-10.68	
	Day	69.50%	1.44%	2.40%	Foothill E	affic: 1412	SION		REMELT	69.34	77.62	82.14	
	Vehicle Type Day Evening	Automobiles 69.50% 12.90%	Medium Trucks 1.44% 0.06%	Heavy Trucks 2.40% 0.10%	Road Name: Foothill Boulevard	Average Daily Traffic: 14125 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

	Major	to	et)	CNEL	32	69	148	318
	sification:	Jistance	our (in fe	Ldn CNEL	30	64	138	297
	Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		64.36 70 dBA:	47.51 65 dBA:	60.31 60 dBA:	65.87 55 dBA:
	Ŗ	ft)		Ldn CNEL	64.36		60.31	
vard		t: 55.42		Ldn	63.73	47.48	60.28	65.42
West of Foothill Boulevard	ix: 3	(Equiv. Lane Dist: 55.42 ft)	Jnmitigated Noise Levels	Leq Night	55.30	41.32	53.45	57.59
Vest of F	Vehicle Mix: 3		itigated N	ed Eve.	61.35	32.12	44.24	61.44
	,	TERLINE	Unm	Leq Day I	62.65	39.90	56.69	63.65
Segment:	Vehicle Speed: 40 MPH	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE		Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	65.20	59.29	69.19	96.02
	/ehicle Spo	- 60 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:
		ETERS AT	stments	Dist Adj.	-0.77	-0.77	-0.77	
treet	5 Vehicles	E PARAM	Noise Adjustmei	REMEL Traffic Adj. Dist A	-0.19	-15.05	-9.99	
Osborne S	raffic: 1472	SION		REMELTR	98'.29	76.31	81.16	
Road Name: Osborne Street	Average Daily Traffic: 14725 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

	ın: Major	e to	feet)	CNEL	24	117	251	541
	sificatic	Distano	our (in	Ldn	20	108	233	503
	Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		68.09 70 dBA:	50.56 65 dBA:	63.03 60 dBA:	68.85 69.32 55 dBA:
	X			Ldn CNEL	68.09	50.56	63.03	69.32
*		: 55.42		Ldn	67.46	50.53	63.00	68.85
South of Osborne Street	x: 3	(Equiv. Lane Dist: 55.42 ft)	Unmitigated Noise Levels	Led Night	59.02	44.37	56.17	60.94
outh of (Vehicle Mix: 3) (Ec	tigated N	ed Eve.	65.08	35.16	46.96	65.15
		TERLINE	Unmi	eq Day L	66.37	42.95	59.41	67.18
Segment:	Vehicle Speed: 45 MPH	AT 60 FEET FROM CENTERLINE		Leq Peak 1	68.92	62.33	71.91	73.99
	Vehicle Spe	r 60 feet f		Finite Adj	-1.20	-1.20	-1.20	Total:
70		ETERS AT	stments	Dist Adj.	-0.77	-0.77	-0.77	
s Boulevar	25 Vehicles	NOISE PARAMETERS	Noise Adjustment	REMELTraffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	1.55	-13.31	-8.25	
Glen Oak	affic: 247;	ION		REMELT	69.34	77.62	82.14	
Road Name: Glen Oaks Boulevard	Average Daily Traffic: 24725 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

Scenario: EXISTING WITH PROJECT ROUTE 6B CONDITIONS

Project: Devil's Gate Reservoir e Conditions: Soft	æ	Ī.	%	٠,٥	ا。
l's Gate Soft	'-Project	Daily	88.27%	2.88%	9.23%
Project: Devil's Ga Site Conditions: Soft	tworth W	Night	9.21%	1.44%	2.40%
Proje Site Con	Vehicle Mix 3 (Wentworth W-Project)	Evenin	12.38%	%90.0	0.10%
	Vehicle IV	Day	%89.99	1.38%	6.74%
	/-Project)	Daily	82.98%	2.80%	11.37%
	III Blvd W	Night	8.97%	1.40%	2.34%
	Jehicle Mix 2 (Foothill Blvd W-Project)	Evening	12.06%	%90.0	%60.0
CONDITIONS	Vehicle N	Day	64.96%	1.35%	8.94%
6B COND	s)	Daily	92.00%	3.00%	2.00%
T ROUTE	1 (Arterials)	Night	%09.6	1.50%	2.50%
H PROJEC	Vehicle Mix 1 (Arter	Evening	12.90%		0.10%
TING WIT		Day	69.50%	1.44%	2.40%
Scenario: EXISTING WITH PROJECT ROUTE 6B C		Vehicle Type Day Evening Night	Automobiles	Medium Trucks 1.44% 0.06%	Heavy Trucks 2.40% 0.10%

Road Name: Glen Oaks Boulevard Average Daily Traffic: 15725 Vehicles NOISE PARAMET	ulev:	rers tmen	Vehicle Sp T 55 FEET	Segment: Segment: Vehicle Speed: 45 MPH AT 55 FEET FROM CENTERLINE te	ent: H ATERLINE	South (South of Penrose Street Vehicle Mix: 3 LINE (Equiv. Lane Dist: 49.96 ft)	et t: 49.96		Roadway Classification: Major Centerline Distance to	Ssification Distance	n: Major s to
REMELTraffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	Dist Adj. Fi	這	nite Adj	Leg Peak	Leq Day	Led Eve.	Leq Night	Ldn	Ldn CNEL		Ldn CNEL	
69.34 -0.41 -0.10			-1.20	69'29	65.08	63.79	57.73	66.17	66.80	66.80 70 dBA:	38	41
Medium Trucks 77.62 -15.28 -0.10	-0.10		-1.20	61.04	41.66	33.87	43.08	49.24		49.27 65 dBA:	8	88
-10.22 -0.10	-0.10	'	-1.20	70.62	58.12	45.67	54.88	61.71	61.74	61.74 60 dBA:	176	189
Ĭ	ľ	Ĕ	Fotal:	72.70	62.89	63.86	59.64	67.56	68.03	55 dBA:	378	407
Glen Oaks Boulevard	ard			Segment:		South of	South of Sunland Boulevard	evard				

Major	to	et)	CNEL	44	96	206	445					
sification:	Distance	our (in fe	Ldn	41	83	192	413					
Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		66.81 70 dBA:	49.28 65 dBA:	61.75 60 dBA:	68.05 55 dBA:					
R			CNEL		49.28		68.05					
	t: 55.42		Ldn	66.18	49.25	61.72	67.57					
x: 3	(Equiv. Lane Dist: 55.42 ft)	Jnmitigated Noise Levels	Leq Night	57.75	43.10	54.89	29.66					
Vehicle Mix: 3		itigated N	ed Eve.	63.80	33.89	45.69	63.87					
\ 	TERLINE	Unm	Leq Day I	62.09	41.67	58.13	65.91					
Vehicle Speed: 45 MPH	FROM CEN		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	67.65	61.06	70.64	72.71					
/ehicle Spe	TERS A		Finite Adj	-1.20	-1.20	-1.20	Total:					
		AMETERS AT	AMETERS A	RAMETERS AT	RAMETERS AT	AMETERS AT	ustments		-0.77	-0.77	-0.77	
5 Vehicles		SE PARAMETERS Noise Adjustment		REMELTraffic Adj. Dist Adj	0.27	-14.59	-9.53					
raffic: 1842	SION		REMELTr	69.34	77.62	82.14						
Average Daily Traffic: 18425 Vehicles			Vehicle Type	Automobiles	Medium Trucks 77.62	Heavy Trucks	-					

Scenario: EXISTING WITH PROJECT ROUTE 6C CONDITIONS

												;
		Vehicle Mix 1 (A	1 (Arterials)	s)	Vehicle N	Vehicle Mix 2 (Foothill Blvd W-Project)	nill Blvd W	'-Project)	Vehicle Mix 3 (Wentworth W-Project)	1ix 3 (Wen	tworth W	-Project)
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evening	Night	Daily
Automobiles	%05.69	69.50% 12.90%	%09.6	92.00%	64.96%	12.06%	8.97%	82.98%	%89.99	12.38% 9.21%	9.21%	88.27%
Medium Trucks 1.44%		%90.0	1.50%	3.00%	1.35%	%90.0	1.40%	2.80%	1.38%	%90.0	1.44%	2.88%
Heavy Trucks 9.00% 0.10%	%00.6	0.10%	2.50%	2.00%	8.94%	0.09%	2.34%	11.37%	6.74%	0.10%	2.40%	9.23%

	Major	to	et)	CNEL	27	29	127	275									
	sification:	Distance	our (in fe	Ldn	56	22	119	256									
	Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		63.05 70 dBA:	65 dBA:	60 dBA:	55 dBA:									
	쪼	ft)		Ldn CNEL	63.05	44.92	58.44	64.39									
enu		: 60.79		Ldn	62.41	44.88	58.41	63.92									
East of Wheatland Avenue	x: 2	(Equiv. Lane Dist: 60.79 ft)	Unmitigated Noise Levels	Leq Night	53.98	38.73	51.25	55.92									
ast of W	Vehicle Mix: 2		tigated N	ed Eve.	60.04	29.52	42.04	60.11									
		TERLINE	Unmi	eq Day 1-	61.33	37.30	55.83	62.42									
Segment:	ehicle Speed: 50 MPH	65 FEET FROM CENTERLINE		REMEL Traffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	64.00	56.80	67.11	69.10									
	Vehicle Spe			Finite Adj	-1.20	-1.20	-1.20	Total:									
		ETERS AT	METERS AT	METERS AT	IETERS AT	IETERS AT	1 ETERS A ⁻	METERS A	METERS A [·]	NOISE PARAMETERS AT	METERS AT	stments	Dist Adj.	-1.38	-1.38	-1.38	
oulevard	Vehicles	SE PARAM	Noise Adjustments	affic Adj.	-4.55	-19.41	-13.33										
Foothill Boulevard	affic: 6925	NOISI	REMELTr	71.12	78.79	83.02											
Road Name:	Average Daily Traffic: 6925 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	1									

	ondary	to	et)	CNEL	30	65	140	303										
	tion: Seco	Distance	our (in fe	Ldn	28	61	131	281										
	Roadway Classification: Secondary	Centerline Distance to	Noise Contour (in feet)		64.30 70 dBA:	46.78 65 dBA:	60 dBA:	65.54 55 dBA:										
	Roadwa	(Ldn CNEL	64.30	46.78	59.25	65.54										
vard		: 54.99 f		Ldn	63.67	46.74	59.22	65.07										
South of Foothill Boulevard	x: 3	(Equiv. Lane Dist: 54.99 ft	Jumitigated Noise Levels	Leq Night	55.24	40.59	52.39	57.15										
South of F	Vehicle Mix: 3	(Ed	itigated N	ed Eve.	61.29	31.38	43.18	61.36										
		TERLINE	Unmi	Led Day 1	62.29	39.16	55.62	63.40										
Segment:	'ehicle Speed: 45 MPH	60 FEET FROM CENTERLINE		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	65.14	58.55	68.13	70.20										
	/ehicle Spe			Finite Adj	-1.20	-1.20	-1.20	Total:										
	_			E PARAMETERS AT	E PARAMETERS AT	E PARAMETERS AT	SE PARAMETERS A T	SE PARAMETERS AT	SE PARAMETERS A ^T	SE PARAMETERS AT	NOISE PARAMETERS AT	E PARAMETERS AT	stments	Dist Adj.	-0.72	-0.72	-0.72	
ו Street	5 Vehicles												E PARAME	E PARAME	E PARAME	E PARAME	E PARAME	E PARAME
Wentworth	affic: 1022	SION		REMEL Traffic Adj. Dist Adj.	69.34	77.62	82.14											
Road Name: Wentworth Street	Average Daily Traffic: 10225 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks											

Scenario: EXISTING WITH PROJECT ROUTE 7A CONDITIONS

		Vehicle Mix	1 (Arterials	(S)	Vehicle N	Vehicle Mix 2 (Foothill Blvd W-Project)	nill Blvd W	'-Project)	Vehicle Mix 3 (Wentworth W-Project)	lix 3 (Wen	tworth W	'-Project)
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	%06 [°] 21 %05 [°] 69	12.90%	%09.6	92.00%	64.96%	12.06%	8.97%	82.98%	%89.99	12.38% 9.2	9.21%	88.27%
Medium Trucks 1.44% 0.06%	1.44%	%90.0	1.50%	3.00%	1.35%	%90.0	1.40%	2.80%	1.38%	%90:0	1.44%	2.88%
Heavy Trucks 2.40% 0.10%	2.40%	0.10%	2.50%	2.00%	8.94%	%60.0	2.34%	11.37%	6.74%	0.10%	2.40%	9.23%

	: Major	to to	eet)	CNEL	35	9/	163	352							
	sification	Distance	our (in f	Ldn	33	20	152	327							
	Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		61.33 70 dBA:	43.81 65 dBA:	56.28 60 dBA:	62.10 62.57 55 dBA:							
sdı	R			Ldn CNEL	61.33	43.81		62.57							
nd Ran		: 107.5		Ldn	02.09	43.78	56.25	62.10							
South of I-210 Westbound Ramps	x: 3	(Equiv. Lane Dist: 107.57 ft)	Jnmitigated Noise Levels	Leq Night	52.27	37.62	49.42	54.18							
outh of I	Vehicle Mix: 3) (Ec	igated N	ed Eve.	58.33	28.41	40.21	58.40							
		ITERLINE	Unmit	Leq Day L	59.62	36.19	52.66	60.43							
Segment:	ed: 45 MPI	-ROM CEN		Leg Peak	62.17	55.58	65.16	67.24							
	Vehicle Speed: 45 MPH	NOISE PARAMETERS AT 110 FEET FROM CENTERLINE		Finite Adj	-1.20	-1.20	-1.20	Total:							
			TERS	TERS	TERS	E PARAMETERS AT	E PARAMETERS AT	E PARAMETERS AT	E PARAMETERS AT 1	ustments	Dist Adj.	-5.09	-5.09	-5.09	
Foothill Boulevard	25 Vehicles									E PARAMET	Noise Adjustmen	REMELTraffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	-0.88	-15.75	-10.68
Foothill E	affic: 1412			REMELT	69.34	77.62	82.14								
Road Name:	Average Daily Traffic: 14125 Vehicles			Vehicle Type	Automobiles	Medium Trucks 77.62	Heavy Trucks	•							

	Major	o S	et)	CNEL	32	69	148	318																					
	sification:	istance	our (in fe	Ldn	30	64	138	297																					
	Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		64.36 70 dBA:	47.51 65 dBA:	60 dBA:	65.87 55 dBA:																					
	ŭ	ft)		Ldn CNEL	64.36	47.51	60.31	65.87																					
ard		55.42		Ldn	63.73	47.48	60.28	65.42																					
West of Foothill Boulevard	x: 3	(Equiv. Lane Dist: 55.42 ft)	Jnmitigated Noise Levels	Led Night	55.30	41.32	53.45	57.59																					
Nest of F	Vehicle Mix: 3		itigated N	ed Eve.	61.35	32.12	44.24	61.44																					
		TERLINE	Unm	eq Day I	62.65	39.90	56.69	63.65																					
Segment:	Vehicle Speed: 40 MPH	FROM CEN		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	65.20	59.29	69.19	96.07																					
	/ehicle Spe	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE	ETERS		Finite Adj	-1.20	-1.20	-1.20	Total:																				
				ETERS	ETERS	ETERS	ETERS	ETERS	ETERS	ETERS	ETERS	ETERS	ETERS	METERS AT	ETERS	METERS AT	ETERS	ETERS	ETERS	METERS AT	METERS AT	METERS AT	METERS AT	nstments		-0.77	-0.77	-0.77	
Street	5 Vehicles										Noise Adjustments	REMEL Traffic Adj. Dist Ad	-0.19	-15.05	-9.99														
Osborne (raffic: 1472					REMELT		76.31	81.16																				
Road Name: Osborne Street	Average Daily Traffic: 14725 Vehicles			Vehicle Type	Automobiles	Medium Trucks 76.31	Heavy Trucks																						

	: Major	to	et)	CNEL	24	117	251	541																					
	ssification	Distance	our (in fe	Ldn	20	108	233	503																					
	Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		68.09 70 dBA:	50.56 65 dBA:	63.03 60 dBA:	69.32 55 dBA:																					
	Ä	ft)		Ldn CNEL		50.56	63.03	69.32																					
et		: 55.42		Ldn	67.46	50.53	63.00	68.85																					
South of Osborne Street	x: 3	(Equiv. Lane Dist: 55.42 ft)	Jnmitigated Noise Levels	Leq Night	59.02	44.37	56.17	60.94																					
outh of (Vehicle Mix: 3	E(igated N	eq Eve.	65.08	35.16	46.96	65.15																					
		ITERLINE	Unmi	Led Day L	66.37	42.95	59.41	67.18																					
Segment:	ed: 45 MPI	-ROM CEN		Leq Peak	68.92	62.33	71.91	73.99																					
	Vehicle Speed: 45 MPH	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE	SE PARAMETERS AT 60 FEET		REMEL Traffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	-1.20	-1.20	-1.20	Total:																				
ģ				SE PARAMETERS AT (SE PARAMETERS AT	SE PARAMETERS AT	SE PARAMETERS A'	SE PARAMETERS A	SE PARAMETERS A'	SE PARAMETERS AT	E PARAMETERS AT	E PARAMETERS AT	METERS A	METERS A	METERS AT	METERS AT	METERS AT	METERS AT	METERS AT	METERS A.	METERS A 1	IETERS A	ETERS AT	ustments	Dist Adj.	-0.77	-0.77	-0.77	
s Boulevar	25 Vehicles												Noise Adjustments	raffic Adj.	1.55	-13.31	-8.25												
Glen Oak	raffic: 2472			REMELT	69.34	77.62	82.14																						
Road Name: Glen Oaks Boulevard	Average Daily Traffic: 24725 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks																						

Scenario: EXISTING WITH PROJECT ROUTE 7B CONDITIONS

nario: EAIS	בו פ פ	Scenario: EXISTING WITH PROJECT ROUT	I ROUIE	LE 7B CONDITIONS	SNO					Proje Site Con	Project: Devil's Ga Site Conditions: Soft	Project: Devil's Gate Reservoil e Conditions: Soft
		Vehicle Mix 1 (Arteria	1 (Arterials)	s)	Vehicle N	Vehicle Mix 2 (Foothill Blvd W-Project)	nill Blvd W	/-Project)	Vehicle N	/ehicle Mix 3 (Wentworth W-Project)	worth W	-Project)
le Type	Day	Vehicle Type Day Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
piles	vutomobiles 69.50% 12.90%	12.90%	%09.6	92.00%	64.96%	12.06%	8.97%	82.98%	%89.99	12.38%	9.21%	88.27%
η Trucks	1.44%	Aedium Trucks 1.44% 0.06%	1.50%	3.00%	1.35%	%90.0	1.40%	2.80%	1.38%	%90.0	1.44%	2.88%
Trucks	2.40%	Heavy Trucks 2.40% 0.10%	2.50%	2.00%	8.94%	0.09%	2.34%	11.37%	6.74%	0.10%	2.40%	9.23%

/ajor		t	CNEL	41	88	189	407
sification:	Distance to	our (in fee	Cdn	38	81	176	378
Roadwav Classification: Maior	Centerline Distance to	Noise Contour (in feet)		66.80 70 dBA:	49.27 65 dBA:	61.74 60 dBA:	68.03 55 dBA:
8			CNEL	08.99	49.27	61.74	68.03
_	49.96		Ldn	66.17	49.24	61.71	95'29
South of Penrose Street Vehicle Mix: 3	(Equiv. Lane Dist: 49.96 ft	nmitigated Noise Levels		57.73	43.08	54.88	59.64
South of Penr Vehicle Mix: 3	(Ec	igated N	ed Eve.	63.79	33.87	45.67	63.86
ı:	TERLINE	Unmit	ed Day L	65.08	41.66	58.12	62.89
Segment: Vehicle Speed: 45 MPH	AT 55 FEET FROM CENTERLINE		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	67.63	61.04	70.62	72.70
/ehicle Spe	. 55 FEET I		Finite Adj	-1.20	-1.20	-1.20	Total:
·	ETERS	AETERS AT justments	<u>.</u>	-0.10	-0.10	-0.10	
s Boulevar 25 Vehicles	NOISE PARAMETERS	Noise Adjustment	REMEL Traffic Adj. Dist Ad	-0.41	-15.28	-10.22	
Glen Oak raffic: 1572	SION			69.34	77.62	82.14	
Road Name: Glen Oaks Boulevard Average Daily Traffic: 15725 Vehicles			Vehicle Type	Automobiles	Medium Trucks 77.62	Heavy Trucks	

	Major	o.	æ()	CNEL	44	96	206	445																		
	sification:	istance (our (in fe	Ldn (41	83	192	413																		
	Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		66.81 70 dBA:	49.28 65 dBA:	61.75 60 dBA:	68.05 55 dBA:																		
	R			Ldn CNEL	66.81	49.28																				
levard		st: 55.42		Ldn	66.18	49.25	61.72	67.57																		
South of Sunland Boulevard	x: 3	(Equiv. Lane Dist: 55.42 ft)	Jumitigated Noise Levels	Leq Night	57.75	43.10	54.89	29.66																		
outh of	Vehicle Mix: 3	E(tigated №	eq Eve.	63.80	33.89	45.69	63.87																		
		TERLINE	Unmi	eq Day L	62.09	41.67	58.13	65.91																		
Segment:	Vehicle Speed: 45 MPH	-ROM CEN		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	67.65	61.06	70.64	72.71																		
	Vehicle Spe	E PARAMETERS AT 60 FEET FROM CENTERLINE		Finite Adj	-1.20	-1.20	-1.20	Total:																		
P			ETERS	ETERS	ETERS	ETERS	ETERS	ETERS	ETERS	ETERS		ETERS									justments	. <u></u>	-0.77	-0.77	-0.77	
Boulevar	5 Vehicles												Noise Adjustment	REMEL Traffic Adj. Dist Ad	0.27	-14.59	-9.53									
Glen Oaks	raffic: 1842	SION		REMELTr	69.34	77.62	82.14																			
Road Name: Glen Oaks Boulevard	Average Daily Traffic: 18425 Vehicles			Vehicle Type	Automobiles	Medium Trucks 77.62	Heavy Trucks																			

Scenario: EXISTING WITH PROJECT ROUTE 7C CONDITIONS

Project: Devil's Gate Reservoir Site Conditions: Soft

												;
		Vehicle Mix 1 (1 (Arterials	ls)	Vehicle I	/ehicle Mix 2 (Foothill Blvd W-Project) Vehicle Mix 3 (Wentworth W-Project)	hill Blvd W	/-Project)	Vehicle №	1ix 3 (Wen	tworth W	-Project)
Vehicle Type Day	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Day Evening Night	Night	Daily
Automobiles	%05.69	69.50% 12.90%	%09.6	92.00%	32.00% 64.96%	% 12.06% 8.	8.97%	82.98%	66.68% 12.38% 9.21%	12.38%	9.21%	88.27%
Medium Trucks 1.44% 0.06%	1.44%		1.50%	3.00%	1.35%	%90.0	1.40%	2.80%	1.38%	0.06% 1.44%		2.88%
Heavy Trucks 9.00% 0.10%	8.00.6		2.50%	2.00%	8.94%	0.09%	2.34%	11.37%	6.74%	0.10%	2.40%	9.23%

	Major	to	et)	CNEL	27	29	127	275
	sification	Distance	our (in fe	Ldn	56	22	119	256
	Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		63.05 70 dBA:	44.92 65 dBA:	60 dBA:	55 dBA:
	X	t)		CNEL	63.05	44.92	58.44	64.39
nue		t: 60.79 f		Ldn (62.41	44.88	58.41	63.92
East of Wheatland Avenue	x: 2	(Equiv. Lane Dist: 60.79 ft)	Unmitigated Noise Levels	Led Night	53.98	38.73	51.25	55.92
East of W	Vehicle Mix: 2		itigated №	Led Eve.	60.04	29.52	42.04	60.11
	_	TERLINE	Unm	Led Day	61.33	37.30	55.83	62.42
Segment:	Vehicle Speed: 50 MPH	65 FEET FROM CENTERLINE		REMEL Traffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	64.00	56.80	67.11	69.10
	Vehicle Spe	T 65 FEET I		Finite Adj	-1.20	-1.20	-1.20	Total:
		ETERS A'	Noise Adjustments	Dist Adj.	-1.38	-1.38	-1.38	
oulevard	Vehicles	NOISE PARAMETERS AT		affic Adj.	-4.55	-19.41	-13.33	
Foothill Boulevard	affic: 6925	SION		REMELT	71.12	78.79	83.02	
Road Name:	Average Daily Traffic: 6925 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	•

ondary	to	et)	CNEL	30	65	140	303
ition: Sec	Distance	our (in fe	Ldn	28	61	131	281
Roadway Classification: Secondary	Centerline Distance to	Noise Contour (in feet)		64.30 70 dBA:	46.78 65 dBA:	60 dBA:	65.54 55 dBA:
Roadw			CNEL	64.30	46.78	59.25	65.54
	: 54.99 f		Ldn	63.67	46.74	59.22	65.07
x: 3	(Equiv. Lane Dist: 54.99 ft)	Unmitigated Noise Levels	Leq Night	55.24	40.59	52.39	57.15
Vehicle Mix: 3		itigated N	Led Eve.	61.29	31.38	43.18	61.36
	TERLINE	Unm	Led Day	62.29	39.16	55.62	63.40
/ehicle Speed: 45 MPH	60 FEET FROM CENTERLINE		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	65.14	58.55	68.13	70.20
/ehicle Spe	. 60 FEET F		Finite Adj	-1.20	-1.20	-1.20	Total:
\sim \sim	_	ustments		-0.72	-0.72	-0.72	
5 Vehicles	NOISE PARAMETERS A '	Noise Adjustments	REMEL Traffic Adj. Dist Adj.	-2.28	-17.15	-12.09	
affic: 1022	SION		REMEL Tr	69.34	77.62	82.14	
Average Daily Traffic: 10225 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	•

South of Foothill Boulevard

Segment:

Road Name: Wentworth Street

Scenario: EXISTING WITH PROJECT ROUTE 8A CONDITIONS

Project: Devil's Gate Reservoir Site Conditions: Soft

		Vehicle Mix 1 (A	1 (Arterials	s)	Vehicle	/ehicle Mix 2 (Foothill Blvd W-Project)	w b∨ld Ilir	/-Project)	Vehicle №	Vehicle Mix 3 (Wentworth W-Project)	tworth W.	·Project)
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day Evening	Evening	Night	Daily
Automobiles (%05.69	69.50% 12.90%	%09.6	92.00%	64.96%	12.06%	8.97%	82.98%	%89.99	12.38% 9.21%	9.21%	88.27%
Medium Trucks 1.44% 0.06% 1.50	1.44%	0.06%	1.50%	3.00%	1.35%	%90.0	1.40%	2.80%	2.80% 1.38%	%90.0	0.06% 1.44% 2.88%	2.88%
Heavy Trucks 2.40% 0.10%	2.40%		2.50%	2.00%	8.94%	%60.0	2.34%	11.37%	6.74%	0.10%	2.40%	9.23%

	ndary	Q	∋t)	CNEL	22	48	104	224		
	tion: Seco	Jistance	our (in fe	Ldn	21	42	86	211		
	Roadway Classification: Secondary	Centerline Distance to	Noise Contour (in feet)		62.92 70 dBA:	46.83 65 dBA:	60 dBA:	55 dBA:		
<u>r</u>	Roadw			Ldn CNEL	62.92	46.83	00.09	64.78		
Bouleva		43.86		Ldn	62.29	46.80	29.97	64.37		
East of Laurel Canyon Boulevard	x: 3	(Equiv. Lane Dist: 43.86 ft)	Jnmitigated Noise Levels	Led Night	53.86	40.65	53.14	56.64		
ast of La	Vehicle Mix: 3) (Ec	tigated N	ed Eve.	59.91	31.44	43.94	60.03		
		TERLINE	Unmi	Led Day 1	61.20	39.22	56.38	62.46		
Segment:	ehicle Speed: 35 MPH	50 FEET FROM CENTERLINE		REMEL Traffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	92.29	58.61	68.89	70.35		
	ehicle Spe	50 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:		
	~	ETERS AT	ıstments	Dist Adj.	0.75	0.75	0.75			
Street	5 Vehicles	NOISE PARAMETERS AT	Noise Adjustments	Noise Adju	Noise Adju	raffic Adj.	-0.90	-15.77	-10.71	
Branford Street	raffic: 1092	ION		REMELT	65.11	74.83	80.05			
Road Name:	Average Daily Traffic: 10925 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks			

condary	to	eet)	CNEL	23	20	107	231
ation: Sec	Distance	our (in f	Ldn	22	47	101	217
Roadway Classification: Secondary	Centerline Distance to	Noise Contour (in feet)		61.39 70 dBA:	45.31 65 dBA:	58.48 60 dBA:	63.26 55 dBA:
Roadw			CNEL	61.39	45.31	58.48	63.26
	it: 60.41		Ldn	92.09	45.27	58.45	62.84
ix: 3	(Equiv. Lane Dist: 60.41 ft)	Unmitigated Noise Levels	Leq Night	52.33	39.12	51.62	55.11
Vehicle Mix: 3	(Ec	tigated №	ed Eve.	58.38	29.91	42.41	58.50
	TERLINE	Unmi	Led Day 1	29.68	37.69	54.85	60.93
/ehicle Speed: 35 MPH	65 FEET FROM CENTERLINE		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	62.23	57.08	67.36	68.82
Vehicle Spe	r 65 feet i		Finite Adj	-1.20	-1.20	-1.20	Total:
	>ı∟ı	stments		-1.34	-1.34	-1.34	
5 Vehicles	NOISE PARAMETERS A ⁻	Noise Adjustments	REMEL Traffic Adj. Dist Adj.	-0.34	-15.21	-10.15	
affic: 1242	SION		REMELT	65.11	74.83	80.05	
Average Daily Traffic: 12425 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	•

West of Laurel Canyon Boulevard

Segment:

Branford Street

Road Name:

Scenario: EXISTING WITH PROJECT ROUTE 8B CONDITIONS

								Major	<u>ا</u> 1	et)	CNEL	41	88	190	410		Major	5	et)	CNEL	31	99	142	305		ondary	2	et)	CNEL	22	48	104	224
oft	roject)	Daily	88.27%	2.88%	9.23%			ssification:	Distance	tour (in fe	Ldn	38	83	179	385		ssification:	Distance	tour (in fe	Ldn	59	62	133	287		ation: Seco	Distance	tour (in fe	Ldn	21	45	86	211
Site Conditions: Soft	Vehicle Mix 3 (Wentworth W-Project)	Night	9.21%	1.44%	2.40%			Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		70 dBA:	65 dBA:	60 dBA:	55 dBA:		Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		70 dBA:	65 dBA:	60 dBA:	55 dBA:		Roadway Classification: Secondary	Centerline Distance to	Noise Contour (in feet)		70 dBA:	65 dBA:	60 dBA:	55 dBA:
Site Cor	x 3 (Wen	Evening	12.38%	%90.0	0.10%			8			CNEL	63.39	47.31	60.47	65.25		R			CNEL	63.74	47.65	60.82	65.60	ard	Roadwa	1#		CNEL	62.92	46.83	60.00	64.78
	ehicle Mi	Day	%89.99	1.38%	6.74%		d Ramps		st: 81.83 ft)		Ldn	62.76	47.27	60.44	64.84	et		st: 55.42 ft)		Ldn	63.10	47.62	60.79	65.19	Bouleva		43.86		Ldn	62.29	46.80	59.97	64.37
	ŀ	Daily	82.98%	2.80%	11.37%]	East of I-5 Northbound Ramps	ჯ: ჯ	Equiv. Lane Dist:	Unmitigated Noise Levels	Led Night	54.33	41.12	53.61	57.11	South of Osborne Street	რ:x	(Equiv. Lane Dist:	Unmitigated Noise Levels	Leq Night	54.67	41.46	53.96	57.45	East of Laurel Canyon Boulevard	რ:x	Equiv. Lane Dist:	Unmitigated Noise Levels	Leq Night	53.86	40.65	53.14	56.64
:	II Blvd W.	Night	8.97%	1.40%	2.34%		ast of I-5	Vehicle Mix: 3	(Ec	tigated N	Led Eve.	60.38	31.91	44.41	60.50	outh of (Vehicle Mix: 3) (Ec	tigated N	eq Eve.	60.73	32.25	44.75	60.84	ast of La	Vehicle Mix: 3	(Ec	tigated N	Leg Eve.	59.91	31.44	43.94	60.03
. !	Vehicle Mix 2 (Foothill Blvd W-Project)	Evening	12.06%	%90.0	%60.0				VTERLINE	Unmi	Led Day L	61.67	39.69	56.85	62.93			NTERLINE	Unmi	Leq Day Leq Eve.	62.02	40.04	57.20	63.28	_		VTERLINE	Unmi	Led Day L	61.20	39.22	56.38	62.46
:	Vehicle M	Day	64.96%	1.35%	8.94%		Segment:	Vehicle Speed: 35 MPH	85 FEET FROM CENTERLINE		Leq Peak	64.23	59.08	69.36	70.82	Segment:	Vehicle Speed: 35 MPH	FROM CENTERLINE		Leq Peak	64.57	59.42	69.70	71.17	Segment:	Vehicle Speed: 35 MPH	50 FEET FROM CENTERLINE		Leg Peak	92.29	58.61	68.89	70.35
		Daily	92.00%	3.00%	2.00%			Vehicle Sp			Finite Adj	-1.20	-1.20	-1.20	Total:		Vehicle Sp	T 60 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:		Vehicle Sp	T 50 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:
:	1 (Arterials	Night	%09.6	1.50%	2.50%				1ETERS A	ustments	Dist Adj.	-3.31	-3.31	-3.31		levard		1ETERS A	ustments	Dist Adj.	-0.77	-0.77	-0.77				1ETERS A	ustments	Dist Adj.	0.75	0.75	0.75	
	Vehicle Mix 1 (Arterials)	Evening	12.90%	%90.0	0.10%		Street	5 Vehicles	NOISE PARAMETERS AT	Noise Adjustments	REMEL Traffic Adj.	3.63	-11.24	-6.18		Laurel Canyon Boulevard	5 Vehicles	NOISE PARAMETERS AT	Noise Adjustments	REMEL Traffic Adj.	1.44	-13.43	-8.37		Street	5 Vehicles	NOISE PARAMETERS AT	Noise Adjustments	raffic Adj.	06'0-	-15.77	-10.71	
		Day	%05.69	1.44%	2.40%		Osborne Street	raffic: 3102	ION		REMELT	65.11	74.83	80.05		Laurel Ca	raffic: 1872	SION		REMELT	65.11	74.83	80.05		Branford Street	raffic: 1092	SION		REMEL Traffic Adj.	65.11	74.83	80.05	
	-	Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	•	Road Name:	Average Daily Traffic: 31025 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks		Road Name:	Average Daily Traffic: 18725 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks		Road Name:	Average Daily Traffic: 10925 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	

Scenario: EXISTING WITH PROJECT ROUTE 8C CONDITIONS

											one conditions, son	1100
		Vehicle Mix 1 (A	1 (Arterials	s)	Vehicle №	/ehicle Mix 2 (Foothill Blvd W-Project) Vehicle Mix 3 (Wentworth W-Project)	nill Blvd W	/-Project)	Vehicle N	1ix 3 (Wen	tworth W.	Project)
Vehicle Type Day	Day	/ Evening N	Night	Daily	Day	Evening	Night	Daily	Day	Evening	Night	Daily
Automobiles	%05.69	69.50% 12.90%	%09.6	92.00%	64.96%	12.06%	8.97%	82.98%	%89.99	, 12.38% 9.21%	9.21%	88.27%
Medium Trucks 1.44% 0.06% 1.50%	1.44%	0.06%	1.50%	3.00%	1.35%	%90.0	1.40%	2.80%	1.38%	0.06%	.44%	2.88%
Heavy Trucks 9.00% 0.10%	%00.6		2.50%	2.00%	8.94%	%60.0	2.34%	11.37%	6.74%	6.74% 0.10%	2.40%	9.23%

	: Major	to	et)	CNEL	27	29	127	275		ondary
	sification	Distance	our (in fe	Ldn CNEL	56	22	119	256		tion: Sec
	Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		63.05 70 dBA:	44.92 65 dBA:	58.44 60 dBA:	55 dBA:		Roadway Classification: Secondary
	X			Ldn CNEL	63.05	44.92	58.44	64.39		Roadw
enne		st: 60.791		Ldn	62.41	44.88	58.41	63.92	levard	
East of Wheatland Avenue	ix: 2	(Equiv. Lane Dist: 60.79 ft)	Unmitigated Noise Levels	Led Night	53.98	38.73	51.25	55.92	South of Foothill Boulevard	х: з
East of W	Vehicle Mix: 2		itigated №	Led Eve.	60.04	29.52	42.04	60.11	South of	Vehicle Mix: 3
		ITERLINE	Unm	Led Day	61.33	37.30	55.83	62.42		
Segment:	Vehicle Speed: 50 MPH	F 65 FEET FROM CENTERLINE		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	64.00	56.80	67.11	69.10	Segment:	Vehicle Speed: 45 MPH
	Vehicle Spe	T 65 FEET			-1.20	-1.20	-1.20	Total:		Vehicle Spe
		ETERS A	ustments	Dist Adj.	-1.38	-1.38	-1.38			
oulevard	Vehicles	NOISE PARAMETERS AT	Noise Adjustments	REMEL Traffic Adj. Dist Adj.	-4.55	-19.41	-13.33		n Street	5 Vehicles
Foothill Boulevard	raffic: 6925	SION		REMEL Tr	71.12	78.79	83.02		Wentworth Street	raffic: 1022
Road Name:	Average Daily Traffic: 6925 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks		Road Name:	Average Daily Traffic: 10225 Vehicles

ondary	to	et)	CNEL	30	65	140	303	
ition: Sec	Distance	our (in fe	Ldn	28	61	131	281	
Roadway Classification: Secondary	Centerline Distance to	Noise Contour (in feet)		64.30 70 dBA:	46.78 65 dBA:	59.25 60 dBA:	55 dBA:	
Roadwa				64.30	46.78	59.25	65.54	
	: 54.99 f		Ldn	63.67	46.74	59.22	65.07	
x: 3	(Equiv. Lane Dist: 54.99 ft)	Unmitigated Noise Levels	Leq Night	55.24	40.59	52.39	57.15	
Vehicle Mix: 3		itigated N	eq Eve.	61.29	31.38	43.18	61.36	
_	TERLINE	Unmi	eq Day 1-	65.29	39.16	55.62	63.40	
ehicle Speed: 45 MPH	60 FEET FROM CENTERLINE		REMEL Traffic Adj. Dist Adj. Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	65.14	58.55	68.13	70.20	
Vehicle Spe	r 60 feet f		Finite Adj	-1.20	-1.20	-1.20	Total:	
	ETERS AT	stments	Dist Adj.	-0.72	-0.72	-0.72		
5 Vehicles	NOISE PARAMETERS AT	Noise Adjustments	affic Adj.	-2.28	-17.15	-12.09		
affic: 1022	SION		REMELT	69.34	77.62	82.14		
Average Daily Traffic: 10225 Vehicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks	•	

: : :	: Major	to	et)	CNEL	26	26	120	259	
9	sirication	Distance	our (in fe	Ldn	24	25	113	243	
Č	Roadway Classification: Major	Centerline Distance to	Noise Contour (in feet)		55.16 70 dBA:	39.08 65 dBA:	52.24 60 dBA:	57.02 55 dBA:	
C	צֿ			Ldn CNEL	55.16	39.08	52.24	57.02	
et		t: 188.6		Ldn	54.53	39.04	52.22	56.61	
South of Branford Street	X: 3	(Equiv. Lane Dist: 188.6 ft)	Unmitigated Noise Levels	Leq Night	46.10	32.89	45.39	48.88	
outh of E	venicie MIX: 3		tigated N	eq Eve.	52.15	23.68	36.18	52.27	
#		JTERLINE	Unmi	Led Day 1	53.45	31.46	48.62	54.70	
Segment:	renicie Speed: 35 MPH	190 FEET FROM CENTERLINE		Finite Adj Leq Peak Leq Day Leq Eve. Leq Night	26.00	50.85	61.13	62.59	
0	enicie Spe	190 FEET		Finite Adj	-1.20	-1.20	-1.20	Total:	
•	_	\vdash	nstments.		-8.75	-8.75	-8.75		
ndo Road	venicies	NOISE PARAMETERS A ⁻	Noise Adjustments	REMEL Traffic Adj. Dist Adj.	0.84	-14.03	-8.96		
San Ferna	rattic: 16323	ISION	Noi	Noi	REMELTR	65.11	74.83	80.05	
Road Name: San Fernando Road	Average Daily Traffic: To325 Venicles			Vehicle Type	Automobiles	Medium Trucks	Heavy Trucks		