NOISE IMPACT ANALYSIS

BARSTOW 2014 GENERAL PLAN REVISION

CITY OF BARSTOW

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PROJECT NO. 14004

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ACRONYMS AND ABBREVIATIONS

ANSI	American National Standards Institute
BNSF	Burlington Northern Santa Fe Corporation
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
Ldn	Day-night average noise level
Leq	Equivalent sound level
Lmax	Maximum noise level
ONAC	Federal Office of Noise Abatement and Control
OSB	Oriented Strand Board
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

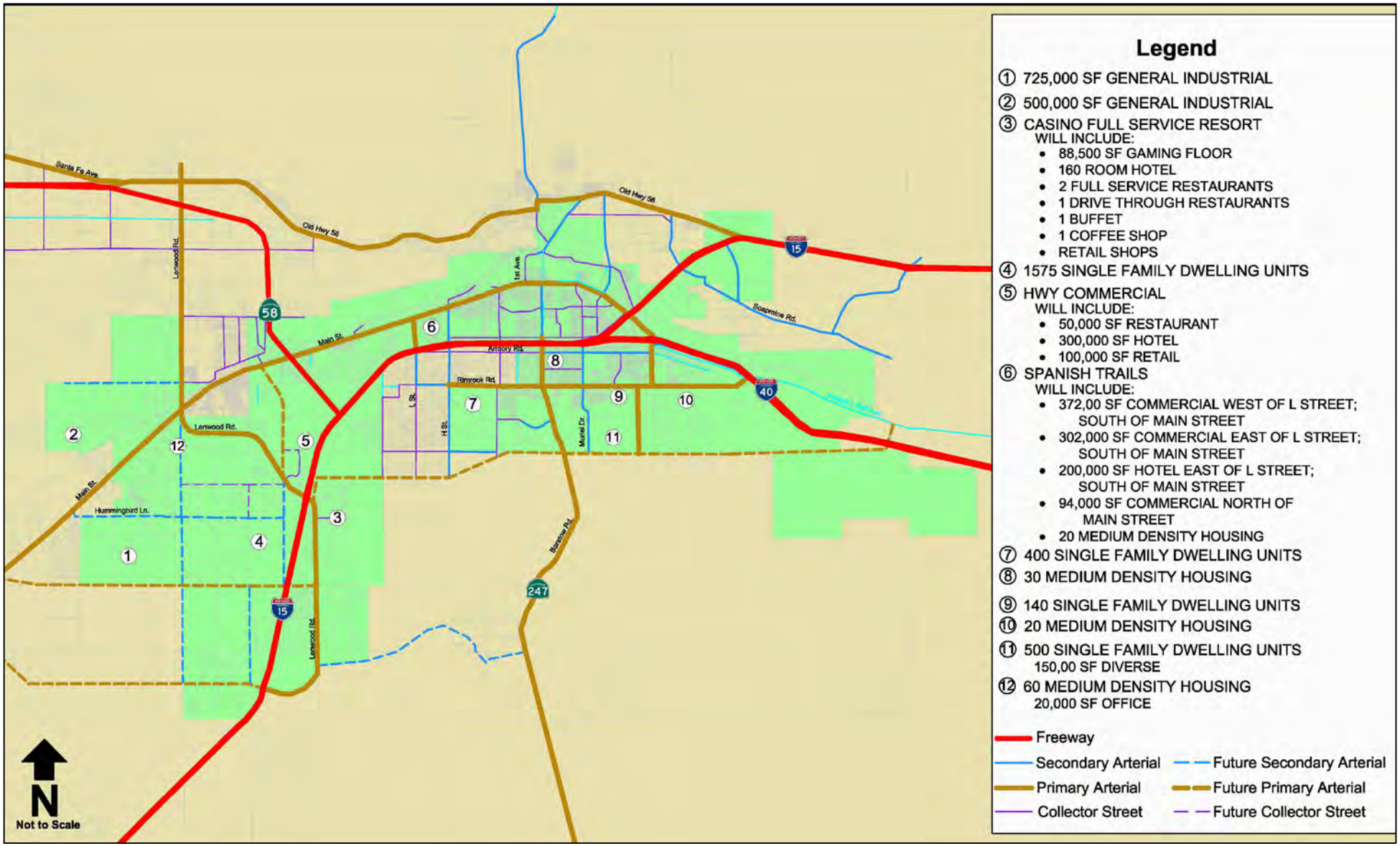
This Noise Impact Analysis has been prepared to determine the noise impacts associated with the proposed Barstow 2014 General Plan Revision Project (proposed project). The following is provided in this report:

- 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 Proposed Project Description

The City of Barstow (City) is proposing a comprehensive revision to its General Plan. The City is anticipating roughly two percent annual growth during the 2015-2020 planning period and that it is expected that the growth will occur primarily within twelve future developments proposed throughout the City that are anticipated to be completed by the year 2020. The twelve future developments include the following are shown in Figure 1:

1. 725,000 square feet of general industrial;
2. 500,000 square feet of general industrial;
3. A full service casino resort;
4. 1,575 single-family homes;
5. A highway commercial complex;
6. The Spanish Trails project;
7. 400 single-family homes;
8. 30 units of medium density housing;
9. 140 single-family homes;
10. 20 units of medium density housing;
11. 500 single-family homes; and
12. 60 units of medium density housing.



SOURCE: Advantec Consulting Engineers, June 20, 2014.

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Figure 1
Proposed Future Developments

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 Barstow relies 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 potential vibration impacts that may need to be studied through actual field tests.

4.0 REGULATORY SETTING

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. Surface transportation system noise is regulated by a host of agencies, including the Federal Transit Administration (FTA). Transit noise is regulated by the federal Urban Mass Transit 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.

Since the federal government has preempted the setting of standards for noise levels that can be emitted by the transportation sources, the City is restricted to regulating the noise generated by the transportation system through nuisance abatement ordinances and land use planning. The FHWA, Housing and Urban Development (HUD) and Federal Railroad Administration (FRA) noise standards are detailed below.

Federal Highway Administration

State routes and freeways that run through the City are subject to federal funding and as such, are under the purview of the FHWA. The FHWA has developed noise standards for projects that require either Federal or Caltrans review. The noise standards are detailed in Table A.

Table A – FHWA Design Noise Levels

Activity Category	Description of Activity Category	Evaluation Location	Design Noise Levels[1] L_{eq} (dBA)[2]	L_{10} (dBA)[2]
A	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.	Exterior	57	60
B[3]	Residential	Exterior	67	70
C[3]	Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings	Exterior	67	70
D	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools and television studios	Interior	52	55
E[3]	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F	Exterior	72	75
F	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, ship yards, utilities (water resources, water treatment, electrical), and warehousing	--	--	--
G	Undeveloped lands that are not permitted	--	--	--

Notes:
[1] Based on hourly A-weighted sound levels in decibels. Either $L_{eq(h)}$ or $L_{10(h)}$ (but not both) may be used on a project.
[2] The $L_{eq(h)}$ and $L_{10(h)}$ Activity Criteria values are for impact determination only, and are not design standards for noise abatement measures.
[3] Includes undeveloped lands that are permitted for this activity category
Source: U.S. Department of Transportation, 2011.

U.S. Department of Housing and Urban Development

The HUD issues formal requirements related specifically to standards for exterior noise levels along with policies for approving HUD-supported housing projects in high noise areas. In general, these requirements establish three zones, that are detailed below:

13. **65 dBA L_{dn} or less** – an acceptable zone where all projects could be approved.

14. **Exceeding 65 dBA L_{dn} but not exceeding 75 dBA L_{dn}** – a normally unacceptable zone, where mitigation measures would be requires and each project would have to be individually evaluated for approval or denial. These measures must provide 5 dBA of attenuation above the attenuation provided by standard construction required in a 65 to 70 dBA L_{dn} area and 10 dBA of attenuation in a 70 to 75 dBA L_{dn} area.

15. **Exceeding 75 dBA L_{dn}** – an unacceptable zone in which project would not, as a rule, be approved.

Federal Railroad Administration

The FRA provides specific noise standards for railroad operations, which are summarized in Table B.

Table B – Summary of FRA Railroad Noise Standards

Noise Source	Operating Conditions	Measured Distance (feet)	Standard (dBA)
Non-Switcher Locomotives built on or before 12/3179	Stationary Idle	100	73 $L_{max\ (slow)}$
	Stationary Non-Idle	100	93 $L_{max\ (slow)}$
	Moving	100	96 $L_{max\ (fast)}$
Switched and Non-Switcher Locomotives built after 12/31/79	Stationary Idle	100	70 $L_{max\ (slow)}$
	Stationary Non-Idle	100	87 $L_{max\ (slow)}$
	Moving	100	90 $L_{max\ (fast)}$
Rail Cars	Speed ≤ 45 mph	100	88 $L_{max\ (fast)}$
	Speed > 45 mph	100	93 $L_{max\ (fast)}$
	Coupling	Receiving Property	92 $L_{adjavemax\ (fast)}$
	Retarders	Receiving Property	83 $L_{adjavemax\ (fast)}$

Source: U.S. Department of Transportation, 2009.

Federal Transit Administration

The FTA is the only Federal agency that has defined what constitutes a significant noise impact from implementing a project. The FTA studies 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 C.

Table C – FTA Project Effects on Cumulative Noise Exposure

Existing Noise Exposure (dBA Leq or Ldn)	Allowable Noise Impact Exposure 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 2.

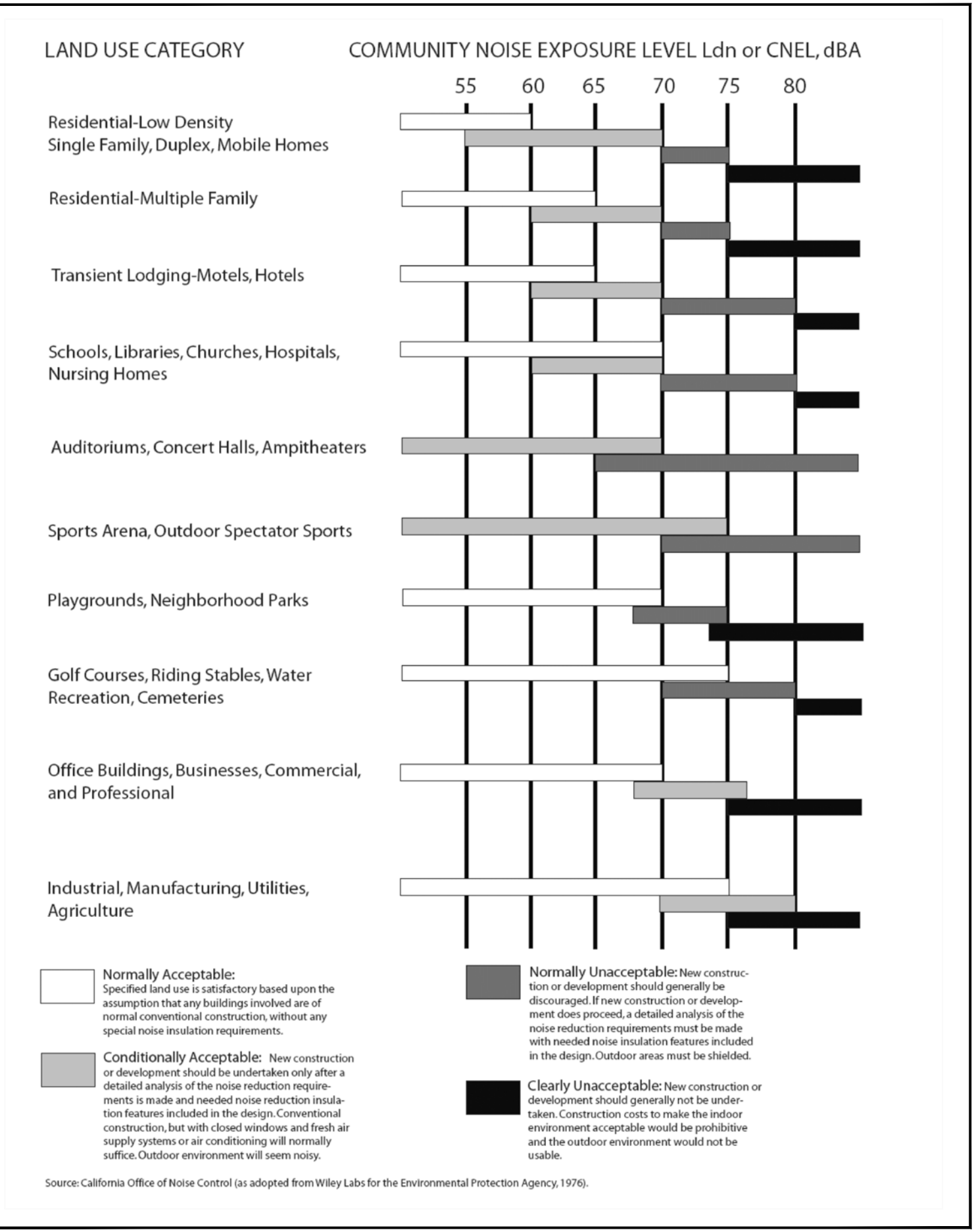

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Figure 2
Land Use Compatibility Matrix

Table D includes the State interior and exterior noise standards for varying land uses. It is important to note that the exterior noise levels are to be attained in "habitable" exterior areas and need not encompass the entirety of a property.

Table D – State of California Interior and Exterior Noise Standards

Categories	Uses	CNEL (dBA)	
		Interior[1]	Exterior[2]
Residential	Single-family, Duplex , Multi-family	45[3]	65
	Mobile Homes	--	65[4]
Commercial Industrial	Hotel, Motel, Transient Lodge	45	65[5]
	Commercial Retail, Bank, Restaurants	55	--
	Office Building, R & D, Professional & Government Offices	50	--
	Amphitheater, Concert Hall, Auditorium, Meeting Hall	45	--
	Gymnasium (Multipurpose)	50	--
	Sports Club	55	--
	Manufacturing, Warehousing, Wholesale, Utilities	65	--
	Movie Theaters	45	--
Institutional	Hospitals, Schools, Classrooms	45	65
	Church, Library	45	--
Open Space	Parks and Outdoor Active and Passive Recreation Facilities	--	65

Notes:
[1] Indoor environment excluding: bathrooms, toilets, closets, and corridors.
[2] Outdoor environment limited to:
Private yard of single-family residence.
Multi-family private patio or balcony which is served by a means of exit from inside.
Mobile home park.
Hospital patio.
Park's picnic area.
School's playground.
Hotel and motel recreation area.
[3] Noise level requirements with closed windows. Mechanical ventilation or other means of natural ventilation shall be provided as per Chapter 12, Section 1205 of the Uniform Building Code.
[4] Exterior noise level should be such that interior noise level will not exceed 45 dBA CNEL.
[5] Except those areas affected by aircraft noise.
Source: California Department of Health, 1976

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.

Vibration Standards

Title 14 of the California Administrative Code Section 15000 requires that all state and local agencies implement the California Environmental Quality Act (CEQA) Guidelines, which requires the analysis of exposure of persons to excessive groundborne vibration. However, no statute has been adopted by the state that quantifies the level at which excessive groundborne vibration occurs.

Caltrans issued the *Transportation- and Construction-Induced Vibration Guidance Manual* in 2004. The manual provides practical guidance to Caltrans engineers, planners, and consultants who must address vibration issues associated with the construction, operation, and maintenance of Caltrans projects. However, this manual is also used as a reference point by many lead agencies and CEQA practitioners throughout California, as it provides numeric thresholds for vibration impacts. Table E provides guidelines for vibration annoyance potential criteria and Table F provides guidelines for vibration damage potential to existing structures.

Table E – Caltrans Guidelines for Vibration Annoyance

	Maximum Peak Particle Velocity (inches/second)	
Human Response	**Transient Sources**	**Continuous/Frequent Intermittent Sources**
Barely Perceptible	0.04	0.01
Distinctly Perceptible	0.25	0.04
Strongly Perceptible	0.9	0.10
Severe	2.0	0.4

Source: California Department of Transportation, 2004.

Table F – Caltrans Guidelines for Vibration Damage Potential

	Maximum Peak Particle Velocity (inches/second)	
Structure and Condition	**Transient Sources**	**Continuous/Frequent Intermittent Sources**
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: California Department of Transportation, 2004.

4.3 Local Regulations

The City of Barstow General Plan and Municipal Code establish the following applicable policies to the proposed project related to noise and vibration.

City of Barstow General Plan

The City of Barstow General Plan utilizes the State of California interior and exterior noise standards that are detailed above in Table D. The following lists the noise-related goals and policies provided in the General Plan.

Goal III.3 Provide an environment free of potentially hazardous sounds and noise.

Policy III.3.1 Establish appropriate standards and criteria for desirable sound levels in various land use categories as shown in Table III.3 [Figure 2].

Policy III.3.2 In accordance with State standards, any new multi-family construction located in areas with noise levels greater than 60 dB shall use sound attenuation measures that reduce interior noise levels to 45 dB.

Policy III.3.3 The City shall implement mitigation techniques for all construction where noise levels exceed compatible use standards. Sound attenuation walls are required for all new residential construction adjacent to the freeway or arterial highways. Sound attenuation walls shall be designed according to the guidelines contained within this Plan.

Policy III.3.4 Update every five years the noise contour map that will identify the major sources of noise in the City.

Policy III.3.5 In accordance with State standards, the City will assess new single-family developments (although it is not required by State law) to determine if there is a need for noise attenuation.

Policy III.3.6 The Planning Department shall maintain communication regarding noise control with the State Office of Noise Control, neighboring jurisdictions and other relevant agencies.

City of Barstow Municipal Code

The City Noise Ordinance utilizes the State of California interior and exterior noise standards that are detailed above in Table D as a guide to determine noise violations.

5.0 EXISTING NOISE CONDITIONS

To determine the existing noise level environment noise measurements have been taken in the areas of the City that are anticipated to be impacted by development in the near future. The field survey noted that noise within the City is generally characterized by vehicular traffic on the freeways and major roads and railroad activity on the BNSF railroad. The following describes the measurement procedures, measurement locations, noise measurement results, and the modeling of the existing noise environment.

5.1 Noise Measurement Parameters

Noise Measurement Equipment

Noise monitoring was performed using two different styles of noise meters for the short-term measurements and the 24-hour measurements, which are described below.

Short-Term Noise Measurements

The short-term noise measurements were taken using a Larson-Davis Model 831 Type 1 precision sound level meter programmed in "slow" mode to record noise levels in "A" weighted form as well as the frequency spectrum of the noise broken down into 1/3 octaves. 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 using a Larson-Davis calibrator, Model CAL 200. 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).

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.

24-Hour Noise Measurements

The 24-hour noise measurements were taken using four Extech Model 407780 Type 2 integrating sound level meters programmed in "slow" mode to record the sound pressure level at 3-second intervals for 24 hours in "A" weighted form. In addition, the Leq averaged over the entire measuring time and Lmax were recorded. The sound level meters and microphones were placed approximately 5 feet above the ground and were equipped with windscreens during all measurements. The sound level meters were calibrated before and after the monitoring using an Extech calibrator, Model 407766. All noise level measurement equipment meets American National Standards Institute 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 levels in the project study area and to provide a baseline for any potential noise impacts that may be created by anticipated development in the City. The noise measurement sites were selected to provide a representative sampling of the noise levels created by a variety of noise sources. A description of the noise monitoring sites are provided below in Table G for the short-term noise measurements and Table E

for the 24-hour noise measurements. Appendix A includes a photo index of the noise measurement locations.

Noise Measurement Timing and Climate

The noise measurements were recorded between 2:34 p.m. on Wednesday May 14, 2014 and 7:06 p.m. on Thursday, May 15, 2014. When the noise measurements were started the sky was clear, the temperature was 88 degrees Fahrenheit, the humidity was 10 percent, barometric pressure was 27.64 inches of mercury, and the wind was blowing around 8 miles per hour. Overnight the sky was clear and the temperature dropped to 59 degrees Fahrenheit. At the conclusion of the noise measurements, the sky was clear, the temperature was 94 degrees Fahrenheit, the humidity was 10 percent, barometric pressure was 27.50 inches of mercury, and the wind was blowing around 3 miles per hour.

5.2 Noise Measurement Results

Short-Term Noise Measurements

The results of the short-term noise level measurements are presented in Table G.

Table G – Short-Term Noise Level Measurements

Site No.[1]	Description	Start Time of Measurement[2]	End Time of Measurement	Noise Level (dBA L_{eq}/L_{max})
1	Located approximately 80 feet east of Barstow Road (SR-247) centerline across the road from Trinity Baptist Church.	3:43 p.m.	3:59 p.m.	56.3/75.0
2	Located approximately 60 feet south of Rimrock Road centerline and 240 feet west of Lovato Avenue centerline	4:05 p.m.	4:23 p.m.	64.4/75.5
3	Located approximately 70 feet south of Rimrock Road centerline across the road from Donald Stringham Memorial Park	4:09 p.m.	4:25 p.m.	55.1/69.8
4	Located approximately 75 feet west of Jasper Road centerline, 75 feet south of Agate Road centerline, and 280 feet west SR-58 centerline	5:10 p.m.	5:25 p.m.	58.6/69.0
5	Located approximately 75 feet southeast of Main Street, 70 feet southwest of Country Club Drive, and 2,000 feet southeast of the BNSF Railroad	5:36 p.m.	5:51 p.m.	62.3/72.5
6	Located on Buckboard Road, approximately 700 feet north of Sidewinder Road and 1,200 feet west of I-15	6:03 p.m.	6:18 p.m.	41.0/50.3
7	Located approximately 120 feet east of Lenwood Road across the road from Tanger Outlet Center	6:27 p.m.	6:43 p.m.	50.4/59.6
8	Located approximately 200 feet north of the end of Commerce Parkway and 500 feet west of I-15	6:51 p.m.	7:06 p.m.	52.5/62.1

Notes:
[1] Noise measurement locations shown on Figure 4.
[2] Noise measurement Sites 1 and 2 taken on May 14, 2014 and Sites 3 through 8 taken on May 15, 2014.

Table G above shows that the existing short-term noise level measurements ranged from 41.0 to 64.4 dBA Leq, with the highest noise measurement occurring at Site 2. The short-term noise monitoring data printouts are included in Appendix B.

24-Hour Noise Measurements

The results of the 24-hour noise level measurements are presented in Table H. The measured sound pressure levels in dBA have been used to calculate the minimum and maximum L_{eq} averaged over 1-hour intervals. Table H also shows the L_{eq}, L_{max}, and CNEL, based on the entire measurement time. The 24-hour noise monitoring data printouts are included in Appendix B. Figure 3 shows a graph of the 24-hour noise measurements.

Table H – Existing (Ambient) Noise Level Measurements

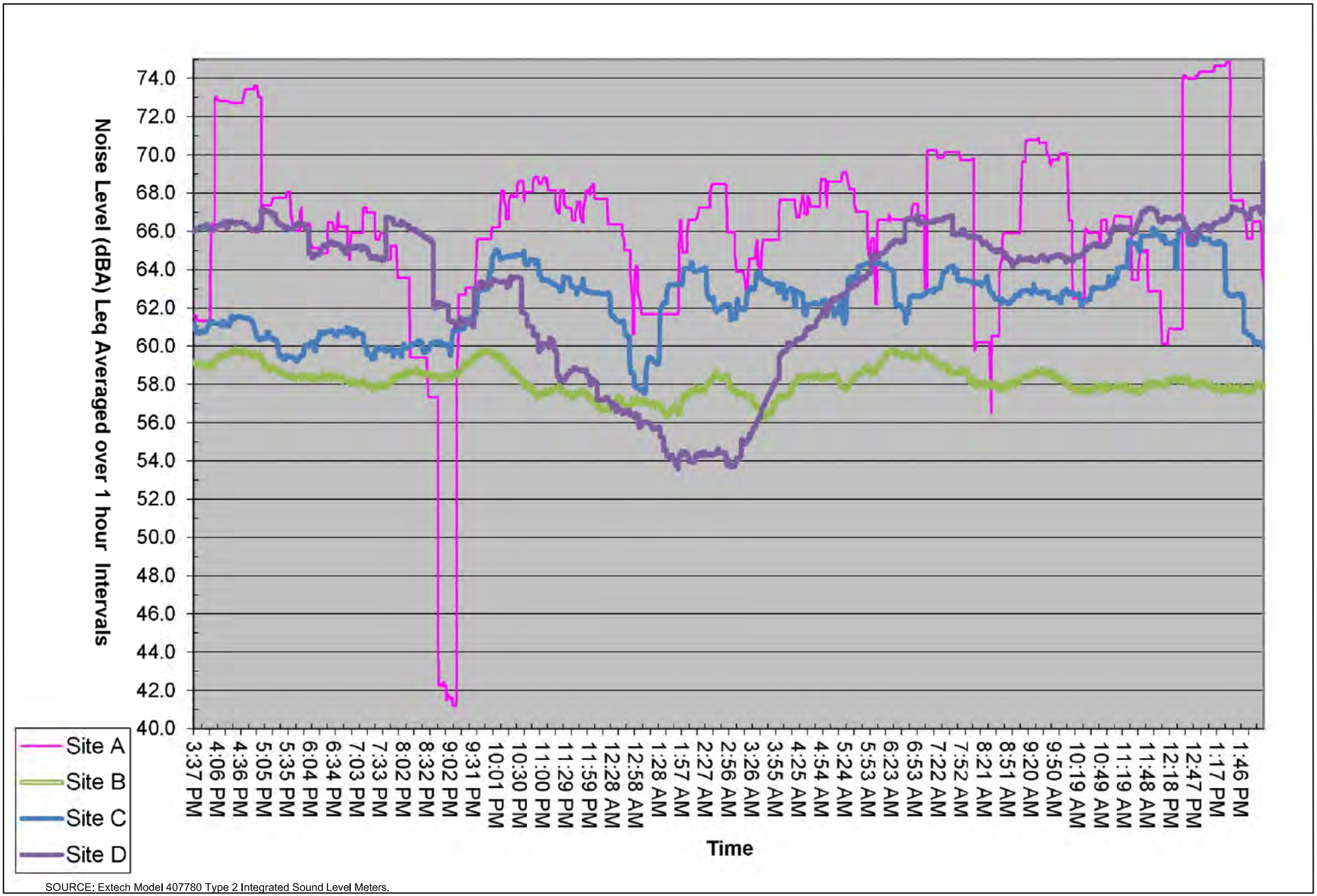
Site No.[1]	Site Description[2]	Average (dBA L_{eq})	Maximum (dBA L_{max})	Min. 1-Hour Interval (dBA L_{eq}/Time)	Max. 1-Hour Interval (dBA L_{eq}/Time)	Average (dBA CNEL)
A	Located approximately 120 feet southeast of BNSF Railroad on the northeast side of Townsend Street.	67.7	101.8	41.2 8:54 p.m.	74.9 1:17 p.m.	73.5
B	Located approximately 500 feet north of I-15 centerline on the northeast corner of the Park N Ride lot on L Street.	58.3	77.6	56.3 1:30 a.m.	59.8 4:27 p.m.	64.7
C	Located approximately 290 feet south of I-40 centerline on the east property line of 2450 E Main Street.	62.7	90.3	57.5 1:08 a.m.	66.2 11:55 a.m.	69.4
D	Located approximately 75 feet west of Barstow Road centerline and 140 feet south of Armory Road centerline	64.7	93.9	53.6 2:19 a.m.	69.8 2:47 p.m.	68.8

Notes:
[1] Noise measurement locations shown on Figure 4.
[2] Noise measurements taken between May 14, 2014 and May 15, 2014.

Table H shows that Sites A, C, and D currently exceed the City exterior noise standard of 65 dBA CNEL for new residential, hotel and motel, and institutional uses from the City's Noise Ordinance that utilizes the State's Exterior and Interior noise standards detailed above in Table D.

5.3 Modeled Existing Noise Levels

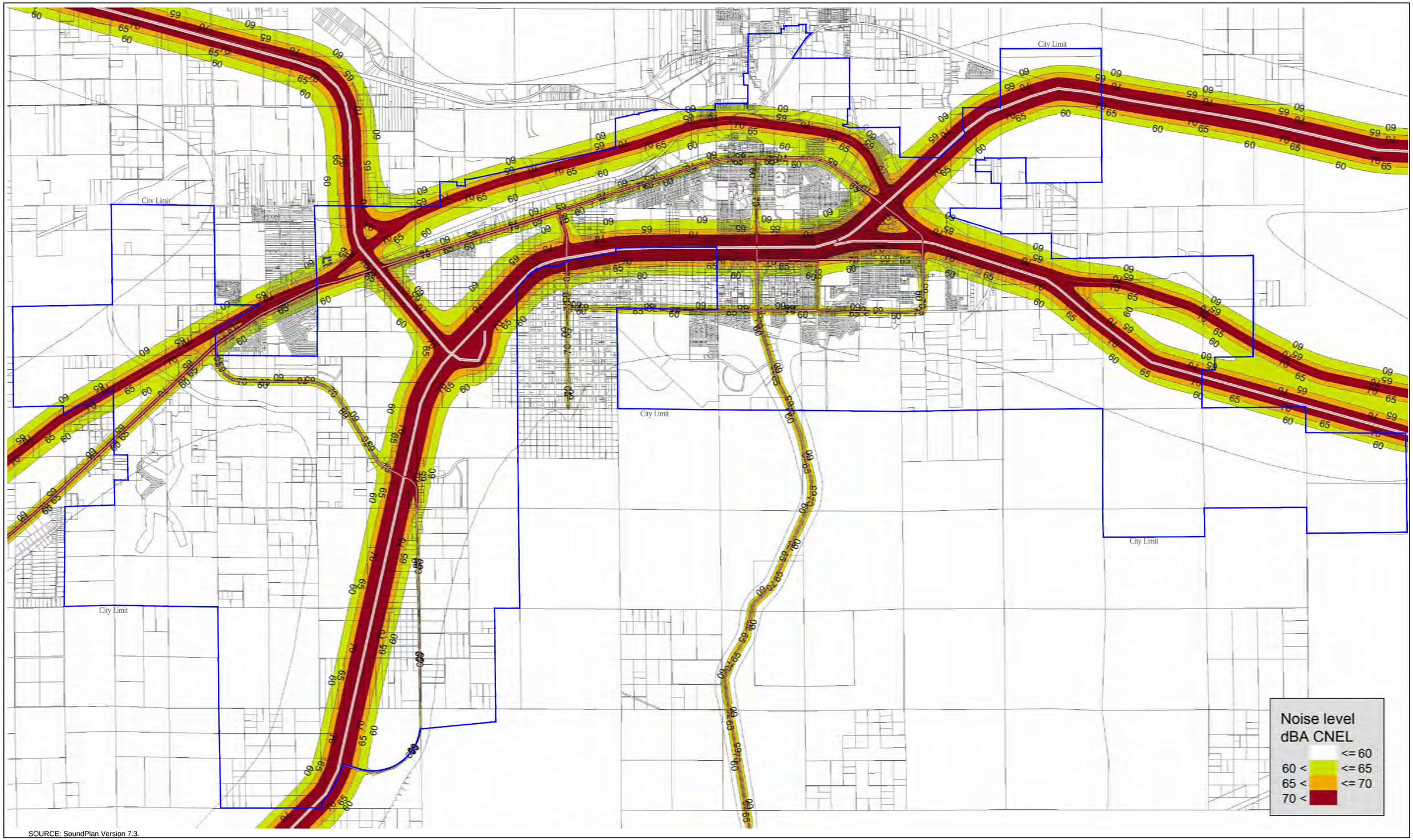
The noise contours have been modeled utilizing two methodologies that include use of the SoundPlan model in order to create Figure 4, that depicts the City-wide noise contours from local roads, freeways and railroads. The second method was performed through utilization of the FHWA-RD-77-108 traffic noise model whose results are provided in Table I and shows the noise contours of the City's existing major roadways. The distances to the 55, 60, 65, and 70 dBA CNEL noise contours were calculated, plus the noise level at 100 feet from the centerline, which is the approximate average distance to the nearest structures on these roadway segments. Table I shows the existing traffic noise contours and Appendix C provides the FHWA Model printouts.



SOURCE: Extech Model 407780 Type 2 Integrated Sound Level Meters.

VISTA ENVIRONMENTAL

Figure 3
Field Noise Measurements Graph



SOURCE: SoundPlan Version 7.3.

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VISTA ENVIRONMENTAL

Figure 4
Existing Year 2014 Noise Contour Map

Table I – Existing Roadway Noise Contours

Roadway	Segment	CNEL at 100 Feet (dBA)[1]	Distance to Contour (feet)			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Main Street	West City Limit to SR 58	63	RW	73	158	340
Main Street	SR 58 to Woodham Avenue	62	RW	61	132	284
Main Street	Woodham Avenue to L Street	62	RW	68	146	315
Main Street	L Street to Avenue H	60	RW	RW	105	226
Main Street	Avenue H to Avenue D	61	RW	53	114	245
Main Street	Avenue D to Avenue A	61	RW	54	115	249
Main Street	Avenue A to First Avenue	59	RW	RW	90	194
Main Street	First Avenue to Barstow Road	60	RW	RW	97	209
Main Street	Barstow Road to Muriel Drive	59	RW	RW	89	192
Main Street	Muriel Drive to Yucca Avenue	60	RW	RW	93	200
Main Street	Yucca Avenue to Coolwater Lane	61	RW	56	121	261
Main Street	Coolwater Lane to I-15	62	RW	62	133	286
Main Street	I-15 to I-40	61	RW	54	117	252
Barstow Road	Main Street to Mountain View Street	58	RW	RW	77	166
Barstow Road	Mountain View Street to Virginia Wy	60	RW	47	102	219
Barstow Road	Armory Road to Rimrock Road	62	RW	66	142	307
Barstow Road	South of Rimrock Road	63	RW	69	149	321
Armory Road	Barstow Road to Eleventh Street	60	RW	44	94	203
Armory Road	Eleventh Street to Muriel Drive	60	RW	45	97	209
Armory Road	Muriel Drive to Broadway Avenue	58	RW	RW	79	170
Armory Road	Broadway Avenue to Higgins Road	57	RW	RW	60	128
Armory Road	Higgins Road to Montara Road	51	RW	RW	RW	54
Montara Road	Armory Road to Rimrock Road	58	RW	RW	70	152
Muriel Drive	North of Armory Road	53	RW	RW	36	78
Muriel Drive	Armory Road to Rimrock Road	57	RW	RW	62	134
Windy Pass	Barstow Road to Eleventh Street	44	RW	RW	RW	RW
Mountain View Street	East of Barstow Road	53	RW	RW	34	73
Mountain View Street	West of Barstow Road	55	RW	RW	44	95
Avenue A	South of Main Street	50	RW	RW	RW	49
First Avenue	Main Street to BNSF Railroad	57	RW	RW	61	132
First Avenue	Irwin Road to Old Highway 58	58	RW	RW	71	153
Irwin Road	Old Highway 58 to First Avenue	57	RW	RW	64	137
Riverside Drive	First Avenue to Yucca Avenue	47	RW	RW	RW	RW
Lenwood Road	North of Commerce Parkway	57	RW	RW	68	147
Lenwood Road	I-15 to Mercantile Way	61	RW	55	119	257
Lenwood Road	South of Mercantile Way	51	RW	RW	RW	53

Table I – Existing Roadway Noise Contours

Roadway	Segment	CNEL at 100 Feet (dBA)[1]	Distance to Contour (feet)			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Commerce Parkway	North of Lenwood Road	56	RW	RW	52	111
Mercantile Way	East of Lenwood Road	48	RW	RW	RW	34
L Street	Linda Vista Avenue to Rimrock Road	58	RW	36	78	168
L Street	Rimrock Road to I-15	58	RW	RW	79	170
L Street	I-15 to Main Street	62	RW	64	137	295
Rimrock Road	L Street to H Street	59	RW	RW	83	179
Rimrock Road	H Street to Barstow Road	60	RW	RW	98	211
Rimrock Road	Barstow Road to Muriel Drive	59	RW	RW	92	198
Rimrock Road	Muriel Drive to Broadway Avenue	59	RW	RW	92	198
Rimrock Road	Broadway Avenue to Montara Road	58	RW	RW	70	151

Notes:
[1] Does not take into account existing noise barriers.
RW = Noise contour is located within right-of-way of roadway.
Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

The calculated existing noise contours in Table I shows that no analyzed roadway segment at 100 feet from the centerline currently exceeds the City's 65 dBA CNEL exterior noise standard for new residential, hotel and motel, and institutional uses.

6.0 MODELING PARAMETERS AND ASSUMPTIONS

6.1 Operations-Related Noise

Implementation of the proposed General Plan would result in increases in traffic noise to the nearby roadways as well as introduce new sensitive receptors to the City. The project-related noise impacts for each roadway are analyzed through use of the FHWA Traffic Noise Prediction Model FHWA-RD-77-108 (FHWA Model) and the noise contours from the combined impacts of roadway and railroad noise have been analyzed through use of the SoundPlan model. Both noise models are described in greater detail below.

FHWA-RD-77-108 Model

In order to quantify the potential noise impacts created by the vehicular traffic generated by implementation of the proposed General Plan and compare them to the without project noise levels, the roadway noise environment was modeled using the FHWA Model. The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). Adjustments are then made to the 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 landscaping).

FHWA Model Roadway Parameters

The roadway parameters used for this study are presented in Table J. The roadway classifications are based on the City's General Plan Circulation Element. The roadway speeds are based on the posted speed limits. The average daily traffic volumes were obtained from *Traffic Study for Barstow 2014 General Plan Amendment* (Traffic Study), prepared by Advantec Consulting Engineers, June 20, 2014. Soft site conditions were used to analyze all roadway segments.

Table J – FHWA Model Roadway Parameters

				Average Daily Traffic		
Roadway	**Segment**	**General Plan Classification**	**Vehicle Speed (MPH)**	**Existing**	**Year 2020 Without Project**	**Year 2020 With Project**
Main Street	West City Limit to SR 58	Primary Arterial	55	8,219	9,256	9,865
Main Street	SR 58 to Woodham Avenue	Primary Arterial	55	6,294	7,089	7,698
Main Street	Woodham Avenue to L Street	Primary Arterial	55	7,345	8,272	9,748
Main Street	L Street to Avenue H	Primary Arterial	40	10,310	11,611	13,401
Main Street	Avenue H to Avenue D	Primary Arterial	40	11,652	13,123	14,748
Main Street	Avenue D to Avenue A	Primary Arterial	40	11,933	13,439	15,064
Main Street	Avenue A to First Avenue	Primary Arterial	35	11,559	13,017	13,837
Main Street	First Avenue to Barstow Road	Primary Arterial	35	12,943	14,575	14,828
Main Street	Barstow Road to Muriel Drive	Primary Arterial	35	11,372	12,806	12,806
Main Street	Muriel Drive to Yucca Avenue	Primary Arterial	35	12,110	13,638	13,638

Table J – FHWA Model Roadway Parameters

Roadway	Segment	General Plan Classification	Vehicle Speed (MPH)	Average Daily Traffic		
				Existing	Year 2020 Without Project	Year 2020 With Project
Main Street	Yucca Avenue to Coolwater Lane	Primary Arterial	40	12,839	14,458	14,458
Main Street	Coolwater Lane to I-15	Primary Arterial	40	14,701	16,556	16,556
Main Street	I-15 to I-40	Primary Arterial	40	12,183	13,720	14,784
Barstow Road	Main Street to Mountain View Street	Secondary Arterial	35	8,219	9,256	9,507
Barstow Road	Mountain View Street to Virginia Way	Secondary Arterial	35	12,454	14,025	14,833
Barstow Road	Armory Road to Rimrock Road	Primary Arterial	45	9,801	11,037	12,924
Barstow Road	South of Rimrock Road	Primary Arterial	55	5,909	6,655	7,599
Armory Road	Barstow Road to Eleventh Street	Secondary Arterial	45	6,794	7,651	7,651
Armory Road	Eleventh Street to Muriel Drive	Secondary Arterial	45	7,096	7,991	7,991
Armory Road	Muriel Drive to Broadway Avenue	Secondary Arterial	40	7,283	8,202	8,202
Armory Road	Broadway Avenue to Higgins Road	Secondary Arterial	40	4,775	5,378	5,378
Armory Road	Higgins Road to Montara Road	Secondary Arterial	25	4,973	5,601	5,601
Montara Road	I-40 to Armory Road	Primary Arterial	40		13,720	14,784
Montara Road	Armory Road to Rimrock Road	Primary Arterial	40	5,691	6,409	7,473
Muriel Drive	North of Armory Road	Collector	25	8,812	9,924	9,924
Muriel Drive	Armory Road to Rimrock Road	Secondary Arterial	40	5,098	5,741	5,741
Windy Pass	Barstow Road to Eleventh Street	Collector	25	1,144	1,289	1,289
Mountain View Street	East of Barstow Road	Collector	35	3,069	3,456	3,456
Mountain View Street	West of Barstow Road	Collector	35	4,578	5,155	5,155
Avenue A	South of Main Street	Collector	35	1,665	1,875	1,875
First Avenue	Main Street to BNSF Railroad	Collector	35	7,480	8,424	9,130
First Avenue	Irwin Road to Old Highway 58	Secondary Arterial	50	3,277	3,691	3,818
Irwin Road	Old Highway 58 to First Avenue	Collector	40	5,400	6,081	6,335
Riverside Drive	First Avenue to Yucca Avenue	Collector	25	1,894	2,132	2,319
Lenwood Road	North of Commerce Parkway	Primary Arterial	35	7,574	8,530	10,991
Lenwood Road	I-15 to Mercantile Way	Primary Arterial	35	17,635	19,860	21,552

Table J – FHWA Model Roadway Parameters

Roadway	Segment	General Plan Classification	Vehicle Speed (MPH)	Average Daily Traffic		
				Existing	Year 2020 Without Project	Year 2020 With Project
Lenwood Road	South of Mercantile Way	Primary Arterial	35	1,644	1,851	3,971
Commerce Parkway	North of Lenwood Road	Collector	35	5,753	6,479	9,985
Mercantile Way	East of Lenwood Road	Collector	35	957	1,078	1,078
L Street	Linda Vista Avenue to Rimrock Road	Collector	45	5,202	5,858	5,874
L Street	Rimrock Road to I-15	Secondary Arterial	45	5,202	5,858	6,898
L Street	I-15 to Main Street	Primary Arterial	55	6,660	7,651	8,446
Rimrock Road	L Street to H Street	Secondary Arterial	50	4,162	4,687	4,834
Rimrock Road	H Street to Barstow Road	Primary Arterial	50	5,202	5,858	5,907
Rimrock Road	Barstow Road to Muriel Drive	Primary Arterial	45	6,242	7,030	7,530
Rimrock Road	Muriel Drive to Broadway Avenue	Primary Arterial	45	6,242	7,030	7,131
Rimrock Road	Broadway Avenue to Montara Road	Primary Arterial	45	4,162	4,687	4,721
Un-Named Road	Muriel Road to Montara Road	Primary Arterial	55	0	4,687	4,735

Source: Advantec Consulting Engineers, 2014.

The vehicle mixes used in the FHWA Model are shown in Table K. The vehicle mixes were obtained from *2012 Annual Average Daily Truck Traffic on the California State Highway System,* prepared by Caltrans, 2014 as well as typical vehicle mixes observed in Southern California.

Table K – Roadway Vehicle Mixes

Vehicle Type	Traffic Flow Distributions			
	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
Collector and Secondary Arterial				
Automobiles	73.60%	13.60%	10.22%	97.42%
Medium Trucks	0.90%	0.90%	0.04%	1.84%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%
Primary Arterial				
Automobiles	69.5%	12.9%	9.6%	92.0%
Medium Trucks	1.4%	0.1%	1.5%	3.0%
Heavy Trucks	2.4%	0.1%	2.5%	5.0%

Table K – Roadway Vehicle Mixes

Vehicle Type	Traffic Flow Distributions			
	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
State Route 247				
Automobiles	67.8%	13.9%	16.2%	97.9%
Medium Trucks	0.7%	0.1%	0.4%	1.2%
Heavy Trucks	0.5%	0.0%	0.4%	0.9%
Interstate 15				
Automobiles	52.7%	10.8%	12.6%	76.1%
Medium Trucks	3.3%	0.6%	1.7%	5.6%
Heavy Trucks	11.0%	1.0%	6.4%	18.4%
Interstate 40				
Automobiles	40.1%	8.2%	9.6%	58.0%
Medium Trucks	2.7%	0.5%	1.4%	4.6%
Heavy Trucks	22.3%	2.0%	13.1%	37.4%
State Route 58				
Automobiles	42.1%	8.6%	10.1%	60.8%
Medium Trucks	3.5%	0.6%	1.4%	5.5%
Heavy Trucks	18.2%	2.7%	12.8%	33.7%

Source: Caltrans, 2014 and 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.

SoundPlan Model

Since the City is impacted by multiple roadways and the BNSF railroads, the SoundPlan Version 7.3 noise modeling software was used. The SoundPlan's road noise algorithms are based on the FHWA Traffic Noise Model (FHWA TNM Model) and the rail noise algorithms are based on France's High-Speed Ground Transportation (HSGT) standards. The SoundPlan Model requires the input of roadways and railroads and the locations of the noise measurement receivers.

Roadway Assumptions

The SoundPlan model analyzed the noise impacts from the nearby roadways onto the project vicinity. All analyzed roadways were based on a single lane equivalent noise source combining both directions of travel. The roadway parameters used for this study have been presented above in Table J for the local

roads and below in Table L for the freeways. The average daily traffic volumes for the freeways were obtained from Advantec Consulting Engineers.

Table L – SoundPlan Model Freeway Parameters

		Vehicle Speed (MPH)		Average Daily Traffic	
Freeway	**Segment**	**Autos**	**Trucks**	**Existing**	**Year 2020**
I-15	South of Lenwood Road	70	55	57,222	64,441
I-15	North of Lenwood Road	70	55	60,343	67,956
I-15	North of SR-58	70	55	73,868	83,188
I-15	North of L Street	70	55	72,828	82,016
I-15	North of Barstow Road	70	55	67,626	76,158
I-15	North of I-40	70	55	47,338	53,311
I-40	East of I-15	70	55	18,727	21,090
I-40	East of Montara Avenue	70	55	18,831	21,207
SR-58	West of I-15	65	55	12,485	14,060

Source: Advantec Consulting Engineers, 2014.

BNSF Railroad Assumptions

The SoundPlan model analyzed the noise impacts from the BNSF Railroads that roughly parallel Main Street and State Route 58 through the City. According to a representative from BNSF, there are currently approximately 90 trains that run through Barstow each day. Each train was modeled based on a typical freight train in the SoundPlan model and were spread evenly over a 24 hour period.

Modeling Calibration

Receivers were placed at the locations of the 24-hour noise measurement sites in order to assist in the calibration of the model as well as to verify the accuracy of the SoundPlan Model. Table G below provides a summary of the calculated results and a comparison to the measured results shown above in Table M. The SoundPlan Model printouts for the model calibration are provided in Appendix D.

Table M – SoundPlan Model Calibration to Existing Noise Levels

Site No.	**Site Description**	**Calculated Noise Level[1] (dBA CNEL)**	**Measured Noise Level[2] (dBA CNEL)**	**Difference**
A	Located approximately 120 feet southeast of BNSF Railroad on the northeast side of Townsend Street.	73.8	73.8	0.0
B	Located approximately 500 feet north of I-15 centerline on the northeast corner of the Park N Ride lot on L Street.	65.2	65.6	-0.4
C	Located approximately 290 feet south of I-40 centerline on the east property line of 2450 E Main Street.	72.0	72.2	-0.2
D	Located approximately 75 feet west of Barstow Road centerline and 140 feet south of Armory Road centerline	69.6	69.7	-0.1

[1] Noise Level Calculated from SoundPlan Version 7.3.
[2] Noise measurements taken on Wednesday May 14, 2014 and Thursday May 15, 2014.

Table M above shows that the SoundPlan Model is within 0.4 dBA of the field noise measurements, which is within the range of allowed tolerances as described in Section 5.4.1, Routine Model Calibration, of the TeNS for the multiple range of noise sources impacting the City. Therefore, based on the field noise measurements, the SoundPlan Model provides an accurate representation of the project area noise levels.

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;
- 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.

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 City has established noise standards for residential and non-residential land uses in the City of Barstow General Plan that have been detailed above in Section 4.3. The standards apply to noise-sensitive land uses within the existing noise environment and to noise created by future development.

For the proposed project, the significance of anticipated noise effects is based on a comparison between predicted noise levels and the noise criteria defined by the City. Noise impacts are considered significant if existing or proposed noise-sensitive land uses would be exposed to noise levels in excess of the General Plan noise standards.

Construction-Related Noise

Implementation of the proposed project would result in the construction of industrial, casino, commercial, and residential uses. This additional development would generate noise during construction activities. Table N illustrates typical noise and activity levels of construction equipment at 50 feet.

Table N – 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

Table N – 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])
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
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

Notes:
[1] 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.
Source: Federal Highway Administration, 2006.

As shown in Table N, construction equipment generates high levels of intermittent noise ranging from 70 dB to 105 dB and would result in a significant impact where noise-sensitive land uses adjoin construction

sites. Although construction activities would result in a substantial noise increase in such locations, this impact would be short-term and would cease upon completion of construction.

The City does not have any policies in the General Plan to address construction noise and there are no ordinances in the Municipal Code that addresses construction noise. By not addressing construction noise in either the General Plan or Municipal Code, it may be interpreted that either the City does not consider construction noise a nuisance and construction activities are allowed at any time of the day or that the City provides no exceptions for construction noise and expects all construction projects to mitigate construction noise levels to the State of California interior and exterior noise standards provided above in Table D. Therefore, due to the lack of regulations for construction noise, which may be interpreted as subject to the operational noise standards, a significant noise impact may occur from construction activities that occur within close proximity to any noise sensitive land uses.

Mitigation Measure 1 is provided that requires the City to develop either a General Plan policy or an ordinance in the Municipal Code that specifically addresses construction noise. The policy or ordinance may either place limitations on the hours of the day when construction activities are exempt from the operational noise standards, declare that construction noise is always exempt from the City's operational noise standards, or detail performance noise standards that construction activities would have to adhere to.

Through implementation of Mitigation Measure 1, construction-related noise impacts would not expose persons to noise levels in excess of standards established in the General Plan or Noise Ordinance.

Operational-Related Noise

Implementation of the proposed project would result in the development of industrial, casino, commercial, and residential uses that would introduce new sensitive receptors to the City as well as generate additional traffic and stationary noise sources that may result in increased noise levels along roadways and near commercial and industrial developments.

The City of Barstow General Plan utilizes the State of California interior and exterior noise standards that are detailed above in Table D in order to assess the noise impacts to new development projects within the City. Table D shows that the most restrictive noise standards are for new residential, hotels and motels, and institutional uses, which all have an exterior noise standard of 65 dBA CNEL and interior noise standard of 45 dBA CNEL. It should be noted that new building construction typically provides greater than 20 dB of attenuation, so if a new development meets the exterior noise standard of 65 dBA CNEL, then it typically would also meet the interior noise standard of 45 dBA CNEL. The roadway and stationary source noise impacts have been analyzed separately below.

Roadway Noise

In order to quantify the traffic noise impacts along the analyzed roadways, the roadway noise contours were calculated. Noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway. For analysis comparison purposes, the CNEL noise levels were calculated at 100 feet from the centerline, which through field observations was the average distance residential units were set back from the analyzed roadways. In addition, the 55, 60, 65, and 70 dBA noise level have been calculated and the noise calculation spreadsheets are provided in Appendix E.

Year 2020 Without Project Conditions

The calculated year 2020 without project noise contours are shown in Table O.

Table O – Year 2020 Without Project Roadway Noise Contours

Roadway	Segment	CNEL at 100 Feet (dBA)[1]	Distance to Contour (feet)			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Main Street	West City Limit to SR 58	63	RW	79	171	368
Main Street	SR 58 to Woodham Avenue	62	RW	66	143	308
Main Street	Woodham Avenue to L Street	63	RW	73	158	341
Main Street	L Street to Avenue H	61	RW	53	113	244
Main Street	Avenue H to Avenue D	61	RW	57	123	265
Main Street	Avenue D to Avenue A	61	RW	58	125	269
Main Street	Avenue A to First Avenue	60	RW	RW	98	210
Main Street	First Avenue to Barstow Road	60	RW	RW	105	227
Main Street	Barstow Road to Muriel Drive	60	RW	RW	97	208
Main Street	Muriel Drive to Yucca Avenue	60	RW	RW	101	217
Main Street	Yucca Avenue to Coolwater Lane	62	RW	61	131	283
Main Street	Coolwater Lane to I-15	62	RW	67	144	309
Main Street	I-15 to I-40	62	RW	59	127	273
Barstow Road	Main Street to Mountain View Street	59	RW	RW	84	180
Barstow Road	Mountain View Street to Virginia Wy	61	RW	51	110	238
Barstow Road	Armory Road to Rimrock Road	63	RW	71	154	332
Barstow Road	South of Rimrock Road	63	RW	75	161	348
Armory Road	Barstow Road to Eleventh Street	60	RW	47	102	220
Armory Road	Eleventh Street to Muriel Drive	60	RW	49	105	227
Armory Road	Muriel Drive to Broadway Avenue	59	RW	RW	85	184
Armory Road	Broadway Avenue to Higgins Road	57	RW	RW	64	139
Armory Road	Higgins Road to Montara Road	51	RW	RW	RW	58
Montara Road	I-40 to Armory Road	62	RW	59	127	273
Montara Road	Armory Road to Rimrock Road	58	RW	RW	76	164
Muriel Drive	North of Armory Road	54	RW	RW	39	84
Muriel Drive	Armory Road to Rimrock Road	57	RW	RW	67	145
Windy Pass	Barstow Road to Eleventh Street	45	RW	RW	RW	RW
Mountain View Street	East of Barstow Road	53	RW	RW	37	79
Mountain View Street	West of Barstow Road	55	RW	RW	48	103
Avenue A	South of Main Street	51	RW	RW	RW	53
First Avenue	Main Street to BNSF Railroad	57	RW	31	66	143
First Avenue	Irwin Road to Old Highway 58	58	RW	RW	77	166
Irwin Road	Old Highway 58 to First Avenue	58	RW	32	69	149
Riverside Drive	First Avenue to Yucca Avenue	47	RW	RW	RW	30
Lenwood Road	North of Commerce Parkway	58	RW	RW	74	159
Lenwood Road	I-15 to Mercantile Way	62	RW	60	129	279

Table O – Year 2020 Without Project Roadway Noise Contours

Roadway	Segment	CNEL at 100 Feet (dBA)[1]	Distance to Contour (feet)			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Lenwood Road	South of Mercantile Way	51	RW	RW	RW	57
Commerce Parkway	North of Lenwood Road	56	RW	RW	56	120
Mercantile Way	East of Lenwood Road	48	RW	RW	RW	36
L Street	Linda Vista Avenue to Rimrock Road	59	RW	39	84	182
L Street	Rimrock Road to I-15	59	RW	RW	86	184
L Street	I-15 to Main Street	63	RW	70	150	324
Rimrock Road	L Street to H Street	59	RW	42	90	194
Rimrock Road	H Street to Barstow Road	60	RW	RW	106	228
Rimrock Road	Barstow Road to Muriel Drive	60	RW	RW	99	214
Rimrock Road	Muriel Drive to Broadway Avenue	60	RW	RW	99	214
Rimrock Road	Broadway Avenue to Montara Road	58	RW	RW	76	164
Un-Named Road	Muriel Road to Montara Road	61	RW	50	108	233

Notes:
[1] Does not take into account existing noise barriers.
RW = Noise contour is located within right-of-way of roadway.
Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

The calculated year 2020 without project noise contours in Table O shows that at 100 feet from the centerline of each roadway segment that the noise level would range from 45 to 63 dBA CNEL. No analyzed roadway segment at 100 feet from the centerline would exceed the City's most restrictive exterior noise standard for new residential, hotel and motel, and institutional uses of 65 dBA CNEL for the year 2020 without project conditions.

Year 2020 With Project Conditions

The calculated year 2020 with project noise contours are shown in Table P.

Table P – Year 2020 With Project Roadway Noise Contours

Roadway	Segment	CNEL at 100 Feet (dBA)[1]	Distance to Contour (feet)			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Main Street	West City Limit to SR 58	64	RW	83	178	383
Main Street	SR 58 to Woodham Avenue	63	RW	70	151	325
Main Street	Woodham Avenue to L Street	64	RW	82	177	380
Main Street	L Street to Avenue H	61	RW	58	125	269
Main Street	Avenue H to Avenue D	62	RW	62	133	286
Main Street	Avenue D to Avenue A	62	RW	63	135	290
Main Street	Avenue A to First Avenue	60	RW	RW	102	219
Main Street	First Avenue to Barstow Road	60	RW	RW	106	229
Main Street	Barstow Road to Muriel Drive	60	RW	RW	97	208

Table P – Year 2020 With Project Roadway Noise Contours

Roadway	Segment	CNEL at 100 Feet (dBA)[1]	Distance to Contour (feet)			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Main Street	Muriel Drive to Yucca Avenue	60	RW	RW	101	217
Main Street	Yucca Avenue to Coolwater Lane	62	RW	61	131	283
Main Street	Coolwater Lane to I-15	62	RW	67	144	309
Main Street	I-15 to I-40	62	RW	62	133	287
Barstow Road	Main Street to Mountain View Street	59	RW	RW	85	183
Barstow Road	Mountain View Street to Virginia Wy	61	RW	53	114	247
Barstow Road	Armory Road to Rimrock Road	63	RW	79	171	369
Barstow Road	South of Rimrock Road	64	RW	82	176	380
Armory Road	Barstow Road to Eleventh Street	60	RW	47	102	220
Armory Road	Eleventh Street to Muriel Drive	60	RW	49	105	227
Armory Road	Muriel Drive to Broadway Avenue	59	RW	RW	85	184
Armory Road	Broadway Avenue to Higgins Road	57	RW	RW	64	139
Armory Road	Higgins Road to Montara Road	51	RW	RW	RW	58
Montara Road	I-40 to Armory Road	62	RW	62	133	287
Montara Road	Armory Road to Rimrock Road	59	RW	RW	84	182
Muriel Drive	North of Armory Road	54	RW	RW	39	84
Muriel Drive	Armory Road to Rimrock Road	57	RW	RW	67	145
Windy Pass	Barstow Road to Eleventh Street	45	RW	RW	RW	RW
Mountain View Street	East of Barstow Road	53	RW	RW	37	79
Mountain View Street	West of Barstow Road	55	RW	RW	48	103
Avenue A	South of Main Street	51	RW	RW	RW	53
First Avenue	Main Street to BNSF Railroad	58	RW	33	70	151
First Avenue	Irwin Road to Old Highway 58	58	RW	RW	79	169
Irwin Road	Old Highway 58 to First Avenue	58	RW	33	71	153
Riverside Drive	First Avenue to Yucca Avenue	48	RW	RW	RW	32
Lenwood Road	North of Commerce Parkway	59	RW	RW	87	188
Lenwood Road	I-15 to Mercantile Way	62	RW	63	137	294
Lenwood Road	South of Mercantile Way	55	RW	RW	RW	95
Commerce Parkway	North of Lenwood Road	58	RW	35	74	160
Mercantile Way	East of Lenwood Road	48	RW	RW	RW	36
L Street	Linda Vista Avenue to Rimrock Road	59	RW	39	84	182
L Street	Rimrock Road to I-15	60	RW	44	95	205
L Street	I-15 to Main Street	63	RW	74	160	346
Rimrock Road	L Street to H Street	59	RW	43	92	198
Rimrock Road	H Street to Barstow Road	60	RW	RW	107	230
Rimrock Road	Barstow Road to Muriel Drive	60	RW	RW	104	224

Table P – Year 2020 With Project Roadway Noise Contours

Roadway	Segment	CNEL at 100 Feet (dBA)[1]	Distance to Contour (feet)			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Rimrock Road	Muriel Drive to Broadway Avenue	60	RW	RW	100	216
Rimrock Road	Broadway Avenue to Montara Road	58	RW	RW	76	164
Un-Named Road	Muriel Road to Montara Road	61	RW	51	109	235

Notes:
[1] Does not take into account existing noise barriers.
RW = Noise contour is located within right-of-way of roadway.
Source: FHWA Traffic Noise Prediction Model- FHWA-RD-77-108.

The calculated year 2020 with project noise contours in Table P shows that at 100 feet from the centerline of each roadway segment that the noise level would range from 45 to 63 dBA CNEL. No analyzed roadway segment at 100 feet from the centerline would exceed the City's most restrictive exterior noise standard for new residential, hotel and motel, and institutional uses of 65 dBA CNEL for the year 2020 with project conditions.

Project Roadway Noise Impacts

Table O and Table P above both show that at 100 feet from the centerline of each analyzed roadway segment that no exceedance would occur of the City most restrictive exterior noise standard for new residential, hotel and motel, and institutional uses of 65 dBA CNEL for both year 2020 without and with project scenarios. However, it should be noted that Table O and Table P only analyzed the roadway noise impacts from local roadways. Figure 5 shows the combined roadway and railroad noise impacted areas for the year 2020 with project scenario. As shown on Figure 5, there are large areas of the City near the freeways and railroads that exceed the City's 65 dBA CNEL exterior noise standards.

The General Plan Policies III.3.1, III.3.2, III.3.3, and III.3.5 provide actions aimed at reducing noise impacts. Policy III.3.1 establishes appropriate noise standards for different land use types. Policy III.3.2 requires that new multiple-family residential uses provide sound attenuation measures to reduce interior noise levels to 45 dBA CNEL. Policy III.3.3 requires the implementation of noise mitigation for all new development that exceeds the City noise standards. Policy III3.5 requires the City to assess all new single-family residential developments in order to determine if there is a need for noise attenuation. Therefore, based on the existing regulatory requirements and the policies contained within the General Plan, there is certainty that roadway noise generated by future development contemplated by the proposed project would not expose persons to noise levels in excess of standards established in the General Plan or Noise Ordinance.

Stationary Noise

The proposed project would result in the development of industrial, casino, commercial, and residential uses within the City. The primary stationary noise sources from residential land uses are landscaping and other maintenance activities, forced air mechanical systems for heating and cooling structures. The primary noise sources from commercial uses are from forced air mechanical systems, truck unloading areas and other noise sources associated with the movement of merchandise. The primary noise sources associated with industrial uses are from the use of heavy trucks and the movement of freight around the industrial facilities through use of forklifts and other mechanical equipment as well as noisy equipment used in manufacturing or machining processes.

City Limit

City Limit

City Limit

City Limit

City Limit

Noise level
dBA CNEL

	<= 60
60 <	<= 65
65 <	<= 70
70 <	

SOURCE: SoundPlan Version 7.3.

N

VISTA ENVIRONMENTAL

Figure 5
Year 2020 With General Plan Revision Noise Contour Map

The City requires that noise from new stationary sources located within the City comply with the City's noise ordinance, which limits the acceptable noise at the property line of the impacted property to reduce nuisances to sensitive land uses. Although vehicle noise on public roadways is exempt from local regulation, when vehicles operate on private property they may be regulated as stationary noise sources and would also be required to meet the noise limits provided in the City's noise ordinance. Therefore, based on the existing regulatory requirements provided in the City Noise Ordinance, there is certainty that stationary noise created from future development contemplated by the proposed project would not expose persons to noise levels in excess of standards established in the General Plan or Noise Ordinance.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Mitigation Measure 1:

The City shall develop either a General Plan policy or an ordinance in the Municipal Code that specifically addresses construction noise. The policy or ordinance may either place limitations on the hours of the day when construction activities are exempt from the operational noise standards, declare that construction noise is always exempt from the City's operation noise standards, or detail performance noise standards that construction activities would have to adhere to.

Level of Significance After Mitigation

Less than significant impact.

7.3 Generation of Excessive Groundborne Vibration

The proposed project may expose persons to or generation of excessive groundborne vibration or groundborne noise levels. Groundborne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of groundborne vibrations typically only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Construction activities and the operation of heavy trucks, buses and trains can produce vibration that may be felt by adjacent uses. The short-term and long-term groundborne vibration impacts associated with project construction and operations are discussed separately below.

Construction-Related Vibration Impacts

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 Q gives approximate vibration levels for particular construction activities. The data in Table Q provides a reasonable estimate for a wide range of soil conditions.

Table Q – Vibration Source Levels for Construction Equipment

Equipment		Peak Particle Velocity (inches/second)	Approximate Vibration Level (L_v)at 25 feet
Pile driver (impact)	Upper range	1.518	112
	typical	0.644	104
Pile driver (sonic)	Upper range	0.734	105
	typical	0.170	93
Clam shovel drop (slurry wall)		0.202	94

Table Q – Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity (inches/second)	Approximate Vibration Level (L_v)at 25 feet
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 potential vibration levels shown in Table Q from representative construction equipment show that construction activities occur in close proximity to an existing structure that there is potential for damage to the structure and annoyance to any persons within the nearby structures. The City does not have any policies in the General Plan to address vibration and there are no ordinances in the Municipal Code that addresses vibration. Therefore, construction-related vibration impacts associated with development of the proposed project would result in a significant impact.

Mitigation Measure 2 is provided that requires the City to develop either a General Plan policy or an ordinance in the Municipal Code that specifically addresses vibration. The policy or ordinance shall consider either utilizing Caltrans vibration threshold guidance for annoyance and/or building damage provided above in Table E and Table F or consider utilizing the County of San Bernardino Ordinance 87.0910 for controlling vibration, which restricts vibration levels to 0.2 inches per second at the property line (or nearest sensitive receptor).

Through implementation of Mitigation Measure 2, construction-related vibration impacts would not expose persons to excessive ground-borne vibration levels.

Operations-Related Vibration Impacts

The potential operational sources of vibration in the City are from heavy trucks and trains, which are analyzed separately below.

Roadway Vibration Impacts

Caltrans has studied the effects of propagation of vehicle vibration on sensitive land uses in *Transportation- and Construction-Induced Vibration Guidance Manual*, June 2004, and notes that "heavy trucks, and quite frequently buses, generate the highest earthborn vibration of normal traffic." Caltrans further notes that the highest traffic-generated vibrations are along freeways and State routes. Their study finds that "vibrations measured on freeway shoulders (five meters [15 feet] from the centerline of the nearest lane) have never exceeded 0.08 inches per second, with the worst combinations of heavy trucks. This level coincides with the maximum recommended safe level for ruins and ancient monuments (and historic buildings)." Typically, trucks do not generate high levels of vibration because they travel on rubber wheels and do not have vertical movement, which generates ground vibration. Roadways within the City are not anticipated to generate excessive vibration. Impacts are less than significant.

Railroad Vibration Impacts

Vibration levels in the City from trains are dependent on site specific conditions such as geology and the condition of the railroad track and train wheels. Currently, there are approximately 90 trains that pass

through the City each day on the BNSF rail lines. Implementation of the General Plan may add new sensitive receptors in areas adjacent to the railroads. Placement of new residential land uses near a railroad could result in exposing persons to excessive groundborne vibration from train operations. Currently, the City does not have any policies in the General Plan to address vibration and there are no ordinances in the Municipal Code that addresses vibration. Therefore, groundborne vibration impacts from railroad operations would result in a significant impact.

Mitigation Measure 2 is provided that requires the City to develop either a General Plan policy or an ordinance in the Municipal Code that specifically addresses vibration. The policy or ordinance shall consider either utilizing Caltrans vibration threshold guidance for annoyance and/or building damage provided above in Table E and Table F or consider utilizing the County of San Bernardino Ordinance 87.0910 for controlling vibration, which restricts vibration levels to 0.2 inches per second at the property line (or nearest sensitive receptor).

Through implementation of Mitigation Measure 2, operational railroad vibration impacts would not expose persons to excessive ground-borne vibration levels.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Mitigation Measure 2:

The City shall develop either a General Plan policy or an ordinance in the Municipal Code that specifically addresses vibration. The policy or ordinance shall consider either utilizing Caltrans vibration threshold guidance for annoyance and/or building damage provided above in Table D and Table E or consider utilizing the County of San Bernardino Ordinance 87.0910 for controlling vibration, which restricts vibration levels to 0.2 inches per second at the property line (or nearest sensitive receptor).

Level of Significance After Mitigation

Less than significant impact.

7.4 Permanent Noise Level Increase

The ongoing operation of the proposed project may result in a potential substantial permanent increase in ambient noise levels in the project vicinity above existing levels without the proposed project. Potential noise impacts associated with the operations of the development contemplated in the General Plan would be from project-generated vehicular traffic on the project vicinity roadways.

Neither the General Plan nor the CEQA Guidelines define what constitutes a “substantial permanent increase to ambient noise levels”, as such, this impact analysis has utilized guidance from the Federal Transit Administration for a moderate impact that has been detailed above in Table C.

The potential traffic noise impacts created by the development contemplated in the General Plan have been analyzed through utilization of the FHWA model and parameters described above in Section 6.1. The proposed project’s potential traffic noise impacts have been calculated through a comparison of the year 2020 without project scenario to the year 2020 with project scenario. The results of this comparison are shown in Table R and the FHWA model noise calculation spreadsheets are provided in Appendix E.

Table R – Year 2020 Project Traffic Noise Contributions

Roadway	Segment	dBA CNEL at 100 feet			
		Without Project	With Project	Project Contribution	Increase Threshold[2]
Main Street	West City Limit to SR 58	63	64	1	+2 dBA
Main Street	SR 58 to Woodham Avenue	62	63	1	+2 dBA
Main Street	Woodham Avenue to L Street	63	64	1	+2 dBA
Main Street	L Street to Avenue H	61	61	0	+2 dBA
Main Street	Avenue H to Avenue D	61	62	1	+2 dBA
Main Street	Avenue D to Avenue A	61	62	1	+2 dBA
Main Street	Avenue A to First Avenue	60	60	0	+2 dBA
Main Street	First Avenue to Barstow Road	60	60	0	+2 dBA
Main Street	Barstow Road to Muriel Drive	60	60	0	+2 dBA
Main Street	Muriel Drive to Yucca Avenue	60	60	0	+2 dBA
Main Street	Yucca Avenue to Coolwater Lane	62	62	0	+2 dBA
Main Street	Coolwater Lane to I-15	62	62	0	+2 dBA
Main Street	I-15 to I-40	62	62	0	+2 dBA
Barstow Road	Main Street to Mountain View Street	59	59	0	+3 dBA
Barstow Road	Mountain View Street to Virginia Way	61	61	0	+2 dBA
Barstow Road	Armory Road to Rimrock Road	63	63	0	+2 dBA
Barstow Road	South of Rimrock Road	63	64	1	+2 dBA
Armory Road	Barstow Road to Eleventh Street	60	60	0	+2 dBA
Armory Road	Eleventh Street to Muriel Drive	60	60	0	+2 dBA
Armory Road	Muriel Drive to Broadway Avenue	59	59	0	+3 dBA
Armory Road	Broadway Avenue to Higgins Road	57	57	0	+3 dBA
Armory Road	Higgins Road to Montara Road	51	51	0	+5 dBA
Montara Road	I-40 to Armory Road	62	62	0	+2 dBA
Montara Road	Armory Road to Rimrock Road	58	59	1	+3 dBA
Muriel Drive	North of Armory Road	54	54	0	+5 dBA
Muriel Drive	Armory Road to Rimrock Road	57	57	0	+3 dBA
Windy Pass	Barstow Road to Eleventh Street	45	45	0	+7 dBA
Mountain View Street	East of Barstow Road	53	53	0	+5 dBA
Mountain View Street	West of Barstow Road	55	55	0	+3 dBA
Avenue A	South of Main Street	51	51	0	+5 dBA
First Avenue	Main Street to BNSF Railroad	57	58	1	+3 dBA
First Avenue	Irwin Road to Old Highway 58	58	58	0	+3 dBA
Irwin Road	Old Highway 58 to First Avenue	58	58	0	+3 dBA
Riverside Drive	First Avenue to Yucca Avenue	47	48	1	+7 dBA
Lenwood Road	North of Commerce Parkway	58	59	1	+3 dBA
Lenwood Road	I-15 to Mercantile Way	62	62	0	+2 dBA
Lenwood Road	South of Mercantile Way	51	55	**4**	+5 dBA
Commerce Parkway	North of Lenwood Road	56	58	2	+3 dBA
Mercantile Way	East of Lenwood Road	48	48	0	+7 dBA
L Street	Linda Vista Avenue to Rimrock Road	59	59	0	+3 dBA
L Street	Rimrock Road to I-15	59	60	1	+3 dBA
L Street	I-15 to Main Street	63	63	0	+2 dBA
Rimrock Road	L Street to H Street	59	59	0	+3 dBA
Rimrock Road	H Street to Barstow Road	60	60	0	+2 dBA
Rimrock Road	Barstow Road to Muriel Drive	60	60	0	+2 dBA

Table R – Year 2020 Project Traffic Noise Contributions

Roadway	Segment	dBA CNEL at 100 feet			Increase Threshold[2]
		Without Project	With Project	Project Contribution	
Rimrock Road	Muriel Drive to Broadway Avenue	60	60	0	+2 dBA
Rimrock Road	Broadway Avenue to Montara Road	58	58	0	+3 dBA
Un-Named Road	Muriel Road to Montara Road	61	61	0	+2 dBA

Notes:
[2] Increase threshold based on the significance thresholds defined above in Table C.
Source: FHWA Traffic Noise Prediction Model FHWA-RD-77-108.

Table R shows that the greatest project-related roadway noise increase of 4 dBA CNEL would occur on Lenwood Road south of Mercantile Way. The proposed project's permanent noise increases from the generation of additional vehicular traffic would not exceed the increase thresholds detailed above. Therefore, the proposed project would not result in a substantial permanent increase in ambient noise levels. Impacts would be less than significant.

Level of Significance

Less than significant impact.

7.5 Temporary Noise Level Increase

The proposed project may create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above noise levels existing without the proposed project. As discussed in Section 7.2, implementation of the proposed General Plan would result in the development of industrial, casino, commercial, and residential uses. This additional development would generate noise during construction activities. Table N above details typical noise levels associated with the operation of construction equipment at a distance of 50 feet, which shows that construction equipment generates high levels of intermittent noise ranging from 70 dB to 105 dB and may result in a significant impact where sensitive land uses adjoin construction sites. Although, construction activities would result in a substantial noise increase in such locations, this impact would be short-term and would cease upon completion of construction.

Mitigation Measure 1 has been provided above in Section 7.2 and requires the City to develop either a General Plan policy or an ordinance in the Municipal Code that specifically addresses construction noise. Through implementation of Mitigation Measure 1, construction-related noise impacts would not expose persons to noise levels in excess of standards established in the General Plan or Noise Ordinance.

Level of Significance

Potentially significant impact.

Mitigation Measures

Mitigation Measure 1 provided above in Section 7.2.

Level of Significance After Mitigation

Less than significant impact.

7.6 Aircraft Noise

The proposed project would not expose people residing or working in the City to excessive noise levels from aircraft. The nearest airport is Barstow Daggett County Airport, located approximately eight miles east of the City limits. According to the *Airport Comprehensive Land Use Plan Barstow-Daggett Airport*, prepared by San Bernardino County, May, 1992, found that the 65 dBA CNEL noise contours barely exceed outside of the Airport's property and are limited to east of Hidden Springs Road. Although, aircraft noise is regularly heard in the quieter areas of the City, the aircraft fly overs are typically at high altitudes and do not exceed any noise standards. No impact would occur from aircraft noise.

Level of Significance

No impact.

8.0 REFERENCES

Advantec Consulting Engineers, *Traffic Study for Barstow 2014 General Plan Amendment*, June 20, 2014.

California Department of Transportation, *2012 Annual Average Daily Truck Traffic on the California State Highway System*, 2014.

California Department of Transportation (Caltrans), *Technical Noise Supplement*, November 2009.

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

City of Barstow, *City of Barstow General Plan*, April, 1997.

County of San Bernardino, *Airport Comprehensive Land Use Plan Barstow-Daggett Airport*, May, 1992.

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

U.S. Department of Transportation, *Handbook for Railroad Noise Measurement and Analysis*, October, 2009.

U.S. Department of Transportation, *Highway Traffic Noise: Analysis and Abatement Guidance*, December, 2011.

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

APPENDIX A

Study Area Photo Index

Noise Measurement Site A - looking north

Noise Measurement Site A - looking northeast


Noise Measurement Site A - looking east


Noise Measurement Site A - looking southeast


Noise Measurement Site A - looking south


Noise Measurement Site A - looking southwest


Noise Measurement Site A - looking west


Noise Measurement Site A - looking northwest

Noise Measurement Site B - looking north

Noise Measurement Site B - looking northeast

Noise Measurement Site B - looking east

Noise Measurement Site B - looking southeast

Noise Measurement Site B - looking south

Noise Measurement Site B - looking southwest

Noise Measurement Site B - looking west

Noise Measurement Site B - looking northwest

Noise Measurement Site C - looking north

Noise Measurement Site C - looking northeast

Noise Measurement Site C - looking east

Noise Measurement Site C - looking southeast

Noise Measurement Site C - looking south

Noise Measurement Site C - looking southwest

Noise Measurement Site C - looking west

Noise Measurement Site C - looking northwest

Noise Measurement Site D - looking north

Noise Measurement Site D - looking northeast

Noise Measurement Site D - looking east

Noise Measurement Site D - looking southeast

Noise Measurement Site D - looking south

Noise Measurement Site D - looking southwest

Noise Measurement Site D - looking west

Noise Measurement Site D - looking northwest

Noise Measurement Site 1 - looking north

Noise Measurement Site 1 - looking northeast

Noise Measurement Site 1 - looking east

Noise Measurement Site 1 - looking southeast

Noise Measurement Site 1 - looking south

Noise Measurement Site 1 - looking southwest

Noise Measurement Site 1 - looking west

Noise Measurement Site 1 - looking northwest

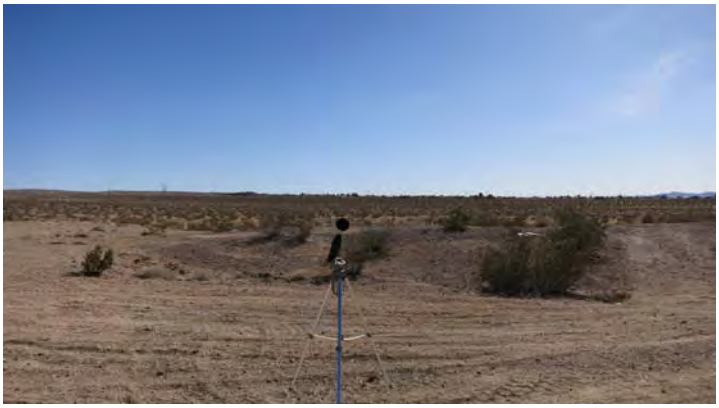
Noise Measurement Site 2 - looking north

Noise Measurement Site 2 - looking northeast

Noise Measurement Site 2 - looking east

Noise Measurement Site 2 - looking southeast

Noise Measurement Site 2 - looking south



Noise Measurement Site 2 - looking southwest

Noise Measurement Site 2 - looking west

Noise Measurement Site 2 - looking northwest

Noise Measurement Site 3 - looking north

Noise Measurement Site 3 - looking northeast

Noise Measurement Site 3 - looking east

Noise Measurement Site 3 - looking southeast

Noise Measurement Site 3 - looking south

Noise Measurement Site 3 - looking southwest

Noise Measurement Site 3 - looking west

Noise Measurement Site 3 - looking northwest

Noise Measurement Site 4 - looking north

Noise Measurement Site 4 - looking northeast

Noise Measurement Site 4 - looking east

Noise Measurement Site 4 - looking southeast

Noise Measurement Site 4 - looking south

Noise Measurement Site 4 - looking southwest

Noise Measurement Site 4 - looking west

Noise Measurement Site 4 - looking northwest

Noise Measurement Site 5 - looking north

Noise Measurement Site 5 - looking northeast

Noise Measurement Site 5 - looking east

Noise Measurement Site 5 - looking southeast

Noise Measurement Site 5 - looking south

Noise Measurement Site 5 - looking southwest

Noise Measurement Site 5 - looking west

Noise Measurement Site 5 - looking northwest

Noise Measurement Site 6 - looking north

Noise Measurement Site 6 - looking northeast

Noise Measurement Site 6 - looking east

Noise Measurement Site 6 - looking southeast

Noise Measurement Site 6 - looking south

Noise Measurement Site 6 - looking southwest

Noise Measurement Site 6 - looking west

Noise Measurement Site 6 - looking northwest

Noise Measurement Site 7 - looking north

Noise Measurement Site 7 - looking northeast

Noise Measurement Site 7 - looking east

Noise Measurement Site 7 - looking southeast

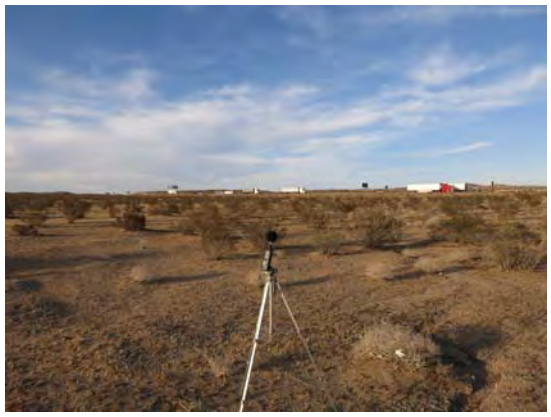
Noise Measurement Site 7 - looking south

Noise Measurement Site 7 - looking southwest

Noise Measurement Site 7 - looking west

Noise Measurement Site 7 - looking northwest

Noise Measurement Site 8 - looking north



Noise Measurement Site 8 - looking northeast

Noise Measurement Site 8 - looking east

Noise Measurement Site 8 - looking southeast

Noise Measurement Site 8 - looking south

Noise Measurement Site 8 - looking southwest

Noise Measurement Site 8 - looking west

Noise Measurement Site 8 - looking northwest

APPENDIX B

Field Noise Measurement Printouts

Site A - On Townsend St 120 feet from BNSF RR

Date Time=05/14/14 2:34:00 PM
Sampling Time=3 Freq Weighting=A Weighting=Slow
Record Num= 29000 CNEL(24hr)= 73.5
Leq 67.7 SEL Value=116.7 Ldn(24hr)= 73.4
MIN 32.1 Min Leq1hr = 41.2 8:54:03 PM
MAX 101.8 Max Leq1hr = 74.9 1:17:30 PM

Site B - NE corner of Park N Ride Lot on L Street

Date Time=05/14/14 2:49:00 PM
Sampling Time=3 Freq Weighting=A Weighting=Slow
Record Num= 29000 CNEL(24hr)= 64.7
Leq 58.3 SEL Value=125.6 Ldn(24hr)= 64.4
MIN 37.7 Min Leq1hr = 56.3 1:30:00 AM
MAX 77.6 Max Leq1hr = 59.8 4:27:21 PM

Site C - On east property line of 2450 E Main St

Time=05/14/14 3:07:00 PM
Sampling Time=3 Freq Weighting=A Weighting=Slow
Record Num= 29000 CNEL(24hr)= 69.4
Leq 62.7 SEL Value=112.1 Ldn(24hr)= 69.3
MIN 35.6 Min Leq1hr = 57.5 1:08:39 AM
MAX 90.3 Max Leq1hr = 66.2 11:55:21 AM

Site D - SW Corner of Armory Rd & Barstow Rd

Date Time=05/14/14 3:28:00 PM
Sampling Time=3 Freq Weighting=A Weighting=Slow
Record Num= 29000 CNEL(24hr)= 68.8
Leq 64.7 SEL Value=114.4 Ldn(24hr)= 68.3
MIN 41.3 Min Leq1hr = 53.6 2:19:03 AM
MAX 93.9 Max Leq1hr = 69.8 2:47:00 PM

Site A - On Townsend St 120 feet from BNSF RR

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
59.2	14:34:00		59.2	59.2
63.7	14:34:03		63.7	63.7
65.5	14:34:06		65.5	65.5
61.9	14:34:09		61.9	61.9
57.7	14:34:12		57.7	57.7
48.4	14:34:15		48.4	48.4
50.1	14:34:18		50.1	50.1
53.5	14:34:21		53.5	53.5
59	14:34:24		59	59
60.2	14:34:27		60.2	60.2
55	14:34:30		55	55
48.8	14:34:33		48.8	48.8
52.4	14:34:36		52.4	52.4
58.7	14:34:39		58.7	58.7
51.8	14:34:42		51.8	51.8
49	14:34:45		49	49
58.5	14:34:48		58.5	58.5
62.1	14:34:51		62.1	62.1
50.6	14:34:54		50.6	50.6
58.6	14:34:57		58.6	58.6
55.4	14:35:00		55.4	55.4
59	14:35:03		59	59
60.3	14:35:06		60.3	60.3
66.8	14:35:09		66.8	66.8
58.9	14:35:12		58.9	58.9
56.2	14:35:15		56.2	56.2
50.8	14:35:18		50.8	50.8
53.8	14:35:21		53.8	53.8
53.4	14:35:24		53.4	53.4
54.8	14:35:27		54.8	54.8
49.2	14:35:30		49.2	49.2
51.5	14:35:33		51.5	51.5
47.8	14:35:36		47.8	47.8
45.2	14:35:39		45.2	45.2
49.5	14:35:42		49.5	49.5
46.1	14:35:45		46.1	46.1
45.4	14:35:48		45.4	45.4
45.5	14:35:51		45.5	45.5
51.1	14:35:54		51.1	51.1
46.4	14:35:57		46.4	46.4
43.7	14:36:00		43.7	43.7
45.2	14:36:03		45.2	45.2
51.2	14:36:06		51.2	51.2
51.8	14:36:09		51.8	51.8
47.6	14:36:12		47.6	47.6
46.3	14:36:15		46.3	46.3
44.6	14:36:18		44.6	44.6
43	14:36:21		43	43
42.2	14:36:24		42.2	42.2
44.5	14:36:27		44.5	44.5
46.3	14:36:30		46.3	46.3
45.3	14:36:33		45.3	45.3
43.5	14:36:36		43.5	43.5
45	14:36:39		45	45
43.3	14:36:42		43.3	43.3
48.6	14:36:45		48.6	48.6
43.6	14:36:48		43.6	43.6
45	14:36:51		45	45
41.4	14:36:54		41.4	41.4
41.3	14:36:57		41.3	41.3
42.5	14:37:00		42.5	42.5
41.1	14:37:03		41.1	41.1
40	14:37:06		40	40
40.9	14:37:09		40.9	40.9
41.1	14:37:12		41.1	41.1
43.2	14:37:15		43.2	43.2
44.4	14:37:18		44.4	44.4
43.3	14:37:21		43.3	43.3
45.2	14:37:24		45.2	45.2
42.1	14:37:27		42.1	42.1
46	14:37:30		46	46
41.8	14:37:33		41.8	41.8
44.1	14:37:36		44.1	44.1
43.6	14:37:39		43.6	43.6
45.3	14:37:42		45.3	45.3
45.7	14:37:45		45.7	45.7
45.9	14:37:48		45.9	45.9
46.8	14:37:51		46.8	46.8
50.2	14:37:54		50.2	50.2
49.4	14:37:57		49.4	49.4
54	14:38:00		54	54
53.7	14:38:03		53.7	53.7
56.9	14:38:06		56.9	56.9
56.1	14:38:09		56.1	56.1
62.6	14:38:12		62.6	62.6
66.5	14:38:15		66.5	66.5
63.5	14:38:18		63.5	63.5
67.9	14:38:21		67.9	67.9
64.5	14:38:24		64.5	64.5
69.2	14:38:27		69.2	69.2
69.1	14:38:30		69.1	69.1
60.4	14:38:33		60.4	60.4
60.8	14:38:36		60.8	60.8
62.5	14:38:39		62.5	62.5
64.6	14:38:42		64.6	64.6
64.4	14:38:45		64.4	64.4
62.5	14:38:48		62.5	62.5
61.5	14:38:51		61.5	61.5
62	14:38:54		62	62
60.4	14:38:57		60.4	60.4
60.1	14:39:00		60.1	60.1
60.7	14:39:03		60.7	60.7
61.4	14:39:06		61.4	61.4
61.4	14:39:09		61.4	61.4
64.4	14:39:12		64.4	64.4
66.3	14:39:15		66.3	66.3
64.6	14:39:18		64.6	64.6
62.4	14:39:21		62.4	62.4
61.5	14:39:24		61.5	61.5
69	14:39:27		69	69
62	14:39:30		62	62
63	14:39:33		63	63
61.2	14:39:36		61.2	61.2
69.6	14:39:39		69.6	69.6
68	14:39:42		68	68
68.1	14:39:45		68.1	68.1
68.7	14:39:48		68.7	68.7
69.8	14:39:51		69.8	69.8
68.8	14:39:54		68.8	68.8
68.2	14:39:57		68.2	68.2
68.6	14:40:00		68.6	68.6
69	14:40:03		69	69
69.4	14:40:06		69.4	69.4
67.6	14:40:09		67.6	67.6
68.8	14:40:12		68.8	68.8
70.6	14:40:15		70.6	70.6
72.9	14:40:18		72.9	72.9
72.2	14:40:21		72.2	72.2
69.2	14:40:24		69.2	69.2
65.4	14:40:27		65.4	65.4
63	14:40:30		63	63
63.2	14:40:33		63.2	63.2
62.9	14:40:36		62.9	62.9
62.7	14:40:39		62.7	62.7
62.8	14:40:42		62.8	62.8
63.6	14:40:45		63.6	63.6
65	14:40:48		65	65
68.2	14:40:51		68.2	68.2
67.8	14:40:54		67.8	67.8
66.9	14:40:57		66.9	66.9
65.1	14:41:00		65.1	65.1
62.3	14:41:03		62.3	62.3
58.9	14:41:06		58.9	58.9
54.4	14:41:09		54.4	54.4
50.2	14:41:12		50.2	50.2
48.8	14:41:15		48.8	48.8
48.8	14:41:18		48.8	48.8
49	14:41:21		49	49
47.7	14:41:24		47.7	47.7
48.1	14:41:27		48.1	48.1
50.3	14:41:30		50.3	50.3
46.4	14:41:33		46.4	46.4
46	14:41:36		46	46
46.8	14:41:39		46.8	46.8
44.1	14:41:42		44.1	44.1
42.6	14:41:45		42.6	42.6
41.3	14:41:48		41.3	41.3
40.3	14:41:51		40.3	40.3
42.9	14:41:54		42.9	42.9
43.4	14:41:57		43.4	43.4
41.7	14:42:00		41.7	41.7
41.5	14:42:03		41.5	41.5
40.1	14:42:06		40.1	40.1
43.6	14:42:09		43.6	43.6
43.4	14:42:12		43.4	43.4
41.6	14:42:15		41.6	41.6
43.4	14:42:18		43.4	43.4
40	14:42:21		40	40
38.4	14:42:24		38.4	38.4
39.2	14:42:27		39.2	39.2
40.2	14:42:30		40.2	40.2
42.8	14:42:33		42.8	42.8
39.4	14:42:36		39.4	39.4
40.2	14:42:39		40.2	40.2
39.6	14:42:42		39.6	39.6
38.9	14:42:45		38.9	38.9

Site B - NE corner of Park N Ride Lot on L Street

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
55.1	14:49:00		55.1	55.1
69.5	14:49:03		69.5	69.5
62.8	14:49:06		62.8	62.8
67.2	14:49:09		67.2	67.2
65.7	14:49:12		65.7	65.7
62.4	14:49:15		62.4	62.4
64	14:49:18		64	64
60	14:49:21		60	60
62.1	14:49:24		62.1	62.1
60.3	14:49:27		60.3	60.3
57.8	14:49:30		57.8	57.8
56.8	14:49:33		56.8	56.8
55.8	14:49:36		55.8	55.8
65.1	14:49:39		65.1	65.1
63.7	14:49:42		63.7	63.7
64.2	14:49:45		64.2	64.2
63.8	14:49:48		63.8	63.8
64.3	14:49:51		64.3	64.3
69.2	14:49:54		69.2	69.2
63.5	14:49:57		63.5	63.5
65.6	14:50:00		65.6	65.6
64.4	14:50:03		64.4	64.4
64.2	14:50:06		64.2	64.2
61	14:50:09		61	61
61.5	14:50:12		61.5	61.5
60.8	14:50:15		60.8	60.8
68.6	14:50:18		68.6	68.6
61	14:50:21		61	61
64.1	14:50:24		64.1	64.1
68.2	14:50:27		68.2	68.2
69.4	14:50:30		69.4	69.4
62.9	14:50:33		62.9	62.9
59.9	14:50:36		59.9	59.9
61	14:50:39		61	61
60.4	14:50:42		60.4	60.4
60.7	14:50:45		60.7	60.7
62.9	14:50:48		62.9	62.9
63.8	14:50:51		63.8	63.8
64.8	14:50:54		64.8	64.8
62.4	14:50:57		62.4	62.4
69.1	14:51:00		69.1	69.1
63.4	14:51:03		63.4	63.4
62.2	14:51:06		62.2	62.2
63.3	14:51:09		63.3	63.3
65.4	14:51:12		65.4	65.4
62.4	14:51:15		62.4	62.4
69	14:51:18		69	69
60.8	14:51:21		60.8	60.8
65.9	14:51:24		65.9	65.9
63.4	14:51:27		63.4	63.4
69.3	14:51:30		69.3	69.3
63	14:51:33		63	63
64.2	14:51:36		64.2	64.2
69.2	14:51:39		69.2	69.2
62.4	14:51:42		62.4	62.4
61.3	14:51:45		61.3	61.3
61.6	14:51:48		61.6	61.6
59.7	14:51:51		59.7	59.7
62.4	14:51:54		62.4	62.4
60.8	14:51:57		60.8	60.8
61.5	14:52:00		61.5	61.5
62.6	14:52:03		62.6	62.6
60.4	14:52:06		60.4	60.4
60.2	14:52:09		60.2	60.2
57.4	14:52:12		57.4	57.4
57.1	14:52:15		57.1	57.1
58.6	14:52:18		58.6	58.6
57.1	14:52:21		57.1	57.1
57.9	14:52:24		57.9	57.9
56.8	14:52:27		56.8	56.8
57	14:52:30		57	57
58.8	14:52:33		58.8	58.8
58.9	14:52:36		58.9	58.9
59.5	14:52:39		59.5	59.5
61.4	14:52:42		61.4	61.4
59.9	14:52:45		59.9	59.9
58.7	14:52:48		58.7	58.7
57.1	14:52:51		57.1	57.1
57.7	14:52:54		57.7	57.7
58.1	14:52:57		58.1	58.1
58.3	14:53:00		58.3	58.3
60.3	14:53:03		60.3	60.3
57.5	14:53:06		57.5	57.5
58.8	14:53:09		58.8	58.8
59.9	14:53:12		59.9	59.9
59.7	14:53:15		59.7	59.7
59.4	14:53:18		59.4	59.4
59.6	14:53:21		59.6	59.6
60.6	14:53:24		60.6	60.6
57.6	14:53:27		57.6	57.6
56.7	14:53:30		56.7	56.7
57.9	14:53:33		57.9	57.9
57.9	14:53:36		57.9	57.9
58.5	14:53:39		58.5	58.5
60.5	14:53:42		60.5	60.5
61.2	14:53:45		61.2	61.2
59.2	14:53:48		59.2	59.2
56.4	14:53:51		56.4	56.4
56.1	14:53:54		56.1	56.1
57.3	14:53:57		57.3	57.3
56.9	14:54:00		56.9	56.9
58.9	14:54:03		58.9	58.9
59.5	14:54:06		59.5	59.5
56.7	14:54:09		56.7	56.7
57.5	14:54:12		57.5	57.5
56.6	14:54:15		56.6	56.6
60.2	14:54:18		60.2	60.2
59.6	14:54:21		59.6	59.6
60.4	14:54:24		60.4	60.4
60.6	14:54:27		60.6	60.6
58.6	14:54:30		58.6	58.6
59.7	14:54:33		59.7	59.7
56.4	14:54:36		56.4	56.4
55.1	14:54:39		55.1	55.1
57.1	14:54:42		57.1	57.1
61.8	14:54:45		61.8	61.8
60.2	14:54:48		60.2	60.2
57.2	14:54:51		57.2	57.2
55.2	14:54:54		55.2	55.2
57	14:54:57		57	57
58.2	14:55:00		58.2	58.2
58.9	14:55:03		58.9	58.9
61	14:55:06		61	61
60.1	14:55:09		60.1	60.1
59.7	14:55:12		59.7	59.7
58.2	14:55:15		58.2	58.2
58.2	14:55:18		58.2	58.2
57.3	14:55:21		57.3	57.3
60.1	14:55:24		60.1	60.1
61	14:55:27		61	61
63.1	14:55:30		63.1	63.1
63	14:55:33		63	63
62.3	14:55:36		62.3	62.3
63	14:55:39		63	63
61.7	14:55:42		61.7	61.7
59	14:55:45		59	59
59	14:55:48		59	59
58.9	14:55:51		58.9	58.9
62.4	14:55:54		62.4	62.4
61.2	14:55:57		61.2	61.2
61	14:56:00		61	61
58.1	14:56:03		58.1	58.1
58.2	14:56:06		58.2	58.2
61.1	14:56:09		61.1	61.1
60.8	14:56:12		60.8	60.8
61.4	14:56:15		61.4	61.4
60.1	14:56:18		60.1	60.1
61	14:56:21		61	61
60.2	14:56:24		60.2	60.2
60	14:56:27		60	60
59.5	14:56:30		59.5	59.5
60.1	14:56:33		60.1	60.1
57.6	14:56:36		57.6	57.6
57.2	14:56:39		57.2	57.2
57.6	14:56:42		57.6	57.6
57.1	14:56:45		57.1	57.1
58.4	14:56:48		58.4	58.4
60	14:56:51		60	60
59.4	14:56:54		59.4	59.4
61	14:56:57		61	61
59.4	14:57:00		59.4	59.4
62.5	14:57:03		62.5	62.5
61.4	14:57:06		61.4	61.4
60.7	14:57:09		60.7	60.7
60.3	14:57:12		60.3	60.3
58.1	14:57:15		58.1	58.1
57.2	14:57:18		57.2	57.2
55.7	14:57:21		55.7	55.7
57	14:57:24		57	57
58.1	14:57:27		58.1	58.1
57.7	14:57:30		57.7	57.7
57.6	14:57:33		57.6	57.6
57.1	14:57:36		57.1	57.1
55.9	14:57:39		55.9	55.9
57.7	14:57:42		57.7	57.7
58.4	14:57:45		58.4	58.4

Site C - On east property line of 2450 E Main St

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
63.1	15:07:00		63.1	63.1
64.5	15:07:03		64.5	64.5
62.7	15:07:06		62.7	62.7
64.4	15:07:09		64.4	64.4
68.5	15:07:12		68.5	68.5
61.8	15:07:15		61.8	61.8
61.9	15:07:18		61.9	61.9
64.2	15:07:21		64.2	64.2
64.9	15:07:24		64.9	64.9
69	15:07:27		69	69
67.3	15:07:30		67.3	67.3
66.6	15:07:33		66.6	66.6
66.4	15:07:36		66.4	66.4
65.7	15:07:39		65.7	65.7
64.7	15:07:42		64.7	64.7
62.7	15:07:45		62.7	62.7
62.3	15:07:48		62.3	62.3
70.2	15:07:51		70.2	70.2
62.9	15:07:54		62.9	62.9
61.3	15:07:57		61.3	61.3
62.4	15:08:00		62.4	62.4
64.7	15:08:03		64.7	64.7
65.9	15:08:06		65.9	65.9
68.1	15:08:09		68.1	68.1
64.8	15:08:12		64.8	64.8
66.7	15:08:15		66.7	66.7
62.7	15:08:18		62.7	62.7
61.6	15:08:21		61.6	61.6
60.1	15:08:24		60.1	60.1
61.4	15:08:27		61.4	61.4
61.4	15:08:30		61.4	61.4
62.6	15:08:33		62.6	62.6
59.9	15:08:36		59.9	59.9
61.2	15:08:39		61.2	61.2
64.1	15:08:42		64.1	64.1
64.1	15:08:45		64.1	64.1
64.1	15:08:48		64.1	64.1
63.7	15:08:51		63.7	63.7
63.7	15:08:54		63.7	63.7
63.5	15:08:57		63.5	63.5
66.5	15:09:00		66.5	66.5
63.5	15:09:03		63.5	63.5
65	15:09:06		65	65
67	15:09:09		67	67
70.7	15:09:12		70.7	70.7
62.2	15:09:15		62.2	62.2
64.5	15:09:18		64.5	64.5
63.3	15:09:21		63.3	63.3
63.8	15:09:24		63.8	63.8
65	15:09:27		65	65
62.8	15:09:30		62.8	62.8
61.7	15:09:33		61.7	61.7
62.2	15:09:36		62.2	62.2
64.3	15:09:39		64.3	64.3
64.7	15:09:42		64.7	64.7
62.2	15:09:45		62.2	62.2
62.7	15:09:48		62.7	62.7
61.8	15:09:51		61.8	61.8
57.3	15:09:54		57.3	57.3
60.3	15:09:57		60.3	60.3
67.5	15:10:00		67.5	67.5
63.5	15:10:03		63.5	63.5
63.7	15:10:06		63.7	63.7
67	15:10:09		67	67
65.2	15:10:12		65.2	65.2
64.5	15:10:15		64.5	64.5
61.3	15:10:18		61.3	61.3
61.4	15:10:21		61.4	61.4
60.1	15:10:24		60.1	60.1
61.8	15:10:27		61.8	61.8
63.7	15:10:30		63.7	63.7
61.9	15:10:33		61.9	61.9
58.9	15:10:36		58.9	58.9
57.5	15:10:39		57.5	57.5
55.6	15:10:42		55.6	55.6
66.2	15:10:45		66.2	66.2
66.4	15:10:48		66.4	66.4
63.7	15:10:51		63.7	63.7
62.3	15:10:54		62.3	62.3
64	15:10:57		64	64
62	15:11:00		62	62
62.3	15:11:03		62.3	62.3
65.9	15:11:06		65.9	65.9
63.8	15:11:09		63.8	63.8
62.7	15:11:12		62.7	62.7
61	15:11:15		61	61
60.9	15:11:18		60.9	60.9
61.7	15:11:21		61.7	61.7
60.3	15:11:24		60.3	60.3
64.4	15:11:27		64.4	64.4
59.5	15:11:30		59.5	59.5
58.9	15:11:33		58.9	58.9
56.5	15:11:36		56.5	56.5
55.4	15:11:39		55.4	55.4
55.5	15:11:42		55.5	55.5
56.4	15:11:45		56.4	56.4
55.8	15:11:48		55.8	55.8
59.2	15:11:51		59.2	59.2
61.6	15:11:54		61.6	61.6
59.8	15:11:57		59.8	59.8
61.9	15:12:00		61.9	61.9
62.1	15:12:03		62.1	62.1
64.2	15:12:06		64.2	64.2
61.5	15:12:09		61.5	61.5
60.2	15:12:12		60.2	60.2
61.8	15:12:15		61.8	61.8
59.4	15:12:18		59.4	59.4
59	15:12:21		59	59
55.8	15:12:24		55.8	55.8
55.3	15:12:27		55.3	55.3
54.5	15:12:30		54.5	54.5
52.2	15:12:33		52.2	52.2
56.1	15:12:36		56.1	56.1
57.1	15:12:39		57.1	57.1
56.9	15:12:42		56.9	56.9
60.1	15:12:45		60.1	60.1
60.5	15:12:48		60.5	60.5
63.4	15:12:51		63.4	63.4
61.8	15:12:54		61.8	61.8
62.3	15:12:57		62.3	62.3
59	15:13:00		59	59
62.3	15:13:03		62.3	62.3
64	15:13:06		64	64
64.4	15:13:09		64.4	64.4
60.8	15:13:12		60.8	60.8
59.9	15:13:15		59.9	59.9
63.2	15:13:18		63.2	63.2
60.2	15:13:21		60.2	60.2
64.3	15:13:24		64.3	64.3
59.2	15:13:27		59.2	59.2
55.7	15:13:30		55.7	55.7
57	15:13:33		57	57
62.2	15:13:36		62.2	62.2
64.6	15:13:39		64.6	64.6
62.3	15:13:42		62.3	62.3
62.9	15:13:45		62.9	62.9
61.6	15:13:48		61.6	61.6
65	15:13:51		65	65
59.5	15:13:54		59.5	59.5
57.8	15:13:57		57.8	57.8
60.4	15:14:00		60.4	60.4
65.1	15:14:03		65.1	65.1
63.5	15:14:06		63.5	63.5
64.8	15:14:09		64.8	64.8
61.4	15:14:12		61.4	61.4
66	15:14:15		66	66
63	15:14:18		63	63
60	15:14:21		60	60
61.8	15:14:24		61.8	61.8
59.5	15:14:27		59.5	59.5
59.6	15:14:30		59.6	59.6
60.9	15:14:33		60.9	60.9
60	15:14:36		60	60
60.7	15:14:39		60.7	60.7
57	15:14:42		57	57
56.6	15:14:45		56.6	56.6
55.1	15:14:48		55.1	55.1
59.3	15:14:51		59.3	59.3
58.2	15:14:54		58.2	58.2
61.4	15:14:57		61.4	61.4
57.3	15:15:00		57.3	57.3
56.3	15:15:03		56.3	56.3
58.9	15:15:06		58.9	58.9
57.1	15:15:09		57.1	57.1
58.1	15:15:12		58.1	58.1
59.9	15:15:15		59.9	59.9
59.7	15:15:18		59.7	59.7
58.8	15:15:21		58.8	58.8
57.9	15:15:24		57.9	57.9
55.8	15:15:27		55.8	55.8
56	15:15:30		56	56
54.7	15:15:33		54.7	54.7
52.8	15:15:36		52.8	52.8
58.2	15:15:39		58.2	58.2
56.9	15:15:42		56.9	56.9
60	15:15:45		60	60

Site D - SW Corner of Armory Rd & Barstow Rd

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
66.1	15:28:00		66.1	66.1
67	15:28:03		67	67
69.7	15:28:06		69.7	69.7
63.3	15:28:09		63.3	63.3
67.3	15:28:12		67.3	67.3
67.9	15:28:15		67.9	67.9
65.2	15:28:18		65.2	65.2
62	15:28:21		62	62
67.4	15:28:24		67.4	67.4
65	15:28:27		65	65
61	15:28:30		61	61
63.1	15:28:33		63.1	63.1
60.6	15:28:36		60.6	60.6
64.2	15:28:39		64.2	64.2
62.4	15:28:42		62.4	62.4
63.2	15:28:45		63.2	63.2
67.6	15:28:48		67.6	67.6
64.8	15:28:51		64.8	64.8
70	15:28:54		70	70
65.6	15:28:57		65.6	65.6
66.4	15:29:00		66.4	66.4
67.9	15:29:03		67.9	67.9
65.9	15:29:06		65.9	65.9
59.7	15:29:09		59.7	59.7
69.2	15:29:12		69.2	69.2
66.2	15:29:15		66.2	66.2
62.4	15:29:18		62.4	62.4
68.6	15:29:21		68.6	68.6
66.2	15:29:24		66.2	66.2
66.9	15:29:27		66.9	66.9
68.4	15:29:30		68.4	68.4
69.6	15:29:33		69.6	69.6
64.7	15:29:36		64.7	64.7
63	15:29:39		63	63
68	15:29:42		68	68
63.4	15:29:45		63.4	63.4
67	15:29:48		67	67
60.2	15:29:51		60.2	60.2
61.9	15:29:54		61.9	61.9
67.2	15:29:57		67.2	67.2
65.9	15:30:00		65.9	65.9
68.8	15:30:03		68.8	68.8
71.7	15:30:06		71.7	71.7
67	15:30:09		67	67
69.4	15:30:12		69.4	69.4
70.3	15:30:15		70.3	70.3
66.1	15:30:18		66.1	66.1
65.6	15:30:21		65.6	65.6
63.8	15:30:24		63.8	63.8
65.6	15:30:27		65.6	65.6
67	15:30:30		67	67
66.7	15:30:33		66.7	66.7
63.9	15:30:36		63.9	63.9
63.4	15:30:39		63.4	63.4
68.2	15:30:42		68.2	68.2
70.6	15:30:45		70.6	70.6
65.4	15:30:48		65.4	65.4
64.2	15:30:51		64.2	64.2
61.9	15:30:54		61.9	61.9
63.7	15:30:57		63.7	63.7
65.7	15:31:00		65.7	65.7
64.4	15:31:03		64.4	64.4
59.9	15:31:06		59.9	59.9
57.7	15:31:09		57.7	57.7
55.7	15:31:12		55.7	55.7
56.3	15:31:15		56.3	56.3
62.3	15:31:18		62.3	62.3
67.7	15:31:21		67.7	67.7
68.9	15:31:24		68.9	68.9
64.2	15:31:27		64.2	64.2
64.6	15:31:30		64.6	64.6
70.1	15:31:33		70.1	70.1
69.9	15:31:36		69.9	69.9
67.4	15:31:39		67.4	67.4
68.4	15:31:42		68.4	68.4
68.5	15:31:45		68.5	68.5
65.4	15:31:48		65.4	65.4
65.8	15:31:51		65.8	65.8
70.4	15:31:54		70.4	70.4
67.6	15:31:57		67.6	67.6
60.9	15:32:00		60.9	60.9
56.5	15:32:03		56.5	56.5
57.1	15:32:06		57.1	57.1
62.9	15:32:09		62.9	62.9
67.3	15:32:12		67.3	67.3
67.7	15:32:15		67.7	67.7
68.5	15:32:18		68.5	68.5
64.9	15:32:21		64.9	64.9
63	15:32:24		63	63
64.6	15:32:27		64.6	64.6
60.4	15:32:30		60.4	60.4
58.4	15:32:33		58.4	58.4
62.1	15:32:36		62.1	62.1
63	15:32:39		63	63
65.7	15:32:42		65.7	65.7
64.1	15:32:45		64.1	64.1
68.1	15:32:48		68.1	68.1
66.3	15:32:51		66.3	66.3
61.3	15:32:54		61.3	61.3
59.1	15:32:57		59.1	59.1
56.7	15:33:00		56.7	56.7
58.6	15:33:03		58.6	58.6
57.4	15:33:06		57.4	57.4
59.8	15:33:09		59.8	59.8
66.3	15:33:12		66.3	66.3
67.9	15:33:15		67.9	67.9
65	15:33:18		65	65
69.9	15:33:21		69.9	69.9
63.4	15:33:24		63.4	63.4
60.9	15:33:27		60.9	60.9
65.5	15:33:30		65.5	65.5
61.6	15:33:33		61.6	61.6
59	15:33:36		59	59
58.8	15:33:39		58.8	58.8
64.7	15:33:42		64.7	64.7
67.5	15:33:45		67.5	67.5
66.8	15:33:48		66.8	66.8
62.4	15:33:51		62.4	62.4
60	15:33:54		60	60
63.3	15:33:57		63.3	63.3
62	15:34:00		62	62
62	15:34:03		62	62
64.6	15:34:06		64.6	64.6
65.1	15:34:09		65.1	65.1
66.1	15:34:12		66.1	66.1
65.5	15:34:15		65.5	65.5
59.6	15:34:18		59.6	59.6
60.6	15:34:21		60.6	60.6
63.8	15:34:24		63.8	63.8
61.9	15:34:27		61.9	61.9
59.3	15:34:30		59.3	59.3
54.5	15:34:33		54.5	54.5
54.4	15:34:36		54.4	54.4
57.7	15:34:39		57.7	57.7
60.4	15:34:42		60.4	60.4
57.8	15:34:45		57.8	57.8
61.5	15:34:48		61.5	61.5
61.6	15:34:51		61.6	61.6
62.9	15:34:54		62.9	62.9
63	15:34:57		63	63
60.9	15:35:00		60.9	60.9
57.1	15:35:03		57.1	57.1
59.4	15:35:06		59.4	59.4
66	15:35:09		66	66
64.4	15:35:12		64.4	64.4
69.5	15:35:15		69.5	69.5
67	15:35:18		67	67
65.1	15:35:21		65.1	65.1
66.9	15:35:24		66.9	66.9
64.2	15:35:27		64.2	64.2
58	15:35:30		58	58
58.3	15:35:33		58.3	58.3
65	15:35:36		65	65
68.2	15:35:39		68.2	68.2
61.5	15:35:42		61.5	61.5
56.7	15:35:45		56.7	56.7
54.2	15:35:48		54.2	54.2
53.4	15:35:51		53.4	53.4
53	15:35:54		53	53
54.9	15:35:57		54.9	54.9
59.4	15:36:00		59.4	59.4
57.4	15:36:03		57.4	57.4
60.3	15:36:06		60.3	60.3
61.7	15:36:09		61.7	61.7
63.7	15:36:12		63.7	63.7
64.9	15:36:15		64.9	64.9
64.2	15:36:18		64.2	64.2
61.7	15:36:21		61.7	61.7
59.5	15:36:24		59.5	59.5
58.8	15:36:27		58.8	58.8
63.5	15:36:30		63.5	63.5
69.2	15:36:33		69.2	69.2
65	15:36:36		65	65
63.7	15:36:39		63.7	63.7
65.4	15:36:42		65.4	65.4
67.7	15:36:45		67.7	67.7

Site A - On Townsend St 120 feet from BNSF RR					Site B - NE corner of Park N Ride Lot on L Street					Site C - On east property line of 2450 E Main St					Site D - SW Corner of Armory Rd & Barstow Rd				
SPL	**Time**	**Leq (1 hour Avg.)**	**Ldn**	**CNEL**	**SPL**	**Time**	**Leq (1 hour Avg.)**	**Ldn**	**CNEL**	**SPL**	**Time**	**Leq (1 hour Avg.)**	**Ldn**	**CNEL**	**SPL**	**Time**	**Leq (1 hour Avg.)**	**Ldn**	**CNEL**
41	14:42:48		41	41	57.9	14:57:48		57.9	57.9	62.2	15:15:48		62.2	62.2	69.4	15:36:48		69.4	69.4
39.7	14:42:51		39.7	39.7	58.9	14:57:51		58.9	58.9	59	15:15:51		59	59	67.9	15:36:51		67.9	67.9
38.7	14:42:54		38.7	38.7	57.3	14:57:54		57.3	57.3	59.4	15:15:54		59.4	59.4	63.4	15:36:54		63.4	63.4
38.7	14:42:57		38.7	38.7	57.6	14:57:57		57.6	57.6	58	15:15:57		58	58	66.3	15:36:57		66.3	66.3
37.9	14:43:00		37.9	37.9	57.4	14:58:00		57.4	57.4	54.1	15:16:00		54.1	54.1	62.7	15:37:00		62.7	62.7
37.4	14:43:03		37.4	37.4	58	14:58:03		58	58	55	15:16:03		55	55	64	15:37:03		64	64
36.9	14:43:06		36.9	36.9	57.6	14:58:06		57.6	57.6	55.8	15:16:06		55.8	55.8	63.2	15:37:06		63.2	63.2
38	14:43:09		38	38	61.2	14:58:09		61.2	61.2	55.8	15:16:09		55.8	55.8	59.4	15:37:09		59.4	59.4
38.1	14:43:12		38.1	38.1	61.1	14:58:12		61.1	61.1	62.5	15:16:12		62.5	62.5	59.6	15:37:12		59.6	59.6
38.4	14:43:15		38.4	38.4	62.8	14:58:15		62.8	62.8	62.7	15:16:15		62.7	62.7	58.7	15:37:15		58.7	58.7
43.5	14:43:18		43.5	43.5	60.9	14:58:18		60.9	60.9	63.1	15:16:18		63.1	63.1	55.3	15:37:18		55.3	55.3
43	14:43:21		43	43	60.6	14:58:21		60.6	60.6	59.2	15:16:21		59.2	59.2	55	15:37:21		55	55
46.4	14:43:24		46.4	46.4	63.5	14:58:24		63.5	63.5	56.7	15:16:24		56.7	56.7	56.6	15:37:24		56.6	56.6
40.9	14:43:27		40.9	40.9	61.8	14:58:27		61.8	61.8	59.9	15:16:27		59.9	59.9	59.9	15:37:27		59.9	59.9
41.8	14:43:30		41.8	41.8	62.6	14:58:30		62.6	62.6	58.1	15:16:30		58.1	58.1	60.7	15:37:30		60.7	60.7
43.7	14:43:33		43.7	43.7	61.1	14:58:33		61.1	61.1	57	15:16:33		57	57	61.3	15:37:33		61.3	61.3
45.5	14:43:36		45.5	45.5	59.2	14:58:36		59.2	59.2	54.2	15:16:36		54.2	54.2	59.8	15:37:36		59.8	59.8
44.4	14:43:39		44.4	44.4	60	14:58:39		60	60	55.5	15:16:39		55.5	55.5	59	15:37:39		59	59
42.5	14:43:42		42.5	42.5	61.2	14:58:42		61.2	61.2	51.3	15:16:42		51.3	51.3	67.6	15:37:42		67.6	67.6
40.9	14:43:45		40.9	40.9	59.6	14:58:45		59.6	59.6	52.8	15:16:45		52.8	52.8	66.9	15:37:45		66.9	66.9
43.5	14:43:48		43.5	43.5	58.5	14:58:48		58.5	58.5	62.1	15:16:48		62.1	62.1	62.2	15:37:48		62.2	62.2
40.4	14:43:51		40.4	40.4	61.1	14:58:51		61.1	61.1	61.4	15:16:51		61.4	61.4	62	15:37:51		62	62
40.8	14:43:54		40.8	40.8	59.3	14:58:54		59.3	59.3	61.7	15:16:54		61.7	61.7	64.8	15:37:54		64.8	64.8
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42	14:44:00		42	42	58.4	14:59:00		58.4	58.4	58.4	15:17:00		58.4	58.4	58.9	15:38:00		58.9	58.9
41.2	14:44:03		41.2	41.2	59.6	14:59:03		59.6	59.6	59.4	15:17:03		59.4	59.4	54.5	15:38:03		54.5	54.5
45.3	14:44:06		45.3	45.3	59.2	14:59:06		59.2	59.2	61.4	15:17:06		61.4	61.4	53.9	15:38:06		53.9	53.9
42	14:44:09		42	42	61.5	14:59:09		61.5	61.5	57.9	15:17:09		57.9	57.9	59.2	15:38:09		59.2	59.2
44.8	14:44:12		44.8	44.8	61.7	14:59:12		61.7	61.7	56.2	15:17:12		56.2	56.2	65.4	15:38:12		65.4	65.4
43.9	14:44:15		43.9	43.9	63	14:59:15		63	63	61.5	15:17:15		61.5	61.5	61.5	15:38:15		61.5	61.5
42.4	14:44:18		42.4	42.4	61.8	14:59:18		61.8	61.8	59.1	15:17:18		59.1	59.1	55.6	15:38:18		55.6	55.6
44.7	14:44:21		44.7	44.7	61.2	14:59:21		61.2	61.2	62.7	15:17:21		62.7	62.7	54.3	15:38:21		54.3	54.3
42.1	14:44:24		42.1	42.1	59.5	14:59:24		59.5	59.5	64.6	15:17:24		64.6	64.6	58.2	15:38:24		58.2	58.2
48.3	14:44:27		48.3	48.3	59.8	14:59:27		59.8	59.8	65	15:17:27		65	65	56.7	15:38:27		56.7	56.7
56.5	14:44:30		56.5	56.5	61.5	14:59:30		61.5	61.5	61.5	15:17:30		61.5	61.5	57.2	15:38:30		57.2	57.2
55.4	14:44:33		55.4	55.4	59.3	14:59:33		59.3	59.3	62.2	15:17:33		62.2	62.2	56.6	15:38:33		56.6	56.6
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47.4	14:44:42		47.4	47.4	55.2	14:59:42		55.2	55.2	58.8	15:17:42		58.8	58.8	60.3	15:38:42		60.3	60.3
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44.6	14:44:48		44.6	44.6	54.3	14:59:48		54.3	54.3	48.9	15:17:48		48.9	48.9	60.6	15:38:48		60.6	60.6
47	14:44:51		47	47	55.1	14:59:51		55.1	55.1	54.4	15:17:51		54.4	54.4	60.9	15:38:51		60.9	60.9
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43.3	14:44:57		43.3	43.3	56	14:59:57		56	56	52.5	15:17:57		52.5	52.5	63	15:38:57		63	63
44.7	14:45:00		44.7	44.7	56.6	15:00:00		56.6	56.6	48.2	15:18:00		48.2	48.2	66.5	15:39:00		66.5	66.5
44.1	14:45:03		44.1	44.1	57	15:00:03		57	57	45.7	15:18:03		45.7	45.7	66.7	15:39:03		66.7	66.7
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42.4	14:45:09		42.4	42.4	60.4	15:00:09		60.4	60.4	50.5	15:18:09		50.5	50.5	69	15:39:09		69	69
41.4	14:45:12		41.4	41.4	64.9	15:00:12		64.9	64.9	54.1	15:18:12		54.1	54.1	66.9	15:39:12		66.9	66.9
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42.1	14:45:18		42.1	42.1	62.5	15:00:18		62.5	62.5	51	15:18:18		51	51	66.5	15:39:18		66.5	66.5
40.9	14:45:21		40.9	40.9	58.5	15:00:21		58.5	58.5	53.4	15:18:21		53.4	53.4	65.6	15:39:21		65.6	65.6
39.6	14:45:24		39.6	39.6	55.3	15:00:24		55.3	55.3	58	15:18:24		58	58	65.8	15:39:24		65.8	65.8
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42	14:45:36		42	42	60.1	15:00:36		60.1	60.1	55.5	15:18:36		55.5	55.5	58.8	15:39:36		58.8	58.8
43.1	14:45:39		43.1	43.1	60.3	15:00:39		60.3	60.3	54	15:18:39		54	54	56.2	15:39:39		56.2	56.2
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44.4	14:45:45		44.4	44.4	61.1	15:00:45		61.1	61.1	57.3	15:18:45		57.3	57.3	53.3	15:39:45		53.3	53.3
41.3	14:45:48		41.3	41.3	60.6	15:00:48		60.6	60.6	57.9	15:18:48		57.9	57.9	54.7	15:39:48		54.7	54.7
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37.5	14:46:00		37.5	37.5	63.1	15:01:00		63.1	63.1	65.1	15:19:00		65.1	65.1	63.8	15:40:00		63.8	63.8
43.7	14:46:03		43.7	43.7	63.4	15:01:03		63.4	63.4	64.5	15:19:03		64.5	64.5	57.5	15:40:03		57.5	57.5
39.3	14:46:06		39.3	39.3	63.3	15:01:06		63.3	63.3	65.4	15:19:06		65.4	65.4	56.4	15:40:06		56.4	56.4
40.4	14:46:09		40.4	40.4	62.8	15:01:09		62.8	62.8	67.5	15:19:09		67.5	67.5	57.7	15:40:09		57.7	57.7
38.7	14:46:12		38.7	38.7	59.5	15:01:12		59.5	59.5	67.6	15:19:12		67.6	67.6	59.5	15:40:12		59.5	59.5
39	14:46:15		39	39	58.1	15:01:15		58.1	58.1	66.5	15:19:15		66.5	66.5	62.2	15:40:15		62.2	62.2
38.8	14:46:18		38.8	38.8	58.9	15:01:18		58.9	58.9	63.4	15:19:18		63.4	63.4	63.5	15:40:18		63.5	63.5
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42.7	14:46:24		42.7	42.7	58	15:01:24		58	58	60.6	15:19:24		60.6	60.6	65.6	15:40:24		65.6	65.6
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42	14:46:33		42	42	59.2	15:01:33		59.2	59.2	62.7	15:19:33		62.7	62.7	67.3	15:40:33		67.3	67.3
43.5	14:46:36		43.5	43.5	62.8	15:01:36		62.8	62.8	63.3	15:19:36		63.3	63.3	77.8	15:40:36		77.8	77.8
41.4	14:46:39		41.4	41.4	58.3	15:01:39		58.3	58.3	59	15:19:39		59	59	68.9	15:40:39		68.9	68.9
41	14:46:42		41	41	56.8	15:01:42		56.8	56.8	59.1	15:19:42		59.1	59.1	68.7	15:40:42		68.7	68.7
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43	14:46:54		43	43	57.9	15:01:54		57.9	57.9	57.3	15:19:54		57.3	57.3	65.4	15:40:54		65.4	65.4
42	14:46:57		42	42	57.6	15:01:57		57.6	57.6	58.7	15:19:57		58.7	58.7	64.2	15:40:57		64.2	64.2
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41.7	14:47:09		41.7	41.7	56	15:02:09		56	56	62	15:20:09		62	62	61.2	15:41:09		61.2	61.2
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39.5	14:47:18		39.5	39.5	57	15:02:18		57	57	61.1	15:20:18		61.1	61.1	70.2	15:41:18		70.2	70.2
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47.5	14:47:24		47.5	47.5	61.9	15:02:24		61.9	61.9	58.6	15:20:24		58.6	58.6	68.6	15:41:24		68.6	68.6
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39.8	14:47:30		39.8	39.8	62.3	15:02:30		62.3	62.3	57.8	15:20:30		57.8	57.8	61.2	15:41:30		61.2	61.2
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39.9	14:49:00		39.9	39.9	53.5	15:04:00		53.5	53.5	63.3	15:22:00		63.3	63.3	67.1	15:43:00		67.1	67.1
42.1	14:49:03		42.1	42.1	55.2	15:04:03		55.2	55.2	61.5	15:22:03		61.5	61.5	63.2	15:43:03		63.2	63.2
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42.8	14:49:12		42.8	42.8	59.5	15:04:12		59.5	59.5	57.3	15:22:12		57.3	57.3	63.5	15:43:12		63.5	63.5
41.7	14:49:15		41.7	41.7	58.5	15:04:15		58.5	58.5	55.3	15:22:15		55.3	55.3	65.1	15:43:15		65.1	65.1
40.6	14:49:18		40.6	40.6	59	15:04:18		59	59	54	15:22:18		54	54	64.1	15:43:18		64.1	64.1
42.5	14:49:21		42.5	42.5	58.5	15:04:21		58.5	58.5	60.9	15:22:21		60.9	60.9	64.4	15:43:21		64.4	64.4
42.5	14:49:24		42.5	42.5	56.9	15:04:24		56.9	56.9	55.6	15:22:24		55.6	55.6	61.4	15:43:24		61.4	61.4
42	14:49:27		42	42	59.2	15:04:27		59.2	59.2	56.3	15:22:27		56.3	56.3	57.9	15:43:27		57.9	57.9
42.7	14:49:30		42.7	42.7	57.1	15:04:30		57.1	57.1	63.8	15:22:30		63.8	63.8	58.9	15:43:30		58.9	58.9
44	14:49:33		44	44	57.9	15:04:33		57.9	57.9	65.9	15:22:33		65.9	65.9	58.7	15:43:33		58.7	58.7
44.1	14:49:36		44.1	44.1	56.1	15:04:36		56.1	56.1	64.8	15:22:36		64.8	64.8	59.8	15:43:36		59.8	59.8
48.8	14:49:39		48.8	48.8	55.8	15:04:39		55.8	55.8	65.5	15:22:39		65.5	65.5	66.6	15:43:39		66.6	66.6
50.1	14:49:42		50.1	50.1	55.7	15:04:42		55.7	55.7	64.8	15:22:42		64.8	64.8	63.8	15:43:42		63.8	63.8
45.7	14:49:45		45.7	45.7	55.8	15:04:45		55.8	55.8	65.6	15:22:45		65.6	65.6	61.6	15:43:45		61.6	61.6
43.2	14:49:48		43.2	43.2	56.2	15:04:48		56.2	56.2	65.2	15:22:48		65.2	65.2	62.8	15:43:48		62.8	62.8
44.9	14:49:51		44.9	44.9	58	15:04:51		58	58	66.4	15:22:51		66.4	66.4	60.6	15:43:51		60.6	60.6
46.5	14:49:54		46.5	46.5	55.4	15:04:54		55.4	55.4	65.2	15:22:54		65.2	65.2	61.1	15:43:54		61.1	61.1
47.1	14:49:57		47.1	47.1	56.2	15:04:57		56.2	56.2	61.9	15:22:57		61.9	61.9	67.1	15:43:57		67.1	67.1
46.7	14:50:00		46.7	46.7	55.6	15:05:00		55.6	55.6	62.7	15:23:00		62.7	62.7	71.4	15:44:00		71.4	71.4
45	14:50:03		45	45	55.4	15:05:03		55.4	55.4	60.1	15:23:03		60.1	60.1	67.5	15:44:03		67.5	67.5
45	14:50:06		45	45	56.4	15:05:06		56.4	56.4	59.4	15:23:06		59.4	59.4	68.3	15:44:06		68.3	68.3
41.7	14:50:09		41.7	41.7	59	15:05:09		59	59	61.1	15:23:09		61.1	61.1	67.3	15:44:09		67.3	67.3
41.3	14:50:12		41.3	41.3	61.8	15:05:12		61.8	61.8	61.7	15:23:12		61.7	61.7	63.7	15:44:12		63.7	63.7
43.4	14:50:15		43.4	43.4	63	15:05:15		63	63	61.4	15:23:15		61.4	61.4	68.3	15:44:15		68.3	68.3
43	14:50:18		43	43	61.6	15:05:18		61.6	61.6	63.5	15:23:18		63.5	63.5	66.8	15:44:18		66.8	66.8
43.5	14:50:21		43.5	43.5	59.6	15:05:21		59.6	59.6	60.2	15:23:21		60.2	60.2	69.3	15:44:21		69.3	69.3
46.6	14:50:24		46.6	46.6	59.7	15:05:24		59.7	59.7	56.7	15:23:24		56.7	56.7	68.8	15:44:24		68.8	68.8
46.3	14:50:27		46.3	46.3	58.7	15:05:27		58.7	58.7	53.7	15:23:27		53.7	53.7	60.2	15:44:27		60.2	60.2
47.1	14:50:30		47.1	47.1	58	15:05:30		58	58	54.2	15:23:30		54.2	54.2	62.8	15:44:30		62.8	62.8
46.5	14:50:33		46.5	46.5	58.9	15:05:33		58.9	58.9	53.2	15:23:33		53.2	53.2	69.2	15:44:33		69.2	69.2
45	14:50:36		45	45	58.4	15:05:36		58.4	58.4	49.1	15:23:36		49.1	49.1	64.5	15:44:36		64.5	64.5
43.9	14:50:39		43.9	43.9	60.3	15:05:39		60.3	60.3	48	15:23:39		48	48	63.1	15:44:39		63.1	63.1
45.8	14:50:42		45.8	45.8	55.5	15:05:42		55.5	55.5	53.3	15:23:42		53.3	53.3	66.5	15:44:42		66.5	66.5
40.9	14:50:45		40.9	40.9	55.1	15:05:45		55.1	55.1	59.1	15:23:45		59.1	59.1	64.3	15:44:45		64.3	64.3
41.1	14:50:48		41.1	41.1	54.8	15:05:48		54.8	54.8	62.1	15:23:48		62.1	62.1	59.6	15:44:48		59.6	59.6
40.1	14:50:51		40.1	40.1	54.4	15:05:51		54.4	54.4	63.3	15:23:51		63.3	63.3	58.3	15:44:51		58.3	58.3
40.6	14:50:54		40.6	40.6	57.5	15:05:54		57.5	57.5	64	15:23:54		64	64	60	15:44:54		60	60
40.1	14:50:57		40.1	40.1	49.8	15:05:57		49.8	49.8	63.9	15:23:57		63.9	63.9	61.6	15:44:57		61.6	61.6
39.7	14:51:00		39.7	39.7	50.2	15:06:00		50.2	50.2	61.9	15:24:00		61.9	61.9	58.9	15:45:00		58.9	58.9
39	14:51:03		39	39	53.6	15:06:03		53.6	53.6	60.1	15:24:03		60.1	60.1	60.6	15:45:03		60.6	60.6
40	14:51:06		40	40	54	15:06:06		54	54	57.3	15:24:06		57.3	57.3	66.3	15:45:06		66.3	66.3
43.4	14:51:09		43.4	43.4	56.2	15:06:09		56.2	56.2	55.3	15:24:09		55.3	55.3	68.4	15:45:09		68.4	68.4
41.3	14:51:12		41.3	41.3	57.3	15:06:12		57.3	57.3	56.7	15:24:12		56.7	56.7	66.4	15:45:12		66.4	66.4
41	14:51:15		41	41	58.2	15:06:15		58.2	58.2	59.2	15:24:15		59.2	59.2	65.4	15:45:15		65.4	65.4
40.2	14:51:18		40.2	40.2	58.2	15:06:18		58.2	58.2	58.5	15:24:18		58.5	58.5	65.9	15:45:18		65.9	65.9
39.4	14:51:21		39.4	39.4	59.7	15:06:21		59.7	59.7	58.6	15:24:21		58.6	58.6	62.7	15:45:21		62.7	62.7
41.4	14:51:24		41.4	41.4	57.1	15:06:24		57.1	57.1	59.8	15:24:24		59.8	59.8	64	15:45:24		64	64
45.5	14:51:27		45.5	45.5	60.2	15:06:27		60.2	60.2	55.6	15:24:27		55.6	55.6	66.2	15:45:27		66.2	66.2
46	14:51:30		46	46	60.6	15:06:30		60.6	60.6	51.8	15:24:30		51.8	51.8	65	15:45:30		65	65
43.2	14:51:33		43.2	43.2	59.4	15:06:33		59.4	59.4	60.8	15:24:33		60.8	60.8	58.7	15:45:33		58.7	58.7
42.9	14:51:36		42.9	42.9	61.9	15:06:36		61.9	61.9	61.6	15:24:36		61.6	61.6	58.8	15:45:36		58.8	58.8
41.5	14:51:39		41.5	41.5	61.3	15:06:39		61.3	61.3	59.8	15:24:39		59.8	59.8	61	15:45:39		61	61
41.2	14:51:42		41.2	41.2	57.9	15:06:42		57.9	57.9	61.3	15:24:42		61.3	61.3	65.1	15:45:42		65.1	65.1
41.2	14:51:45		41.2	41.2	57.8	15:06:45		57.8	57.8	63.4	15:24:45		63.4	63.4	68.1	15:45:45		68.1	68.1
41.3	14:51:48		41.3	41.3	56.5	15:06:48		56.5	56.5	62.8	15:24:48		62.8	62.8	61.7	15:45:48		61.7	61.7
41.6	14:51:51		41.6	41.6	54.4	15:06:51		54.4	54.4	62.8	15:24:51		62.8	62.8	57.6	15:45:51		57.6	57.6
41.2	14:51:54		41.2	41.2	55.2	15:06:54		55.2	55.2	62.4	15:24:54		62.4	62.4	54.7	15:45:54		54.7	54.7
44.6	14:51:57		44.6	44.6	53.8	15:06:57		53.8	53.8	58.8	15:24:57		58.8	58.8	54.1	15:45:57		54.1	54.1
42.6	14:52:00		42.6	42.6	57.4	15:07:00		57.4	57.4	56.5	15:25:00		56.5	56.5	52.7	15:46:00		52.7	52.7
43.7	14:52:03		43.7	43.7	54.2	15:07:03		54.2	54.2	58.5	15:25:03		58.5	58.5	55.9	15:46:03		55.9	55.9
45.8	14:52:06		45.8	45.8	57.6	15:07:06		57.6	57.6	60.4	15:25:06		60.4	60.4	57.6	15:46:06		57.6	57.6

Site A - On Townsend St 120 feet from BNSF RR					Site B - NE corner of Park N Ride Lot on L Street					Site C - On east property line of 2450 E Main St					Site D - SW Corner of Armory Rd & Barstow Rd				
SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL	SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL	SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL	SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
43.8	14:52:09		43.8	43.8	59.5	15:07:09		59.5	59.5	62.3	15:25:09		62.3	62.3	61.9	15:46:09		61.9	61.9
44.6	14:52:12		44.6	44.6	59.4	15:07:12		59.4	59.4	65.6	15:25:12		65.6	65.6	59.9	15:46:12		59.9	59.9
50.9	14:52:15		50.9	50.9	64.5	15:07:15		64.5	64.5	64.1	15:25:15		64.1	64.1	63.8	15:46:15		63.8	63.8
47.8	14:52:18		47.8	47.8	66.6	15:07:18		66.6	66.6	59.8	15:25:18		59.8	59.8	64.2	15:46:18		64.2	64.2
50.3	14:52:21		50.3	50.3	63.7	15:07:21		63.7	63.7	55.1	15:25:21		55.1	55.1	65.2	15:46:21		65.2	65.2
55.8	14:52:24		55.8	55.8	62.6	15:07:24		62.6	62.6	50.3	15:25:24		50.3	50.3	64.5	15:46:24		64.5	64.5
55.2	14:52:27		55.2	55.2	61	15:07:27		61	61	53.7	15:25:27		53.7	53.7	67.6	15:46:27		67.6	67.6
55.2	14:52:30		55.2	55.2	61.6	15:07:30		61.6	61.6	56.9	15:25:30		56.9	56.9	67.8	15:46:30		67.8	67.8
55	14:52:33		55	55	57.4	15:07:33		57.4	57.4	59.7	15:25:33		59.7	59.7	67.7	15:46:33		67.7	67.7
53.1	14:52:36		53.1	53.1	56.9	15:07:36		56.9	56.9	62.2	15:25:36		62.2	62.2	64.9	15:46:36		64.9	64.9
55	14:52:39		55	55	54.3	15:07:39		54.3	54.3	62	15:25:39		62	62	65.1	15:46:39		65.1	65.1
53.3	14:52:42		53.3	53.3	55.5	15:07:42		55.5	55.5	58	15:25:42		58	58	63.7	15:46:42		63.7	63.7
55.5	14:52:45		55.5	55.5	56.8	15:07:45		56.8	56.8	55.9	15:25:45		55.9	55.9	63	15:46:45		63	63
51.2	14:52:48		51.2	51.2	56	15:07:48		56	56	60.7	15:25:48		60.7	60.7	64.3	15:46:48		64.3	64.3
51.1	14:52:51		51.1	51.1	57.7	15:07:51		57.7	57.7	57.6	15:25:51		57.6	57.6	65.7	15:46:51		65.7	65.7
51.7	14:52:54		51.7	51.7	58.4	15:07:54		58.4	58.4	57.6	15:25:54		57.6	57.6	66.6	15:46:54		66.6	66.6
51.3	14:52:57		51.3	51.3	57.7	15:07:57		57.7	57.7	58.4	15:25:57		58.4	58.4	68.6	15:46:57		68.6	68.6
49.3	14:53:00		49.3	49.3	55.6	15:08:00		55.6	55.6	56.5	15:26:00		56.5	56.5	65.2	15:47:00		65.2	65.2
49.7	14:53:03		49.7	49.7	53.9	15:08:03		53.9	53.9	55.1	15:26:03		55.1	55.1	60.5	15:47:03		60.5	60.5
47.8	14:53:06		47.8	47.8	52.5	15:08:06		52.5	52.5	59.3	15:26:06		59.3	59.3	60.2	15:47:06		60.2	60.2
47.2	14:53:09		47.2	47.2	51.4	15:08:09		51.4	51.4	56.3	15:26:09		56.3	56.3	58.1	15:47:09		58.1	58.1
49	14:53:12		49	49	56	15:08:12		56	56	63.8	15:26:12		63.8	63.8	57.4	15:47:12		57.4	57.4
50.7	14:53:15		50.7	50.7	54.6	15:08:15		54.6	54.6	59	15:26:15		59	59	58.3	15:47:15		58.3	58.3
50.5	14:53:18		50.5	50.5	56	15:08:18		56	56	59.2	15:26:18		59.2	59.2	61	15:47:18		61	61
46.8	14:53:21		46.8	46.8	53.6	15:08:21		53.6	53.6	62.6	15:26:21		62.6	62.6	59.2	15:47:21		59.2	59.2
46.9	14:53:24		46.9	46.9	52.3	15:08:24		52.3	52.3	57.3	15:26:24		57.3	57.3	60.7	15:47:24		60.7	60.7
47.9	14:53:27		47.9	47.9	55.2	15:08:27		55.2	55.2	54.8	15:26:27		54.8	54.8	63.3	15:47:27		63.3	63.3
48.5	14:53:30		48.5	48.5	56.8	15:08:30		56.8	56.8	53.2	15:26:30		53.2	53.2	64.6	15:47:30		64.6	64.6
46.6	14:53:33		46.6	46.6	58.2	15:08:33		58.2	58.2	57.5	15:26:33		57.5	57.5	69.5	15:47:33		69.5	69.5
45.8	14:53:36		45.8	45.8	56.9	15:08:36		56.9	56.9	55.7	15:26:36		55.7	55.7	64.2	15:47:36		64.2	64.2
45.8	14:53:39		45.8	45.8	59.7	15:08:39		59.7	59.7	57.6	15:26:39		57.6	57.6	62.9	15:47:39		62.9	62.9
46.4	14:53:42		46.4	46.4	61.8	15:08:42		61.8	61.8	63.8	15:26:42		63.8	63.8	62.9	15:47:42		62.9	62.9
44.7	14:53:45		44.7	44.7	59.8	15:08:45		59.8	59.8	62.6	15:26:45		62.6	62.6	65	15:47:45		65	65
44.4	14:53:48		44.4	44.4	59.9	15:08:48		59.9	59.9	60.4	15:26:48		60.4	60.4	68.3	15:47:48		68.3	68.3
45.2	14:53:51		45.2	45.2	59.2	15:08:51		59.2	59.2	57.1	15:26:51		57.1	57.1	65.5	15:47:51		65.5	65.5
44.5	14:53:54		44.5	44.5	63.4	15:08:54		63.4	63.4	52.1	15:26:54		52.1	52.1	62.6	15:47:54		62.6	62.6
44.8	14:53:57		44.8	44.8	60.9	15:08:57		60.9	60.9	46.1	15:26:57		46.1	46.1	59.2	15:47:57		59.2	59.2
43.7	14:54:00		43.7	43.7	61.2	15:09:00		61.2	61.2	43.7	15:27:00		43.7	43.7	63.2	15:48:00		63.2	63.2
46.4	14:54:03		46.4	46.4	57.8	15:09:03		57.8	57.8	44.7	15:27:03		44.7	44.7	61.1	15:48:03		61.1	61.1
43.7	14:54:06		43.7	43.7	60.9	15:09:06		60.9	60.9	45.4	15:27:06		45.4	45.4	58.3	15:48:06		58.3	58.3
43.5	14:54:09		43.5	43.5	59.9	15:09:09		59.9	59.9	50.8	15:27:09		50.8	50.8	63.7	15:48:09		63.7	63.7
44	14:54:12		44	44	60.3	15:09:12		60.3	60.3	59.2	15:27:12		59.2	59.2	67.6	15:48:12		67.6	67.6
43.5	14:54:15		43.5	43.5	58.6	15:09:15		58.6	58.6	62.8	15:27:15		62.8	62.8	64.3	15:48:15		64.3	64.3
43.3	14:54:18		43.3	43.3	59.5	15:09:18		59.5	59.5	62.9	15:27:18		62.9	62.9	61.3	15:48:18		61.3	61.3
45.1	14:54:21		45.1	45.1	58.1	15:09:21		58.1	58.1	63.6	15:27:21		63.6	63.6	59.1	15:48:21		59.1	59.1
41.1	14:54:24		41.1	41.1	58.4	15:09:24		58.4	58.4	64.6	15:27:24		64.6	64.6	62.6	15:48:24		62.6	62.6
41.5	14:54:27		41.5	41.5	56.9	15:09:27		56.9	56.9	62.2	15:27:27		62.2	62.2	62.6	15:48:27		62.6	62.6
42	14:54:30		42	42	60.2	15:09:30		60.2	60.2	58.7	15:27:30		58.7	58.7	58.9	15:48:30		58.9	58.9
42.4	14:54:33		42.4	42.4	59.9	15:09:33		59.9	59.9	55.5	15:27:33		55.5	55.5	57.9	15:48:33		57.9	57.9
42.3	14:54:36		42.3	42.3	57.9	15:09:36		57.9	57.9	56.9	15:27:36		56.9	56.9	60.5	15:48:36		60.5	60.5
40.9	14:54:39		40.9	40.9	56.9	15:09:39		56.9	56.9	61.7	15:27:39		61.7	61.7	64	15:48:39		64	64
42.3	14:54:42		42.3	42.3	55.6	15:09:42		55.6	55.6	62.5	15:27:42		62.5	62.5	60	15:48:42		60	60
44.7	14:54:45		44.7	44.7	58.8	15:09:45		58.8	58.8	61.5	15:27:45		61.5	61.5	62.8	15:48:45		62.8	62.8
44.6	14:54:48		44.6	44.6	60.9	15:09:48		60.9	60.9	58.8	15:27:48		58.8	58.8	64.3	15:48:48		64.3	64.3
43	14:54:51		43	43	59.4	15:09:51		59.4	59.4	56.4	15:27:51		56.4	56.4	65.5	15:48:51		65.5	65.5
43.1	14:54:54		43.1	43.1	61.7	15:09:54		61.7	61.7	54.4	15:27:54		54.4	54.4	64.4	15:48:54		64.4	64.4
43.5	14:54:57		43.5	43.5	61.3	15:09:57		61.3	61.3	51.8	15:27:57		51.8	51.8	67	15:48:57		67	67
41.9	14:55:00		41.9	41.9	60	15:10:00		60	60	50.7	15:28:00		50.7	50.7	63.7	15:49:00		63.7	63.7
42.5	14:55:03		42.5	42.5	61.3	15:10:03		61.3	61.3	61	15:28:03		61	61	68.5	15:49:03		68.5	68.5
44	14:55:06		44	44	62.9	15:10:06		62.9	62.9	66.3	15:28:06		66.3	66.3	64.9	15:49:06		64.9	64.9
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48.2	14:55:30		48.2	48.2	64.5	15:10:30		64.5	64.5	65.5	15:28:30		65.5	65.5	74.6	15:49:30		74.6	74.6
50.1	14:55:33		50.1	50.1	63.4	15:10:33		63.4	63.4	63.3	15:28:33		63.3	63.3	61.7	15:49:33		61.7	61.7
49.3	14:55:36		49.3	49.3	63.8	15:10:36		63.8	63.8	59.8	15:28:36		59.8	59.8	60	15:49:36		60	60
50.2	14:55:39		50.2	50.2	64.2	15:10:39		64.2	64.2	56.8	15:28:39		56.8	56.8	65	15:49:39		65	65
51.8	14:55:42		51.8	51.8	62.1	15:10:42		62.1	62.1	53.5	15:28:42		53.5	53.5	61.2	15:49:42		61.2	61.2
50.9	14:55:45		50.9	50.9	61.4	15:10:45		61.4	61.4	56.2	15:28:45		56.2	56.2	59.2	15:49:45		59.2	59.2
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47.5	14:55:51		47.5	47.5	59.8	15:10:51		59.8	59.8	65.1	15:28:51		65.1	65.1	62.9	15:49:51		62.9	62.9
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47	14:55:57		47	47	57.9	15:10:57		57.9	57.9	62	15:28:57		62	62	64.9	15:49:57		64.9	64.9
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45	14:56:03		45	45	66.1	15:11:03		66.1	66.1	62.6	15:29:03		62.6	62.6	60.4	15:50:03		60.4	60.4
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46.8	14:56:09		46.8	46.8	62.8	15:11:09		62.8	62.8	64.7	15:29:09		64.7	64.7	64.9	15:50:09		64.9	64.9
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48.5	14:56:15		48.5	48.5	60.5	15:11:15		60.5	60.5	60.6	15:29:15		60.6	60.6	67.8	15:50:15		67.8	67.8
58.1	14:56:18		58.1	58.1	58.8	15:11:18		58.8	58.8	57.1	15:29:18		57.1	57.1	68.2	15:50:18		68.2	68.2
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55.8	14:56:30		55.8	55.8	63.7	15:11:30		63.7	63.7	58.3	15:29:30		58.3	58.3	62.6	15:50:30		62.6	62.6
52.9	14:56:33		52.9	52.9	63.6	15:11:33		63.6	63.6	57.3	15:29:33		57.3	57.3	61.4	15:50:33		61.4	61.4
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47.3	14:56:39		47.3	47.3	61.3	15:11:39		61.3	61.3	53.5	15:29:39		53.5	53.5	61.2	15:50:39		61.2	61.2
50.7	14:56:42		50.7	50.7	59.7	15:11:42		59.7	59.7	52.7	15:29:42		52.7	52.7	68.6	15:50:42		68.6	68.6
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45.4	14:56:48		45.4	45.4	55.5	15:11:48		55.5	55.5	64.6	15:29:48		64.6	64.6	65.4	15:50:48		65.4	65.4
45.3	14:56:51		45.3	45.3	55.6	15:11:51		55.6	55.6	64.8	15:29:51		64.8	64.8	59.6	15:50:51		59.6	59.6
45.7	14:56:54		45.7	45.7	54.5	15:11:54		54.5	54.5	55.1	15:29:54		55.1	55.1	59.5	15:50:54		59.5	59.5
44.7	14:56:57		44.7	44.7	57.3	15:11:57		57.3	57.3	53.2	15:29:57		53.2	53.2	59.4	15:50:57		59.4	59.4
45.8	14:57:00		45.8	45.8	58.7	15:12:00		58.7	58.7	57	15:30:00		57	57	56.2	15:51:00		56.2	56.2
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50.4	14:57:09		50.4	50.4	59.2	15:12:09		59.2	59.2	59.4	15:30:09		59.4	59.4	57.1	15:51:09		57.1	57.1
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47.1	14:57:15		47.1	47.1	57.5	15:12:15		57.5	57.5	60.1	15:30:15		60.1	60.1	62.2	15:51:15		62.2	62.2
46.6	14:57:18		46.6	46.6	57.6	15:12:18		57.6	57.6	61.7	15:30:18		61.7	61.7	60.6	15:51:18		60.6	60.6
55.9	14:57:21		55.9	55.9	57.6	15:12:21		57.6	57.6	61.3	15:30:21		61.3	61.3	59.3	15:51:21		59.3	59.3
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47.4	14:57:27		47.4	47.4	55.9	15:12:27		55.9	55.9	62.4	15:30:27		62.4	62.4	61.1	15:51:27		61.1	61.1
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53.6	14:57:33		53.6	53.6	55.6	15:12:33		55.6	55.6	61.6	15:30:33		61.6	61.6	62.5	15:51:33		62.5	62.5
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46.4	14:57:42		46.4	46.4	60.3	15:12:42		60.3	60.3	64.5	15:30:42		64.5	64.5	63.1	15:51:42		63.1	63.1
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48.2	14:57:54		48.2	48.2	62.4	15:12:54		62.4	62.4	64.6	15:30:54		64.6	64.6	61.8	15:51:54		61.8	61.8
46.5	14:57:57		46.5	46.5	63.2	15:12:57		63.2	63.2	62.5	15:30:57		62.5	62.5	65.9	15:51:57		65.9	65.9
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79.6	14:58:09		79.6	79.6	59	15:13:09		59	59	66.1	15:31:09		66.1	66.1	59.8	15:52:09		59.8	59.8
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47.2	14:59:09		47.2	47.2	61.4	15:14:09		61.4	61.4	66	15:32:09		66	66	60.2	15:53:09		60.2	60.2
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48.4	14:59:48		48.4	48.4	60	15:14:48		60	60	65.3	15:32:48		65.3	65.3	63.8	15:53:48		63.8	63.8
49.8	14:59:51		49.8	49.8	59.5	15:14:51		59.5	59.5	59.1	15:32:51		59.1	59.1	65.7	15:53:51		65.7	65.7
48.3	14:59:54		48.3	48.3	57.7	15:14:54		57.7	57.7	59.4	15:32:54		59.4	59.4	66.8	15:53:54		66.8	66.8
48.5	14:59:57		48.5	48.5	58.5	15:14:57		58.5	58.5	57.9	15:32:57		57.9	57.9	64.4	15:53:57		64.4	64.4
47.8	15:00:00		47.8	47.8	55.5	15:15:00		55.5	55.5	56	15:33:00		56	56	64	15:54:00		64	64
48	15:00:03		48	48	53.2	15:15:03		53.2	53.2	58.9	15:33:03		58.9	58.9	66.8	15:54:03		66.8	66.8
47.3	15:00:06		47.3	47.3	54.2	15:15:06		54.2	54.2	57.3	15:33:06		57.3	57.3	68.2	15:54:06		68.2	68.2
43.4	15:00:09		43.4	43.4	52.3	15:15:09		52.3	52.3	58.7	15:33:09		58.7	58.7	71.7	15:54:09		71.7	71.7
44.1	15:00:12		44.1	44.1	54	15:15:12		54	54	60.3	15:33:12		60.3	60.3	69.7	15:54:12		69.7	69.7
46.6	15:00:15		46.6	46.6	62.3	15:15:15		62.3	62.3	60.9	15:33:15		60.9	60.9	66.6	15:54:15		66.6	66.6
43.5	15:00:18		43.5	43.5	60.2	15:15:18		60.2	60.2	61	15:33:18		61	61	66.8	15:54:18		66.8	66.8
46.8	15:00:21		46.8	46.8	61.4	15:15:21		61.4	61.4	60.2	15:33:21		60.2	60.2	64.5	15:54:21		64.5	64.5
43.9	15:00:24		43.9	43.9	58.5	15:15:24		58.5	58.5	58.6	15:33:24		58.6	58.6	63.5	15:54:24		63.5	63.5
47.5	15:00:27		47.5	47.5	58.4	15:15:27		58.4	58.4	58	15:33:27		58	58	64.1	15:54:27		64.1	64.1
53	15:00:30		53	53	60.1	15:15:30		60.1	60.1	58.1	15:33:30		58.1	58.1	66.3	15:54:30		66.3	66.3
48.2	15:00:33		48.2	48.2	62	15:15:33		62	62	59	15:33:33		59	59	62.4	15:54:33		62.4	62.4
45.7	15:00:36		45.7	45.7	63.5	15:15:36		63.5	63.5	61.8	15:33:36		61.8	61.8	60.3	15:54:36		60.3	60.3
43.4	15:00:39		43.4	43.4	62.9	15:15:39		62.9	62.9	60.2	15:33:39		60.2	60.2	66.7	15:54:39		66.7	66.7
41.1	15:00:42		41.1	41.1	62.4	15:15:42		62.4	62.4	56.3	15:33:42		56.3	56.3	67.9	15:54:42		67.9	67.9
48.1	15:00:45		48.1	48.1	60.2	15:15:45		60.2	60.2	57.8	15:33:45		57.8	57.8	62.8	15:54:45		62.8	62.8
46.5	15:00:48		46.5	46.5	60.2	15:15:48		60.2	60.2	62.5	15:33:48		62.5	62.5	58.8	15:54:48		58.8	58.8
40.8	15:00:51		40.8	40.8	59	15:15:51		59	59	58.2	15:33:51		58.2	58.2	57	15:54:51		57	57
41.5	15:00:54		41.5	41.5	57.8	15:15:54		57.8	57.8	60.8	15:33:54		60.8	60.8	61.6	15:54:54		61.6	61.6
42.4	15:00:57		42.4	42.4	58.2	15:15:57		58.2	58.2	63.1	15:33:57		63.1	63.1	64.3	15:54:57		64.3	64.3
44.7	15:01:00		44.7	44.7	61.1	15:16:00		61.1	61.1	62.8	15:34:00		62.8	62.8	65	15:55:00		65	65
44.3	15:01:03		44.3	44.3	61.7	15:16:03		61.7	61.7	61.2	15:34:03		61.2	61.2	67.1	15:55:03		67.1	67.1
42.5	15:01:06		42.5	42.5	62	15:16:06		62	62	56.7	15:34:06		56.7	56.7	62.5	15:55:06		62.5	62.5
42.8	15:01:09		42.8	42.8	61.6	15:16:09		61.6	61.6	52.4	15:34:09		52.4	52.4	64	15:55:09		64	64
43.3	15:01:12		43.3	43.3	59	15:16:12		59	59	57.2	15:34:12		57.2	57.2	65.9	15:55:12		65.9	65.9
44.7	15:01:15		44.7	44.7	58.3	15:16:15		58.3	58.3	60.8	15:34:15		60.8	60.8	62.5	15:55:15		62.5	62.5
42	15:01:18		42	42	56.7	15:16:18		56.7	56.7	54.2	15:34:18		54.2	54.2	57.7	15:55:18		57.7	57.7
40.8	15:01:21		40.8	40.8	58	15:16:21		58	58	50.5	15:34:21		50.5	50.5	60.1	15:55:21		60.1	60.1
45.5	15:01:24		45.5	45.5	55.8	15:16:24		55.8	55.8	47.7	15:34:24		47.7	47.7	60.4	15:55:24		60.4	60.4
45.3	15:01:27		45.3	45.3	55	15:16:27		55	55	50.9	15:34:27		50.9	50.9	66.9	15:55:27		66.9	66.9
45.8	15:01:30		45.8	45.8	56.2	15:16:30		56.2	56.2	56.5	15:34:30		56.5	56.5	61.6	15:55:30		61.6	61.6
45.8	15:01:33		45.8	45.8	58.1	15:16:33		58.1	58.1	62.5	15:34:33		62.5	62.5	64.7	15:55:33		64.7	64.7
48.9	15:01:36		48.9	48.9	59.8	15:16:36		59.8	59.8	55.5	15:34:36		55.5	55.5	65.4	15:55:36		65.4	65.4
44.5	15:01:39		44.5	44.5	59.2	15:16:39		59.2	59.2	59.8	15:34:39		59.8	59.8	64.6	15:55:39		64.6	64.6
45.4	15:01:42		45.4	45.4	60.2	15:16:42		60.2	60.2	56.7	15:34:42		56.7	56.7	72.8	15:55:42		72.8	72.8
44.3	15:01:45		44.3	44.3	58.7	15:16:45		58.7	58.7	59.7	15:34:45		59.7	59.7	68.7	15:55:45		68.7	68.7
45.4	15:01:48		45.4	45.4	58.5	15:16:48		58.5	58.5	61.2	15:34:48		61.2	61.2	65.1	15:55:48		65.1	65.1
42.5	15:01:51		42.5	42.5	57.6	15:16:51		57.6	57.6	59.6	15:34:51		59.6	59.6	68.8	15:55:51		68.8	68.8
44.7	15:01:54		44.7	44.7	60.4	15:16:54		60.4	60.4	58.9	15:34:54		58.9	58.9	65.9	15:55:54		65.9	65.9
45.7	15:01:57		45.7	45.7	59	15:16:57		59	59	55.8	15:34:57		55.8	55.8	66.8	15:55:57		66.8	66.8
43.8	15:02:00		43.8	43.8	58.6	15:17:00		58.6	58.6	56.5	15:35:00		56.5	56.5	64.9	15:56:00		64.9	64.9
41.9	15:02:03		41.9	41.9	57.2	15:17:03		57.2	57.2	57	15:35:03		57	57	61.2	15:56:03		61.2	61.2
42.1	15:02:06		42.1	42.1	54.3	15:17:06		54.3	54.3	58.1	15:35:06		58.1	58.1	58.2	15:56:06		58.2	58.2

Site A - On Townsend St 120 feet from BNSF RR

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
40.5	15:02:09		40.5	40.5
40.3	15:02:12		40.3	40.3
42.9	15:02:15		42.9	42.9
42.5	15:02:18		42.5	42.5
41.7	15:02:21		41.7	41.7
42.6	15:02:24		42.6	42.6
42	15:02:27		42	42
47.6	15:02:30		47.6	47.6
42.6	15:02:33		42.6	42.6
43	15:02:36		43	43
42.3	15:02:39		42.3	42.3
40.3	15:02:42		40.3	40.3
42.9	15:02:45		42.9	42.9
40.4	15:02:48		40.4	40.4
40.2	15:02:51		40.2	40.2
44.3	15:02:54		44.3	44.3
40.8	15:02:57		40.8	40.8
40.8	15:03:00		40.8	40.8
39.7	15:03:03		39.7	39.7
41.5	15:03:06		41.5	41.5
40	15:03:09		40	40
40.6	15:03:12		40.6	40.6
43.6	15:03:15		43.6	43.6
43	15:03:18		43	43
41	15:03:21		41	41
39.8	15:03:24		39.8	39.8
40.3	15:03:27		40.3	40.3
40.8	15:03:30		40.8	40.8
40.1	15:03:33		40.1	40.1
39	15:03:36		39	39
40.3	15:03:39		40.3	40.3
40.3	15:03:42		40.3	40.3
40.2	15:03:45		40.2	40.2
39.8	15:03:48		39.8	39.8
41	15:03:51		41	41
40.5	15:03:54		40.5	40.5
40.2	15:03:57		40.2	40.2
40.5	15:04:00	60.9	40.5	40.5
39.8	15:04:03	60.9	39.8	39.8
40.3	15:04:06	60.9	40.3	40.3
44	15:04:09	60.9	44	44
45.4	15:04:12	60.9	45.4	45.4
47.2	15:04:15	60.9	47.2	47.2
45.5	15:04:18	60.9	45.5	45.5
46.8	15:04:21	60.9	46.8	46.8
46.9	15:04:24	60.9	46.9	46.9
51.2	15:04:27	60.9	51.2	51.2
53.3	15:04:30	60.9	53.3	53.3
49.3	15:04:33	60.9	49.3	49.3
47.1	15:04:36	60.9	47.1	47.1
48.8	15:04:39	60.9	48.8	48.8
51.6	15:04:42	60.9	51.6	51.6
52.6	15:04:45	60.9	52.6	52.6
48.6	15:04:48	60.9	48.6	48.6
48	15:04:51	60.9	48	48
44.1	15:04:54	60.9	44.1	44.1
40.5	15:04:57	60.9	40.5	40.5
41.3	15:05:00	60.9	41.3	41.3
44.3	15:05:03	60.9	44.3	44.3
42.5	15:05:06	60.9	42.5	42.5
41.6	15:05:09	60.9	41.6	41.6
44.2	15:05:12	60.8	44.2	44.2
40.2	15:05:15	60.8	40.2	40.2
40.6	15:05:18	60.8	40.6	40.6
41.3	15:05:21	60.8	41.3	41.3
40.3	15:05:24	60.8	40.3	40.3
39.6	15:05:27	60.8	39.6	39.6
42.6	15:05:30	60.8	42.6	42.6
40.2	15:05:33	60.8	40.2	40.2
39.6	15:05:36	60.8	39.6	39.6
40	15:05:39	60.8	40	40
39.1	15:05:42	60.8	39.1	39.1
38	15:05:45	60.8	38	38
38.6	15:05:48	60.8	38.6	38.6
40	15:05:51	60.8	40	40
40.5	15:05:54	60.8	40.5	40.5
38.9	15:05:57	60.8	38.9	38.9
40.1	15:06:00	60.8	40.1	40.1
43.8	15:06:03	60.8	43.8	43.8
39.4	15:06:06	60.8	39.4	39.4
38.6	15:06:09	60.8	38.6	38.6
38.2	15:06:12	60.8	38.2	38.2
38.4	15:06:15	60.8	38.4	38.4
39.9	15:06:18	60.8	39.9	39.9
37.6	15:06:21	60.8	37.6	37.6
37.4	15:06:24	60.8	37.4	37.4
38.2	15:06:27	60.8	38.2	38.2
39.7	15:06:30	60.8	39.7	39.7
38.4	15:06:33	60.8	38.4	38.4
37.6	15:06:36	60.8	37.6	37.6
40.5	15:06:39	60.8	40.5	40.5
39.8	15:06:42	60.8	39.8	39.8
40.4	15:06:45	60.8	40.4	40.4
40.5	15:06:48	60.8	40.5	40.5
43	15:06:51	60.8	43	43
44.2	15:06:54	60.8	44.2	44.2
41.7	15:06:57	60.8	41.7	41.7
40.8	15:07:00	60.8	40.8	40.8
38	15:07:03	60.8	38	38
37.1	15:07:06	60.8	37.1	37.1
37	15:07:09	60.8	37	37
37.3	15:07:12	60.8	37.3	37.3
38.5	15:07:15	60.8	38.5	38.5
39.9	15:07:18	60.8	39.9	39.9
39.3	15:07:21	60.8	39.3	39.3
40.4	15:07:24	60.8	40.4	40.4
43.4	15:07:27	60.8	43.4	43.4
49.9	15:07:30	60.8	49.9	49.9
47.6	15:07:33	60.8	47.6	47.6
45.2	15:07:36	60.8	45.2	45.2
41.4	15:07:39	60.8	41.4	41.4
41.6	15:07:42	60.8	41.6	41.6
41.4	15:07:45	60.8	41.4	41.4
45.8	15:07:48	60.8	45.8	45.8
53	15:07:51	60.8	53	53
64.3	15:07:54	60.8	64.3	64.3
62.9	15:07:57	60.8	62.9	62.9
54.8	15:08:00	60.8	54.8	54.8
44.8	15:08:03	60.8	44.8	44.8
42.6	15:08:06	60.8	42.6	42.6
40.8	15:08:09	60.8	40.8	40.8
43.1	15:08:12	60.8	43.1	43.1
45.7	15:08:15	60.8	45.7	45.7
43.4	15:08:18	60.8	43.4	43.4
42.1	15:08:21	60.8	42.1	42.1
42.5	15:08:24	60.8	42.5	42.5
40.5	15:08:27	60.8	40.5	40.5
39.7	15:08:30	60.9	39.7	39.7
39.6	15:08:33	60.9	39.6	39.6
39.6	15:08:36	61.0	39.6	39.6
41.3	15:08:39	61.0	41.3	41.3
38.7	15:08:42	61.0	38.7	38.7
38.3	15:08:45	61.0	38.3	38.3
38.1	15:08:48	61.1	38.1	38.1
37	15:08:51	61.1	37	37
37.4	15:08:54	61.1	37.4	37.4
38	15:08:57	61.1	38	38
37.7	15:09:00	61.1	37.7	37.7
37.2	15:09:03	61.2	37.2	37.2
37.7	15:09:06	61.2	37.7	37.7
38.2	15:09:09	61.2	38.2	38.2
40.1	15:09:12	61.2	40.1	40.1
40.8	15:09:15	61.2	40.8	40.8
39.9	15:09:18	61.3	39.9	39.9
40	15:09:21	61.3	40	40
45.4	15:09:24	61.3	45.4	45.4
42	15:09:27	61.4	42	42
39.9	15:09:30	61.4	39.9	39.9
42.3	15:09:33	61.4	42.3	42.3
41.4	15:09:36	61.5	41.4	41.4
43.8	15:09:39	61.5	43.8	43.8
42.6	15:09:42	61.5	42.6	42.6
44.2	15:09:45	61.5	44.2	44.2
47.5	15:09:48	61.5	47.5	47.5
42.9	15:09:51	61.5	42.9	42.9
41.3	15:09:54	61.5	41.3	41.3
41.2	15:09:57	61.5	41.2	41.2
40.6	15:10:00	61.5	40.6	40.6
39.4	15:10:03	61.5	39.4	39.4
41.8	15:10:06	61.5	41.8	41.8
41.7	15:10:09	61.5	41.7	41.7
41.4	15:10:12	61.5	41.4	41.4
43.6	15:10:15	61.5	43.6	43.6
41.8	15:10:18	61.5	41.8	41.8
43.2	15:10:21	61.4	43.2	43.2
44.6	15:10:24	61.4	44.6	44.6
44.6	15:10:27	61.4	44.6	44.6
42.5	15:10:30	61.4	42.5	42.5
47.4	15:10:33	61.4	47.4	47.4
44.1	15:10:36	61.4	44.1	44.1
42.3	15:10:39	61.4	42.3	42.3
42.5	15:10:42	61.4	42.5	42.5
40.2	15:10:45	61.4	40.2	40.2
40.6	15:10:48	61.4	40.6	40.6
40.6	15:10:51	61.5	40.6	40.6
39.7	15:10:54	61.5	39.7	39.7
41.9	15:10:57	61.5	41.9	41.9
40.8	15:11:00	61.5	40.8	40.8
40.3	15:11:03	61.5	40.3	40.3
40.2	15:11:06	61.5	40.2	40.2
38.9	15:11:09	61.5	38.9	38.9
40	15:11:12	61.5	40	40
41.2	15:11:15	61.5	41.2	41.2
40.7	15:11:18	61.5	40.7	40.7
41.3	15:11:21	61.5	41.3	41.3
42.9	15:11:24	61.5	42.9	42.9
44.1	15:11:27	61.5	44.1	44.1
43.4	15:11:30	61.5	43.4	43.4
42.9	15:11:33	61.5	42.9	42.9
40.5	15:11:36	61.5	40.5	40.5
40.7	15:11:39	61.5	40.7	40.7
39.9	15:11:42	61.5	39.9	39.9
43.7	15:11:45	61.5	43.7	43.7
43.6	15:11:48	61.5	43.6	43.6
45.1	15:11:51	61.5	45.1	45.1
52.4	15:11:54	61.5	52.4	52.4
44.7	15:11:57	61.5	44.7	44.7
43.2	15:12:00	61.6	43.2	43.2
43.3	15:12:03	61.6	43.3	43.3
43.5	15:12:06	61.6	43.5	43.5
44.8	15:12:09	61.6	44.8	44.8
40.7	15:12:12	61.6	40.7	40.7
44.6	15:12:15	61.6	44.6	44.6
42.3	15:12:18	61.6	42.3	42.3
44.2	15:12:21	61.6	44.2	44.2
40.6	15:12:24	61.6	40.6	40.6
42	15:12:27	61.6	42	42
43.2	15:12:30	61.6	43.2	43.2
41	15:12:33	61.6	41	41
45.1	15:12:36	61.6	45.1	45.1
44.2	15:12:39	61.6	44.2	44.2
42.2	15:12:42	61.6	42.2	42.2
42.2	15:12:45	61.6	42.2	42.2
41.6	15:12:48	61.6	41.6	41.6
49.7	15:12:51	61.6	49.7	49.7
48	15:12:54	61.6	48	48
49.3	15:12:57	61.6	49.3	49.3
49.3	15:13:00	61.6	49.3	49.3
48.2	15:13:03	61.6	48.2	48.2
47.4	15:13:06	61.6	47.4	47.4
45.4	15:13:09	61.6	45.4	45.4

Site B - NE corner of Park N Ride Lot on L Street

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
54.5	15:17:09		54.5	54.5
54.3	15:17:12		54.3	54.3
58.1	15:17:15		58.1	58.1
59.8	15:17:18		59.8	59.8
60.7	15:17:21		60.7	60.7
58.8	15:17:24		58.8	58.8
61	15:17:27		61	61
58.1	15:17:30		58.1	58.1
56.8	15:17:33		56.8	56.8
58.9	15:17:36		58.9	58.9
57.4	15:17:39		57.4	57.4
55.3	15:17:42		55.3	55.3
54.1	15:17:45		54.1	54.1
53.7	15:17:48		53.7	53.7
54.6	15:17:51		54.6	54.6
55.1	15:17:54		55.1	55.1
56.3	15:17:57		56.3	56.3
56.6	15:18:00		56.6	56.6
61.2	15:18:03		61.2	61.2
60.6	15:18:06		60.6	60.6
59.5	15:18:09		59.5	59.5
60.5	15:18:12		60.5	60.5
56.8	15:18:15		56.8	56.8
58	15:18:18		58	58
57.8	15:18:21		57.8	57.8
57.2	15:18:24		57.2	57.2
55.8	15:18:27		55.8	55.8
60	15:18:30		60	60
60.4	15:18:33		60.4	60.4
61.7	15:18:36		61.7	61.7
62.6	15:18:39		62.6	62.6
57.9	15:18:42		57.9	57.9
57.9	15:18:45		57.9	57.9
55.7	15:18:48		55.7	55.7
55.2	15:18:51		55.2	55.2
56.7	15:18:54		56.7	56.7
55	15:18:57		55	55
58.7	15:19:00	59.6	58.7	58.7
59.1	15:19:03	59.6	59.1	59.1
60	15:19:06	59.6	60	60
58.3	15:19:09	59.6	58.3	58.3
59.3	15:19:12	59.6	59.3	59.3
59.5	15:19:15	59.6	59.5	59.5
59.6	15:19:18	59.5	59.6	59.6
61.5	15:19:21	59.5	61.5	61.5
61.6	15:19:24	59.5	61.6	61.6
65.5	15:19:27	59.5	65.5	65.5
61.3	15:19:30	59.5	61.3	61.3
61.9	15:19:33	59.5	61.9	61.9
61.2	15:19:36	59.5	61.2	61.2
58.9	15:19:39	59.5	58.9	58.9
58.2	15:19:42	59.5	58.2	58.2
56.9	15:19:45	59.5	56.9	56.9
58	15:19:48	59.5	58	58
57.9	15:19:51	59.5	57.9	57.9
56	15:19:54	59.5	56	56
55.1	15:19:57	59.5	55.1	55.1
55.1	15:20:00	59.5	55.1	55.1
58.9	15:20:03	59.4	58.9	58.9
58.5	15:20:06	59.4	58.5	58.5
59.4	15:20:09	59.4	59.4	59.4
61.8	15:20:12	59.4	61.8	61.8
61.8	15:20:15	59.4	61.8	61.8
62.5	15:20:18	59.4	62.5	62.5
61.2	15:20:21	59.4	61.2	61.2
60.7	15:20:24	59.4	60.7	60.7
61.1	15:20:27	59.4	61.1	61.1
60.8	15:20:30	59.4	60.8	60.8
62.5	15:20:33	59.3	62.5	62.5
59.4	15:20:36	59.4	59.4	59.4
60.9	15:20:39	59.4	60.9	60.9
59.7	15:20:42	59.4	59.7	59.7
58.1	15:20:45	59.3	58.1	58.1
58.1	15:20:48	59.3	58.1	58.1
55.3	15:20:51	59.3	55.3	55.3
56	15:20:54	59.3	56	56
57.8	15:20:57	59.3	57.8	57.8
57.5	15:21:00	59.3	57.5	57.5
57.8	15:21:03	59.3	57.8	57.8
56	15:21:06	59.3	56	56
55.2	15:21:09	59.3	55.2	55.2
55.6	15:21:12	59.3	55.6	55.6
57.2	15:21:15	59.3	57.2	57.2
60.8	15:21:18	59.3	60.8	60.8
60.8	15:21:21	59.3	60.8	60.8
59.7	15:21:24	59.3	59.7	59.7
60	15:21:27	59.3	60	60
58.7	15:21:30	59.2	58.7	58.7
57.8	15:21:33	59.2	57.8	57.8
57	15:21:36	59.2	57	57
60.5	15:21:39	59.2	60.5	60.5
60.3	15:21:42	59.2	60.3	60.3
61.7	15:21:45	59.2	61.7	61.7
61.2	15:21:48	59.2	61.2	61.2
60.9	15:21:51	59.2	60.9	60.9
59.3	15:21:54	59.2	59.3	59.3
57.6	15:21:57	59.2	57.6	57.6
57.3	15:22:00	59.2	57.3	57.3
61	15:22:03	59.2	61	61
61.9	15:22:06	59.1	61.9	61.9
60.3	15:22:09	59.1	60.3	60.3
59.1	15:22:12	59.1	59.1	59.1
56.5	15:22:15	59.1	56.5	56.5
54.9	15:22:18	59.1	54.9	54.9
54.8	15:22:21	59.1	54.8	54.8
54.6	15:22:24	59.1	54.6	54.6
56.3	15:22:27	59.1	56.3	56.3
58.1	15:22:30	59.1	58.1	58.1
57.6	15:22:33	59.1	57.6	57.6
56.3	15:22:36	59.1	56.3	56.3
56.5	15:22:39	59.1	56.5	56.5
57.4	15:22:42	59.1	57.4	57.4
57.1	15:22:45	59.1	57.1	57.1
57.3	15:22:48	59.1	57.3	57.3
59.7	15:22:51	59.1	59.7	59.7
53.8	15:22:54	59.1	53.8	53.8
54.2	15:22:57	59.2	54.2	54.2
50.3	15:23:00	59.2	50.3	50.3
50.5	15:23:03	59.2	50.5	50.5
53.9	15:23:06	59.2	53.9	53.9
57.7	15:23:09	59.2	57.7	57.7
60.5	15:23:12	59.2	60.5	60.5
58.4	15:23:15	59.2	58.4	58.4
57.8	15:23:18	59.2	57.8	57.8
58.2	15:23:21	59.2	58.2	58.2
60.1	15:23:24	59.2	60.1	60.1
61.6	15:23:27	59.2	61.6	61.6
62.8	15:23:30	59.2	62.8	62.8
61.4	15:23:33	59.2	61.4	61.4
61.4	15:23:36	59.2	61.4	61.4
59.5	15:23:39	59.2	59.5	59.5
60.3	15:23:42	59.2	60.3	60.3
61.6	15:23:45	59.2	61.6	61.6
62.8	15:23:48	59.2	62.8	62.8
59.8	15:23:51	59.2	59.8	59.8
62.8	15:23:54	59.2	62.8	62.8
61.7	15:23:57	59.2	61.7	61.7
59	15:24:00	59.2	59	59
61.3	15:24:03	59.2	61.3	61.3
59.3	15:24:06	59.2	59.3	59.3
59.8	15:24:09	59.2	59.8	59.8
58.9	15:24:12	59.2	58.9	58.9
60.2	15:24:15	59.2	60.2	60.2
55.8	15:24:18	59.2	55.8	55.8
56.6	15:24:21	59.2	56.6	56.6
60	15:24:24	59.2	60	60
59	15:24:27	59.2	59	59
57.3	15:24:30	59.2	57.3	57.3
57.6	15:24:33	59.2	57.6	57.6
57.9	15:24:36	59.2	57.9	57.9
60.6	15:24:39	59.2	60.6	60.6
61.9	15:24:42	59.2	61.9	61.9
59.1	15:24:45	59.2	59.1	59.1
60	15:24:48	59.2	60	60
57.9	15:24:51	59.2	57.9	57.9
59.9	15:24:54	59.2	59.9	59.9
58.6	15:24:57	59.2	58.6	58.6
57.2	15:25:00	59.2	57.2	57.2
60.3	15:25:03	59.2	60.3	60.3
58.1	15:25:06	59.2	58.1	58.1
58.7	15:25:09	59.2	58.7	58.7
59.2	15:25:12	59.2	59.2	59.2
58.1	15:25:15	59.2	58.1	58.1
57.3	15:25:18	59.2	57.3	57.3
56.7	15:25:21	59.2	56.7	56.7
53.5	15:25:24	59.2	53.5	53.5
56.2	15:25:27	59.2	56.2	56.2
59.4	15:25:30	59.2	59.4	59.4
60.7	15:25:33	59.1	60.7	60.7
61	15:25:36	59.1	61	61
58.9	15:25:39	59.1	58.9	58.9
57.3	15:25:42	59.1	57.3	57.3
58.8	15:25:45	59.1	58.8	58.8
57.4	15:25:48	59.1	57.4	57.4
59.4	15:25:51	59.1	59.4	59.4
58.5	15:25:54	59.1	58.5	58.5
57.9	15:25:57	59.1	57.9	57.9
55.2	15:26:00	59.1	55.2	55.2
53	15:26:03	59.1	53	53
56.5	15:26:06	59.1	56.5	56.5
53.6	15:26:09	59.1	53.6	53.6
53.9	15:26:12	59.1	53.9	53.9
56.6	15:26:15	59.1	56.6	56.6
57.3	15:26:18	59.1	57.3	57.3
58.6	15:26:21	59.1	58.6	58.6
59.7	15:26:24	59.1	59.7	59.7
59	15:26:27	59.1	59	59
58	15:26:30	59.1	58	58
57.5	15:26:33	59.1	57.5	57.5
58.5	15:26:36	59.1	58.5	58.5
60.9	15:26:39	59.1	60.9	60.9
62.9	15:26:42	59.1	62.9	62.9
61.6	15:26:45	59.1	61.6	61.6
57.6	15:26:48	59.1	57.6	57.6
56.1	15:26:51	59.1	56.1	56.1
53.1	15:26:54	59.1	53.1	53.1
53.5	15:26:57	59.1	53.5	53.5
53.9	15:27:00	59.1	53.9	53.9
55.2	15:27:03	59.1	55.2	55.2
57.5	15:27:06	59.1	57.5	57.5
59.2	15:27:09	59.1	59.2	59.2
58.7	15:27:12	59.1	58.7	58.7
57.9	15:27:15	59.1	57.9	57.9
59.6	15:27:18	59.1	59.6	59.6
60.8	15:27:21	59.1	60.8	60.8
59.7	15:27:24	59.1	59.7	59.7
57.8	15:27:27	59.1	57.8	57.8
56.7	15:27:30	59.1	56.7	56.7
59.5	15:27:33	59.1	59.5	59.5
59.3	15:27:36	59.1	59.3	59.3
61.4	15:27:39	59.1	61.4	61.4
60.5	15:27:42	59.1	60.5	60.5
60	15:27:45	59.1	60	60
58.8	15:27:48	59.1	58.8	58.8
59	15:27:51	59.1	59	59
60.2	15:27:54	59.1	60.2	60.2
59.9	15:27:57	59.1	59.9	59.9
60.1	15:28:00	59.1	60.1	60.1
62.6	15:28:03	59.1	62.6	62.6
61.7	15:28:06	59.1	61.7	61.7
61.4	15:28:09	59.1	61.4	61.4

Site C - On east property line of 2450 E Main St

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
61.9	15:35:09		61.9	61.9
59.5	15:35:12		59.5	59.5
57.5	15:35:15		57.5	57.5
56	15:35:18		56	56
58.4	15:35:21		58.4	58.4
58.1	15:35:24		58.1	58.1
60.9	15:35:27		60.9	60.9
59.2	15:35:30		59.2	59.2
56.2	15:35:33		56.2	56.2
55	15:35:36		55	55
58.4	15:35:39		58.4	58.4
61	15:35:42		61	61
62.5	15:35:45		62.5	62.5
61.6	15:35:48		61.6	61.6
62.9	15:35:51		62.9	62.9
61.1	15:35:54		61.1	61.1
56.3	15:35:57		56.3	56.3
56.6	15:36:00		56.6	56.6
61.3	15:36:03		61.3	61.3
61.4	15:36:06		61.4	61.4
60.6	15:36:09		60.6	60.6
61	15:36:12		61	61
60.6	15:36:15		60.6	60.6
61.3	15:36:18		61.3	61.3
61.2	15:36:21		61.2	61.2
62.9	15:36:24		62.9	62.9
64.2	15:36:27		64.2	64.2
62.8	15:36:30		62.8	62.8
63.9	15:36:33		63.9	63.9
62	15:36:36		62	62
58.4	15:36:39		58.4	58.4
57.5	15:36:42		57.5	57.5
56.7	15:36:45		56.7	56.7
60	15:36:48		60	60
59.5	15:36:51		59.5	59.5
64.3	15:36:54		64.3	64.3
63.6	15:36:57		63.6	63.6
60.5	15:37:00	61.2	60.5	60.5
60.7	15:37:03	61.2	60.7	60.7
57.9	15:37:06	61.2	57.9	57.9
58.9	15:37:09	61.2	58.9	58.9
59.7	15:37:12	61.2	59.7	59.7
59.5	15:37:15	61.2	59.5	59.5
61	15:37:18	61.2	61	61
57.3	15:37:21	61.2	57.3	57.3
58.6	15:37:24	61.2	58.6	58.6
60	15:37:27	61.2	60	60
56.5	15:37:30	61.1	56.5	56.5
57.1	15:37:33	61.1	57.1	57.1
55.7	15:37:36	61.1	55.7	55.7
53.7	15:37:39	61.1	53.7	53.7
56.5	15:37:42	61.1	56.5	56.5
54.2	15:37:45	61.1	54.2	54.2
54.4	15:37:48	61.1	54.4	54.4
59.8	15:37:51	61.1	59.8	59.8
59.3	15:37:54	61.1	59.3	59.3
64.5	15:37:57	61.1	64.5	64.5
62.4	15:38:00	61.1	62.4	62.4
56.2	15:38:03	61.1	56.2	56.2
59.3	15:38:06	61.1	59.3	59.3
55.2	15:38:09	61.1	55.2	55.2
55.3	15:38:12	61.0	55.3	55.3
54.7	15:38:15	61.0	54.7	54.7
53.9	15:38:18	61.0	53.9	53.9
61.4	15:38:21	61.0	61.4	61.4
67.9	15:38:24	61.0	67.9	67.9
60.7	15:38:27	61.0	60.7	60.7
59.8	15:38:30	61.0	59.8	59.8
57.2	15:38:33	61.0	57.2	57.2
58.6	15:38:36	61.0	58.6	58.6
61.6	15:38:39	61.0	61.6	61.6
56.6	15:38:42	61.0	56.6	56.6
60.2	15:38:45	61.0	60.2	60.2
62.3	15:38:48	61.0	62.3	62.3
62.8	15:38:51	61.0	62.8	62.8
60.4	15:38:54	61.0	60.4	60.4
60.1	15:38:57	61.0	60.1	60.1
60.5	15:39:00	61.0	60.5	60.5
62.1	15:39:03	61.0	62.1	62.1
59.7	15:39:06	61.0	59.7	59.7
56.8	15:39:09	61.0	56.8	56.8
59	15:39:12	60.9	59	59
58	15:39:15	60.9	58	58
56.7	15:39:18	60.9	56.7	56.7
62.2	15:39:21	60.9	62.2	62.2
60.7	15:39:24	60.9	60.7	60.7
58.1	15:39:27	60.9	58.1	58.1
59.9	15:39:30	60.9	59.9	59.9
57.8	15:39:33	60.9	57.8	57.8
61.4	15:39:36	60.9	61.4	61.4
59.4	15:39:39	60.9	59.4	59.4
59.4	15:39:42	60.9	59.4	59.4
60	15:39:45	60.9	60	60
57.3	15:39:48	60.9	57.3	57.3
57	15:39:51	60.9	57	57
62.8	15:39:54	60.9	62.8	62.8
65.8	15:39:57	60.9	65.8	65.8
64.1	15:40:00	60.9	64.1	64.1
63.5	15:40:03	60.9	63.5	63.5
60.1	15:40:06	60.9	60.1	60.1
56	15:40:09	60.9	56	56
60.1	15:40:12	60.8	60.1	60.1
58.2	15:40:15	60.8	58.2	58.2
53.8	15:40:18	60.8	53.8	53.8
53.6	15:40:21	60.8	53.6	53.6
59	15:40:24	60.8	59	59
62.3	15:40:27	60.8	62.3	62.3
60.7	15:40:30	60.8	60.7	60.7
59.8	15:40:33	60.8	59.8	59.8
63.4	15:40:36	60.8	63.4	63.4
58.1	15:40:39	60.8	58.1	58.1
58.1	15:40:42	60.8	58.1	58.1
62.7	15:40:45	60.8	62.7	62.7
59.5	15:40:48	60.8	59.5	59.5
62	15:40:51	60.8	62	62
58.5	15:40:54	60.8	58.5	58.5
64.9	15:40:57	60.8	64.9	64.9
63.5	15:41:00	60.8	63.5	63.5
65.4	15:41:03	60.8	65.4	65.4
62.5	15:41:06	60.8	62.5	62.5
62.3	15:41:09	60.8	62.3	62.3
65.5	15:41:12	60.8	65.5	65.5
61.5	15:41:15	60.7	61.5	61.5
63.2	15:41:18	60.7	63.2	63.2
63.9	15:41:21	60.7	63.9	63.9
61.3	15:41:24	60.7	61.3	61.3
59.7	15:41:27	60.7	59.7	59.7
60.8	15:41:30	60.7	60.8	60.8
58.6	15:41:33	60.7	58.6	58.6
62	15:41:36	60.7	62	62
59.5	15:41:39	60.7	59.5	59.5
57.1	15:41:42	60.7	57.1	57.1
54.4	15:41:45	60.7	54.4	54.4
59.6	15:41:48	60.7	59.6	59.6
62.8	15:41:51	60.7	62.8	62.8
59	15:41:54	60.7	59	59
61.7	15:41:57	60.7	61.7	61.7
58	15:42:00	60.7	58	58
57.8	15:42:03	60.7	57.8	57.8
60.6	15:42:06	60.7	60.6	60.6
62.5	15:42:09	60.7	62.5	62.5
61.1	15:42:12	60.7	61.1	61.1
60	15:42:15	60.7	60	60
58	15:42:18	60.7	58	58
59.6	15:42:21	60.7	59.6	59.6
62.4	15:42:24	60.7	62.4	62.4
62.7	15:42:27	60.7	62.7	62.7
61.9	15:42:30	60.7	61.9	61.9
58	15:42:33	60.7	58	58
54.4	15:42:36	60.7	54.4	54.4
53.9	15:42:39	60.7	53.9	53.9
57.6	15:42:42	60.7	57.6	57.6
59	15:42:45	60.7	59	59
56.9	15:42:48	60.7	56.9	56.9
56.4	15:42:51	60.7	56.4	56.4
59.8	15:42:54	60.7	59.8	59.8
61.8	15:42:57	60.7	61.8	61.8
62.1	15:43:00	60.7	62.1	62.1
66.4	15:43:03	60.7	66.4	66.4
63.9	15:43:06	60.7	63.9	63.9
58.5	15:43:09	60.7	58.5	58.5
60	15:43:12	60.7	60	60
58.1	15:43:15	60.7	58.1	58.1
56	15:43:18	60.7	56	56
54.9	15:43:21	60.7	54.9	54.9
57.3	15:43:24	60.7	57.3	57.3
58.2	15:43:27	60.7	58.2	58.2
55.6	15:43:30	60.7	55.6	55.6
54	15:43:33	60.7	54	54
56.9	15:43:36	60.7	56.9	56.9
58.4	15:43:39	60.7	58.4	58.4
57.5	15:43:42	60.7	57.5	57.5
57	15:43:45	60.7	57	57
55.8	15:43:48	60.7	55.8	55.8
58.3	15:43:51	60.7	58.3	58.3
61.5	15:43:54	60.7	61.5	61.5
60.6	15:43:57	60.7	60.6	60.6
63.3	15:44:00	60.7	63.3	63.3
63.6	15:44:03	60.7	63.6	63.6
62.7	15:44:06	60.7	62.7	62.7
61.6	15:44:09	60.7	61.6	61.6
59.1	15:44:12	60.7	59.1	59.1
59.1	15:44:15	60.7	59.1	59.1
57.6	15:44:18	60.7	57.6	57.6
56.9	15:44:21	60.6	56.9	56.9
54.4	15:44:24	60.7	54.4	54.4
57.5	15:44:27	60.7	57.5	57.5
52.1	15:44:30	60.7	52.1	52.1
56.4	15:44:33	60.7	56.4	56.4
60.7	15:44:36	60.7	60.7	60.7
59.2	15:44:39	60.7	59.2	59.2
56.9	15:44:42	60.7	56.9	56.9
55.2	15:44:45	60.7	55.2	55.2
58.1	15:44:48	60.7	58.1	58.1
57.4	15:44:51	60.7	57.4	57.4
57	15:44:54	60.7	57	57
61.5	15:44:57	60.7	61.5	61.5
60	15:45:00	60.7	60	60
59	15:45:03	60.7	59	59
61	15:45:06	60.7	61	61
61.7	15:45:09	60.7	61.7	61.7
58.4	15:45:12	60.7	58.4	58.4
61.1	15:45:15	60.7	61.1	61.1
64.4	15:45:18	60.7	64.4	64.4
64	15:45:21	60.7	64	64
60.9	15:45:24	60.7	60.9	60.9
59.1	15:45:27	60.7	59.1	59.1
60.9	15:45:30	60.7	60.9	60.9
61.4	15:45:33	60.7	61.4	61.4
62.5	15:45:36	60.7	62.5	62.5
61	15:45:39	60.7	61	61
59.8	15:45:42	60.7	59.8	59.8
59.9	15:45:45	60.7	59.9	59.9
61.4	15:45:48	60.7	61.4	61.4
60.2	15:45:51	60.7	60.2	60.2
61.5	15:45:54	60.7	61.5	61.5
61.4	15:45:57	60.7	61.4	61.4
59.1	15:46:00	60.7	59.1	59.1
56.3	15:46:03	60.7	56.3	56.3
56.4	15:46:06	60.7	56.4	56.4
56.9	15:46:09	60.7	56.9	56.9

Site D - SW Corner of Armory Rd & Barstow Rd

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
60.7	15:56:09		60.7	60.7
62.7	15:56:12		62.7	62.7
63	15:56:15		63	63
62.8	15:56:18		62.8	62.8
64.5	15:56:21		64.5	64.5
68.8	15:56:24		68.8	68.8
73	15:56:27		73	73
73.2	15:56:30		73.2	73.2
69.7	15:56:33		69.7	69.7
65.4	15:56:36		65.4	65.4
62.5	15:56:39		62.5	62.5
61.3	15:56:42		61.3	61.3
59.4	15:56:45		59.4	59.4
55.4	15:56:48		55.4	55.4
57	15:56:51		57	57
61.3	15:56:54		61.3	61.3
65.5	15:56:57		65.5	65.5
66.9	15:57:00		66.9	66.9
69	15:57:03		69	69
69.6	15:57:06		69.6	69.6
68.3	15:57:09		68.3	68.3
67.7	15:57:12		67.7	67.7
65	15:57:15		65	65
57.6	15:57:18		57.6	57.6
58.5	15:57:21		58.5	58.5
60.1	15:57:24		60.1	60.1
60.8	15:57:27		60.8	60.8
62	15:57:30		62	62
64.6	15:57:33		64.6	64.6
64	15:57:36		64	64
59	15:57:39		59	59
56.5	15:57:42		56.5	56.5
66	15:57:45		66	66
68.3	15:57:48		68.3	68.3
65.8	15:57:51		65.8	65.8
62.9	15:57:54		62.9	62.9
65.7	15:57:57		65.7	65.7
65.2	15:58:00	66.1	65.2	65.2
59.4	15:58:03	66.1	59.4	59.4
56.6	15:58:06	66.1	56.6	56.6
59.6	15:58:09	66.1	59.6	59.6
61.3	15:58:12	66.1	61.3	61.3
63.6	15:58:15	66.1	63.6	63.6
60.2	15:58:18	66.1	60.2	60.2
68.6	15:58:21	66.1	68.6	68.6
66	15:58:24	66.1	66	66
64	15:58:27	66.1	64	64
57.3	15:58:30	66.1	57.3	57.3
54.7	15:58:33	66.1	54.7	54.7
55.2	15:58:36	66.1	55.2	55.2
60.5	15:58:39	66.1	60.5	60.5
64.5	15:58:42	66.1	64.5	64.5
65	15:58:45	66.1	65	65
65.6	15:58:48	66.1	65.6	65.6
65.7	15:58:51	66.1	65.7	65.7
62.6	15:58:54	66.1	62.6	62.6
64.2	15:58:57	66.1	64.2	64.2
65.2	15:59:00	66.1	65.2	65.2
67.9	15:59:03	66.1	67.9	67.9
64.6	15:59:06	66.1	64.6	64.6
67.3	15:59:09	66.1	67.3	67.3
69.2	15:59:12	66.1	69.2	69.2
64.8	15:59:15	66.1	64.8	64.8
62.8	15:59:18	66.1	62.8	62.8
64.5	15:59:21	66.1	64.5	64.5
64.3	15:59:24	66.1	64.3	64.3
66.8	15:59:27	66.1	66.8	66.8
63.7	15:59:30	66.1	63.7	63.7
59.8	15:59:33	66.0	59.8	59.8
60.7	15:59:36	66.0	60.7	60.7
64.4	15:59:39	66.0	64.4	64.4
72	15:59:42	66.0	72	72
69.9	15:59:45	66.0	69.9	69.9
63.8	15:59:48	66.0	63.8	63.8
61.9	15:59:51	66.0	61.9	61.9
62.7	15:59:54	66.0	62.7	62.7
64.3	15:59:57	66.0	64.3	64.3
64.3	16:00:00	66.0	64.3	64.3
63.9	16:00:03	66.0	63.9	63.9
68.2	16:00:06	66.0	68.2	68.2
70.7	16:00:09	66.0	70.7	70.7
67.6	16:00:12	66.0	67.6	67.6
66.4	16:00:15	66.0	66.4	66.4
64.8	16:00:18	66.0	64.8	64.8
68	16:00:21	66.0	68	68
61.9	16:00:24	66.0	61.9	61.9
56.6	16:00:27	66.0	56.6	56.6
59.7	16:00:30	66.0	59.7	59.7
60.2	16:00:33	66.0	60.2	60.2
56.4	16:00:36	66.0	56.4	56.4
56	16:00:39	66.0	56	56
63.8	16:00:42	66.0	63.8	63.8
67.3	16:00:45	66.0	67.3	67.3
60.6	16:00:48	66.0	60.6	60.6
59.2	16:00:51	66.0	59.2	59.2
61.4	16:00:54	66.0	61.4	61.4
61	16:00:57	66.0	61	61
68.8	16:01:00	66.0	68.8	68.8
67.6	16:01:03	66.0	67.6	67.6
61.6	16:01:06	66.0	61.6	61.6
58.3	16:01:09	66.0	58.3	58.3
60.5	16:01:12	66.0	60.5	60.5
62.1	16:01:15	66.0	62.1	62.1
59.5	16:01:18	66.0	59.5	59.5
59.4	16:01:21	66.0	59.4	59.4
61.9	16:01:24	66.0	61.9	61.9
59.6	16:01:27	66.0	59.6	59.6
64.1	16:01:30	66.0	64.1	64.1
61.6	16:01:33	66.0	61.6	61.6
58.6	16:01:36	66.0	58.6	58.6
64.2	16:01:39	66.0	64.2	64.2
64.5	16:01:42	66.0	64.5	64.5
60.1	16:01:45	66.0	60.1	60.1
57.7	16:01:48	66.0	57.7	57.7
58.4	16:01:51	66.0	58.4	58.4
57.9	16:01:54	66.0	57.9	57.9
58.9	16:01:57	66.0	58.9	58.9
60.4	16:02:00	66.0	60.4	60.4
60.2	16:02:03	66.0	60.2	60.2
60.8	16:02:06	66.0	60.8	60.8
59.3	16:02:09	66.0	59.3	59.3
59.7	16:02:12	66.0	59.7	59.7
58.1	16:02:15	66.0	58.1	58.1
62.7	16:02:18	66.0	62.7	62.7
66.4	16:02:21	66.0	66.4	66.4
65.2	16:02:24	66.0	65.2	65.2
64.7	16:02:27	66.0	64.7	64.7
64.7	16:02:30	66.0	64.7	64.7
64.6	16:02:33	66.0	64.6	64.6
65.6	16:02:36	66.0	65.6	65.6
67.4	16:02:39	66.0	67.4	67.4
65.2	16:02:42	66.0	65.2	65.2
65	16:02:45	66.0	65	65
65.9	16:02:48	66.0	65.9	65.9
72	16:02:51	66.0	72	72
70.4	16:02:54	66.0	70.4	70.4
69	16:02:57	66.0	69	69
65.9	16:03:00	66.0	65.9	65.9
62	16:03:03	66.0	62	62
61.2	16:03:06	66.0	61.2	61.2
63.4	16:03:09	66.0	63.4	63.4
68	16:03:12	66.0	68	68
66	16:03:15	66.0	66	66
64.7	16:03:18	66.0	64.7	64.7
67.6	16:03:21	66.0	67.6	67.6
68.6	16:03:24	66.0	68.6	68.6
67.8	16:03:27	66.0	67.8	67.8
64.8	16:03:30	66.0	64.8	64.8
63.6	16:03:33	66.0	63.6	63.6
64	16:03:36	66.0	64	64
63.8	16:03:39	66.0	63.8	63.8
61.5	16:03:42	66.0	61.5	61.5
64.7	16:03:45	66.0	64.7	64.7
71.1	16:03:48	66.0	71.1	71.1
68.6	16:03:51	66.0	68.6	68.6
62.3	16:03:54	66.0	62.3	62.3
62.1	16:03:57	66.0	62.1	62.1
69.1	16:04:00	66.0	69.1	69.1
66.9	16:04:03	66.0	66.9	66.9
64.6	16:04:06	66.0	64.6	64.6
66.4	16:04:09	66.0	66.4	66.4
66.3	16:04:12	66.0	66.3	66.3
65.4	16:04:15	66.0	65.4	65.4
58.9	16:04:18	66.0	58.9	58.9
57.6	16:04:21	66.0	57.6	57.6
59.6	16:04:24	66.0	59.6	59.6
59.4	16:04:27	66.1	59.4	59.4
62	16:04:30	66.1	62	62
60.8	16:04:33	66.1	60.8	60.8
59.2	16:04:36	66.1	59.2	59.2
64.7	16:04:39	66.1	64.7	64.7
62.8	16:04:42	66.1	62.8	62.8
60.3	16:04:45	66.1	60.3	60.3
65.4	16:04:48	66.1	65.4	65.4
67	16:04:51	66.1	67	67
68	16:04:54	66.1	68	68
65.3	16:04:57	66.1	65.3	65.3
59.8	16:05:00	66.1	59.8	59.8
57.7	16:05:03	66.1	57.7	57.7
59.2	16:05:06	66.1	59.2	59.2
57.1	16:05:09	66.1	57.1	57.1
58.1	16:05:12	66.1	58.1	58.1
58.2	16:05:15	66.1	58.2	58.2
62.2	16:05:18	66.1	62.2	62.2
64.2	16:05:21	66.1	64.2	64.2
62.3	16:05:24	66.1	62.3	62.3
58.7	16:05:27	66.1	58.7	58.7
56.6	16:05:30	66.1	56.6	56.6
56.7	16:05:33	66.1	56.7	56.7
59.1	16:05:36	66.1	59.1	59.1
62.9	16:05:39	66.1	62.9	62.9
63	16:05:42	66.1	63	63
62	16:05:45	66.1	62	62
58.9	16:05:48	66.1	58.9	58.9
57.6	16:05:51	66.1	57.6	57.6
57.6	16:05:54	66.1	57.6	57.6
59.8	16:05:57	66.1	59.8	59.8
61.3	16:06:00	66.1	61.3	61.3
60.2	16:06:03	66.1	60.2	60.2
60.4	16:06:06	66.1	60.4	60.4
65.4	16:06:09	66.1	65.4	65.4
63.9	16:06:12	66.1	63.9	63.9
66	16:06:15	66.1	66	66
67.8	16:06:18	66.1	67.8	67.8
69.4	16:06:21	66.1	69.4	69.4
66.4	16:06:24	66.1	66.4	66.4
61.8	16:06:27	66.1	61.8	61.8
62.3	16:06:30	66.1	62.3	62.3
62.7	16:06:33	66.1	62.7	62.7
65.3	16:06:36	66.1	65.3	65.3
64	16:06:39	66.1	64	64
63.2	16:06:42	66.1	63.2	63.2
64.2	16:06:45	66.1	64.2	64.2
67.9	16:06:48	66.1	67.9	67.9
62.6	16:06:51	66.1	62.6	62.6
63	16:06:54	66.1	63	63
67.9	16:06:57	66.1	67.9	67.9
65.8	16:07:00	66.1	65.8	65.8
63.1	16:07:03	66.1	63.1	63.1
60.9	16:07:06	66.1	60.9	60.9
58.6	16:07:09	66.1	58.6	58.6

General Information

Serial Number	02509
Model	831
Firmware Version	2.112
Filename	831_Data.002
User	GT
Job Description	Barstow General Plan
Location	80 feet east of SR 247 Centerline
Measurement Description	
Start Time	Wednesday, 2014 May 14 15:43:26
Stop Time	Wednesday, 2014 May 14 15:59:26
Duration	00:16:00.6
Run Time	00:16:00.6
Pause	00:00:00.0
Pre Calibration	Wednesday, 2014 May 14 15:41:47
Post Calibration	None
Calibration Deviation	---

Note

Across street from Trinity Baptist Church
88F, 27.64 in Hg, 10% Hu., 8 mph wind, clear sky

Overall Data

LAeq		56.3	dB
LASmax	2014 May 14 15:55:04	75.0	dB
LApeak (max)	2014 May 14 15:55:03	87.1	dB
LASmin	2014 May 14 15:54:14	32.3	dB
LCeq		73.6	dB
LAeq		56.3	dB
LCeq - LAeq		17.2	dB
LAIeq		58.5	dB
LAeq		56.3	dB
LAIeq - LAeq		2.1	dB
Ldn		56.3	dB
LDay 07:00-23:00		56.3	dB
LNight 23:00-07:00		---	dB
Lden		56.3	dB
LDay 07:00-19:00		56.3	dB
LEvening 19:00-23:00		---	dB
LNight 23:00-07:00		---	dB
LAE		86.2	dB
# Overloads		0	
Overload Duration		0.0	s
# OBA Overloads		0	
OBA Overload Duration		0.0	s

Statistics

LAS5.00		62.5	dBA
LAS10.00		56.9	dBA
LAS33.30		47.0	dBA
LAS50.00		44.3	dBA
LAS66.60		41.7	dBA
LAS90.00		36.8	dBA
LAS > 65.0 dB (Exceedence Counts / Duration)		9 / 37.1	s
LAS > 85.0 dB (Exceedence Counts / Duration)		0 / 0.0	s
LApeak > 135.0 dB (Exceedence Counts / Duration)		0 / 0.0	s
LApeak > 137.0 dB (Exceedence Counts / Duration)		0 / 0.0	s
LApeak > 140.0 dB (Exceedence Counts / Duration)		0 / 0.0	s

Settings

RMS Weight	A Weighting	
Peak Weight	A Weighting	
Detector	Slow	
Preamp	PRM831	
Integration Method	Linear	
OBA Range	Normal	
OBA Bandwidth	1/1 and 1/3	
OBA Freq. Weighting	Z Weighting	
OBA Max Spectrum	Bin Max	
Gain	+0	dB
Under Range Limit	26.1	dB
Under Range Peak	75.3	dB
Noise Floor	17.0	dB
Overload	142.8	dB

1/1 Spectra

Freq. (Hz):	8.0	16.0	31.5	63.0	125	250	500	1k	2k	4k	8k	16k
LZeq	81.8	77.6	71.2	67.2	59.8	57.1	55.0	51.9	44.0	39.4	39.8	42.6
LZSmax	96.9	93.1	84.2	88.0	77.1	77.0	76.5	69.0	60.4	55.3	52.0	52.3
LZSmin	53.5	50.9	46.3	45.5	41.4	33.7	31.1	30.2	32.2	35.4	38.9	42.4

1/3 Spectra

Freq. (Hz):	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0	63.0	80.0
LZeq	78.1	77.2	75.8	74.6	72.7	70.5	68.2	66.3	63.9	60.9	62.3	63.7
LZSmax	91.5	93.4	91.8	91.2	87.9	86.1	82.2	79.9	76.3	72.9	85.1	87.3
LZSmin	48.7	46.7	47.7	43.7	45.7	41.6	41.6	40.7	41.2	40.9	39.8	38.2

Freq. (Hz):	100	125	160	200	250	315	400	500	630	800	1k	1.25k
LZeq	56.3	55.2	53.3	53.0	52.2	51.5	52.1	48.6	49.0	48.9	47.1	44.2
LZSmax	72.6	74.7	72.1	73.6	71.2	74.7	75.6	67.2	67.6	67.3	63.5	59.9
LZSmin	38.0	35.7	32.7	29.9	28.4	27.1	26.4	25.9	25.7	25.3	25.1	25.7

Freq. (Hz):	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	12.5k	16k	20k
LZeq	41.5	37.7	36.9	35.3	34.6	33.7	34.2	35.0	35.8	36.7	37.6	39.2
LZSmax	57.6	54.0	55.0	52.9	50.6	46.9	46.7	48.0	48.1	45.2	50.1	47.9
LZSmin	26.3	27.2	28.2	29.3	30.4	31.5	32.7	33.9	35.1	36.3	37.2	38.9

Calibration History

Preamp	Date	dB re. 1V/Pa
PRM831	14 May 2014 15:41:45	-25.3
PRM831	05 May 2014 14:04:40	-26.0
PRM831	16 Jan 2014 14:11:47	-25.9
PRM831	15 Jan 2014 12:49:05	-25.7
PRM831	10 Dec 2013 14:32:57	-25.6
PRM831	25 Oct 2013 11:25:03	-25.8
PRM831	14 Oct 2013 15:34:47	-25.6
PRM831	29 Aug 2013 13:41:41	-26.1
PRM831	22 Aug 2013 15:07:50	-25.8
PRM831	27 Jul 2013 17:53:07	-25.9
PRM831	27 Jul 2013 13:36:08	-25.6

General Information

Serial Number	02509
Model	831
Firmware Version	2.112
Filename	831_Data.003
User	GT
Job Description	Barstow General Plan
Location	60 feet south of Rimrock Rd CL _240 feet west of Lovato Ave CL
Measurement Description	
Start Time	Wednesday, 2014 May 14 16:05:25
Stop Time	Wednesday, 2014 May 14 16:23:25
Duration	00:18:00.3
Run Time	00:18:00.3
Pause	00:00:00.0
Pre Calibration	Wednesday, 2014 May 14 15:41:45
Post Calibration	None
Calibration Deviation	---

Note

88F, 27.64 in Hg, 10% Hu., 8 mph wind, clear sky

Overall Data

LAeq		64.4	dB
LASmax	2014 May 14 16:14:08	75.5	dB
LApeak (max)	2014 May 14 16:10:00	92.0	dB
LASmin	2014 May 14 16:17:41	36.1	dB
LCeq		71.5	dB
LAeq		64.4	dB
LCeq - LAeq		7.1	dB
LAIeq		66.4	dB
LAeq		64.4	dB
LAIeq - LAeq		2.0	dB
Ldn		64.4	dB
LDay 07:00-23:00		64.4	dB
LNight 23:00-07:00		---	dB
Lden		64.4	dB
LDay 07:00-19:00		64.4	dB
LEvening 19:00-23:00		---	dB
LNight 23:00-07:00		---	dB
LAE		94.8	dB
# Overloads		0	
Overload Duration		0.0	s
# OBA Overloads		0	
OBA Overload Duration		0.0	s

Statistics

LAS5.00	70.3	dBA
LAS10.00	68.9	dBA
LAS33.30	64.1	dBA
LAS50.00	59.8	dBA
LAS66.60	55.4	dBA
LAS90.00	44.9	dBA
LAS > 65.0 dB (Exceedence Counts / Duration)	64 / 382.7	s
LAS > 85.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LApeak > 135.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LApeak > 137.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LApeak > 140.0 dB (Exceedence Counts / Duration)	0 / 0.0	s

Settings

RMS Weight	A Weighting	
Peak Weight	A Weighting	
Detector	Slow	
Preamp	PRM831	
Integration Method	Linear	
OBA Range	Normal	
OBA Bandwidth	1/1 and 1/3	
OBA Freq. Weighting	Z Weighting	
OBA Max Spectrum	Bin Max	
Gain	+0	dB
Under Range Limit	26.1	dB
Under Range Peak	75.3	dB
Noise Floor	17.0	dB
Overload	142.8	dB

1/1 Spectra

Freq. (Hz):	8.0	16.0	31.5	63.0	125	250	500	1k	2k	4k	8k	16k
LZeq	76.3	70.9	64.7	63.5	66.1	62.1	61.4	61.6	53.6	42.5	40.1	42.7
LZSmax	90.3	85.5	82.8	81.1	87.5	76.0	73.5	73.4	65.1	57.9	56.5	53.7
LZSmin	55.2	51.3	48.6	47.0	43.0	37.7	34.4	32.3	32.3	35.4	38.9	42.0

1/3 Spectra

Freq. (Hz):	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0	63.0	80.0
LZeq	73.1	71.2	69.8	67.9	65.8	63.7	61.7	59.5	57.5	58.1	58.1	59.7
LZSmax	88.3	84.8	85.9	82.5	81.2	80.4	80.8	78.0	73.4	75.7	75.5	80.2
LZSmin	49.8	48.8	47.2	44.8	47.0	44.7	42.9	41.5	42.1	41.9	40.2	41.0

Freq. (Hz):	100	125	160	200	250	315	400	500	630	800	1k	1.25k
LZeq	59.0	62.2	62.1	58.3	57.8	55.6	55.6	56.6	57.7	58.0	57.4	54.8
LZSmax	79.1	85.4	83.9	72.6	73.0	67.8	67.4	69.5	69.9	70.4	69.5	66.6
LZSmin	38.2	38.4	35.6	34.3	32.5	29.9	29.0	29.1	28.3	27.9	27.1	26.3

Freq. (Hz):	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	12.5k	16k	20k
LZeq	51.9	47.3	42.4	39.7	37.1	35.1	34.6	35.3	36.2	36.9	37.6	39.2
LZSmax	63.4	59.2	54.4	53.2	53.4	52.6	50.5	51.7	53.3	50.2	49.2	45.8
LZSmin	26.4	27.3	28.3	29.4	30.5	31.5	32.7	32.9	35.2	35.7	37.2	38.0

Calibration History

Preamp	Date	dB re. 1V/Pa
PRM831	14 May 2014 15:41:45	-25.3
PRM831	05 May 2014 14:04:40	-26.0
PRM831	16 Jan 2014 14:11:47	-25.9
PRM831	15 Jan 2014 12:49:05	-25.7
PRM831	10 Dec 2013 14:32:57	-25.6
PRM831	25 Oct 2013 11:25:03	-25.8
PRM831	14 Oct 2013 15:34:47	-25.6
PRM831	29 Aug 2013 13:41:41	-26.1
PRM831	22 Aug 2013 15:07:50	-25.8
PRM831	27 Jul 2013 17:53:07	-25.9
PRM831	27 Jul 2013 13:36:08	-25.6

General Information

Serial Number	02509
Model	831
Firmware Version	2.112
Filename	831_Data.001
User	GT
Job Description	Barstow General Plan
Location	70' south of Rimrock Rd and south of Donald Stringham Mamorial Pa
Measurement Description	
Start Time	Thursday, 2014 May 15 16:09:07
Stop Time	Thursday, 2014 May 15 16:25:08
Duration	00:16:00.6
Run Time	00:16:00.6
Pause	00:00:00.0
Pre Calibration	Thursday, 2014 May 15 16:06:24
Post Calibration	None
Calibration Deviation	---

Note

98F, 27.55 in Hg, 12% Hu, 2 mph wind, clear sky

Overall Data

LAeq		55.1	dB
LASmax	2014 May 15 16:23:48	69.8	dB
LApeak (max)	2014 May 15 16:10:03	83.6	dB
LASmin	2014 May 15 16:13:13	34.7	dB
LCeq		65.5	dB
LAeq		55.1	dB
LCeq - LAeq		10.4	dB
LAIeq		56.9	dB
LAeq		55.1	dB
LAIeq - LAeq		1.7	dB
Ldn		55.1	dB
LDay 07:00-23:00		55.1	dB
LNight 23:00-07:00		---	dB
Lden		55.1	dB
LDay 07:00-19:00		55.1	dB
LEvening 19:00-23:00		---	dB
LNight 23:00-07:00		---	dB
LAE		85.0	dB
# Overloads		0	
Overload Duration		0.0	s
# OBA Overloads		0	
OBA Overload Duration		0.0	s

Statistics

LAS5.00	62.3	dBA
LAS10.00	60.0	dBA
LAS33.30	51.8	dBA
LAS50.00	46.9	dBA
LAS66.60	42.9	dBA
LAS90.00	38.1	dBA
LAS > 65.0 dB (Exceedence Counts / Duration)	6 / 15.9	s
LAS > 85.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LApeak > 135.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LApeak > 137.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LApeak > 140.0 dB (Exceedence Counts / Duration)	0 / 0.0	s

Settings

RMS Weight	A Weighting	
Peak Weight	A Weighting	
Detector	Slow	
Preamp	PRM831	
Integration Method	Linear	
OBA Range	Normal	
OBA Bandwidth	1/1 and 1/3	
OBA Freq. Weighting	Z Weighting	
OBA Max Spectrum	Bin Max	
Gain	+0	dB
Under Range Limit	26.2	dB
Under Range Peak	75.7	dB
Noise Floor	17.0	dB
Overload	143.3	dB

1/1 Spectra

Freq. (Hz):	8.0	16.0	31.5	63.0	125	250	500	1k	2k	4k	8k	16k
LZeq	59.1	56.5	55.7	62.2	61.4	54.4	52.3	51.2	45.9	38.4	39.7	43.1
LZSmax	75.1	72.6	72.5	80.3	81.0	68.9	69.0	65.8	60.6	52.5	43.4	44.4
LZSmin	45.2	47.0	45.6	46.4	44.6	37.4	33.4	31.3	32.6	35.8	39.3	42.9

1/3 Spectra

Freq. (Hz):	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0	63.0	80.0
LZeq	56.3	53.9	52.6	51.8	51.3	52.2	50.7	50.4	51.6	55.1	58.9	57.5
LZSmax	73.6	69.4	68.2	65.8	66.7	70.9	65.8	67.5	67.8	75.7	80.0	75.1
LZSmin	35.2	38.8	38.5	39.7	40.6	41.1	39.7	39.6	39.0	40.3	40.4	40.4

Freq. (Hz):	100	125	160	200	250	315	400	500	630	800	1k	1.25k
LZeq	59.2	55.9	51.8	50.4	49.4	48.8	48.0	47.4	47.0	47.1	46.7	45.2
LZSmax	80.9	75.2	68.1	66.6	64.2	66.2	66.5	64.7	64.7	62.1	61.4	59.3
LZSmin	39.0	39.7	36.4	34.9	32.5	29.6	28.7	28.5	27.7	26.9	25.9	26.0

Freq. (Hz):	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	12.5k	16k	20k
LZeq	43.9	39.9	36.6	34.4	33.2	33.0	33.7	34.8	36.1	37.1	37.9	39.7
LZSmax	58.8	54.5	52.1	50.1	47.8	43.7	39.7	38.1	37.4	37.7	41.2	39.9
LZSmin	26.6	27.6	28.6	29.6	30.8	31.9	33.1	34.4	35.5	36.8	37.7	39.4

Calibration History

Preamp	Date	dB re. 1V/Pa
PRM831	15 May 2014 16:06:19	-25.8
PRM831	14 May 2014 15:41:45	-25.3
PRM831	05 May 2014 14:04:40	-26.0
PRM831	16 Jan 2014 14:11:47	-25.9
PRM831	15 Jan 2014 12:49:05	-25.7
PRM831	10 Dec 2013 14:32:57	-25.6
PRM831	25 Oct 2013 11:25:03	-25.8
PRM831	14 Oct 2013 15:34:47	-25.6
PRM831	29 Aug 2013 13:41:41	-26.1
PRM831	22 Aug 2013 15:07:50	-25.8
PRM831	27 Jul 2013 17:53:07	-25.9

General Information

Serial Number	02509
Model	831
Firmware Version	2.112
Filename	831_Data.002
User	GT
Job Description	Barstow General Plan
Location	75 feet west of Jasper Rd CL and 75 feet south of Agate Rd CL
Measurement Description	
Start Time	Thursday, 2014 May 15 17:10:53
Stop Time	Thursday, 2014 May 15 17:25:54
Duration	00:15:00.7
Run Time	00:15:00.7
Pause	00:00:00.0
Pre Calibration	Thursday, 2014 May 15 16:06:19
Post Calibration	None
Calibration Deviation	---

Note

280 feet west of SR 58 CL. Noise primarily from SR 58
98F, 27.55 in Hg, 12% Hu, 2 mph wind, clear sky

Overall Data

LAeq		58.6	dB
LASmax	2014 May 15 17:17:04	69.0	dB
LApeak (max)	2014 May 15 17:22:31	87.4	dB
LASmin	2014 May 15 17:15:39	37.0	dB
LCeq		71.4	dB
LAeq		58.6	dB
LCeq - LAeq		12.8	dB
LAIeq		59.9	dB
LAeq		58.6	dB
LAIeq - LAeq		1.3	dB
Ldn		58.6	dB
LDay 07:00-23:00		58.6	dB
LNight 23:00-07:00		---	dB
Lden		58.6	dB
LDay 07:00-19:00		58.6	dB
LEvening 19:00-23:00		---	dB
LNight 23:00-07:00		---	dB
LAE		88.2	dB
# Overloads		0	
Overload Duration		0.0	s
# OBA Overloads		0	
OBA Overload Duration		0.0	s

Statistics

LAS5.00	64.7	dBA
LAS10.00	63.3	dBA
LAS33.30	57.6	dBA
LAS50.00	53.4	dBA
LAS66.60	49.2	dBA
LAS90.00	43.0	dBA

LAS > 65.0 dB (Exceedence Counts / Duration)	7 / 64.2	s
LAS > 85.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LApeak > 135.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LApeak > 137.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LApeak > 140.0 dB (Exceedence Counts / Duration)	0 / 0.0	s

Settings

RMS Weight	A Weighting	
Peak Weight	A Weighting	
Detector	Slow	
Preamp	PRM831	
Integration Method	Linear	
OBA Range	Normal	
OBA Bandwidth	1/1 and 1/3	
OBA Freq. Weighting	Z Weighting	
OBA Max Spectrum	Bin Max	
Gain	+0	dB
Under Range Limit	26.2	dB
Under Range Peak	75.7	dB
Noise Floor	17.0	dB
Overload	143.3	dB

1/1 Spectra

Freq. (Hz):	8.0	16.0	31.5	63.0	125	250	500	1k	2k	4k	8k	16k
LZeq	67.1	66.4	63.8	68.9	66.1	58.4	56.6	54.7	44.4	38.0	39.7	43.1
LZSmax	84.1	79.0	73.0	84.8	83.8	70.6	67.9	65.3	55.4	53.9	41.8	43.4
LZSmin	46.1	53.2	52.0	50.5	46.8	37.8	33.7	33.7	32.9	35.8	39.3	42.9

1/3 Spectra

Freq. (Hz):	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0	63.0	80.0
LZeq	63.3	62.8	60.7	60.8	62.0	62.0	60.3	57.9	58.8	62.0	65.1	64.7
LZSmax	80.4	81.8	77.3	75.9	75.2	75.3	71.6	69.1	70.1	76.0	83.4	82.4
LZSmin	32.9	38.7	38.2	43.0	46.0	48.1	46.2	44.9	47.6	45.3	46.2	44.6

Freq. (Hz):	100	125	160	200	250	315	400	500	630	800	1k	1.25k
LZeq	62.9	62.5	58.1	56.0	52.3	51.0	51.1	52.4	51.9	51.7	50.5	45.5
LZSmax	82.1	81.3	72.9	69.9	65.9	63.9	61.5	65.6	65.0	61.7	62.8	55.3
LZSmin	43.4	41.3	37.9	34.7	31.0	31.2	29.0	28.7	29.1	29.9	29.0	27.3

Freq. (Hz):	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	12.5k	16k	20k
LZeq	42.3	38.0	35.9	33.8	33.0	32.7	33.6	34.7	36.1	37.1	37.9	39.7
LZSmax	53.5	49.2	52.1	51.0	49.8	42.6	37.7	36.6	37.1	37.8	38.3	39.9
LZSmin	27.2	27.7	28.7	29.7	30.8	32.0	33.2	34.4	35.6	36.7	37.7	39.4

Calibration History

Preamp	Date	dB re. 1V/Pa
PRM831	15 May 2014 16:06:19	-25.8
PRM831	14 May 2014 15:41:45	-25.3
PRM831	05 May 2014 14:04:40	-26.0
PRM831	16 Jan 2014 14:11:47	-25.9
PRM831	15 Jan 2014 12:49:05	-25.7
PRM831	10 Dec 2013 14:32:57	-25.6
PRM831	25 Oct 2013 11:25:03	-25.8
PRM831	14 Oct 2013 15:34:47	-25.6
PRM831	29 Aug 2013 13:41:41	-26.1
PRM831	22 Aug 2013 15:07:50	-25.8
PRM831	27 Jul 2013 17:53:07	-25.9

General Information

Serial Number	02509
Model	831
Firmware Version	2.112
Filename	831_Data.003
User	GT
Job Description	Barstow General Plan
Location	75 feet SE of W Main St and 70 feet SW of Country Club Dr
Measurement Description	
Start Time	Thursday, 2014 May 15 17:36:25
Stop Time	Thursday, 2014 May 15 17:51:26
Duration	00:15:00.7
Run Time	00:15:00.7
Pause	00:00:00.0
Pre Calibration	Thursday, 2014 May 15 16:06:19
Post Calibration	None
Calibration Deviation	---

Note

Approximately 2,000 feet SE of BNSF Railroad and train passby during noise measurement that was audible. Noise primarily from W Main St (National Trails Hwy)
94F, 27.50 in Hg, 10% Hu, 3 mph wind, clear sky

Overall Data

LAeq		62.3	dB
LASmax	2014 May 15 17:50:35	72.5	dB
LApeak (max)	2014 May 15 17:38:25	89.4	dB
LASmin	2014 May 15 17:44:14	26.2	dB
LCeq		70.2	dB
LAeq		62.3	dB
LCeq - LAeq		7.9	dB
LAIeq		63.9	dB
LAeq		62.3	dB
LAIeq - LAeq		1.6	dB
Ldn		62.3	dB
LDay 07:00-23:00		62.3	dB
LNight 23:00-07:00		---	dB
Lden		62.3	dB
LDay 07:00-19:00		62.3	dB
LEvening 19:00-23:00		---	dB
LNight 23:00-07:00		---	dB
LAE		91.8	dB
# Overloads		0	
Overload Duration		0.0	s
# OBA Overloads		0	
OBA Overload Duration		0.0	s

Statistics

LAS5.00	69.4	dBA
LAS10.00	67.9	dBA
LAS33.30	59.2	dBA
LAS50.00	53.6	dBA
LAS66.60	49.4	dBA
LAS90.00	38.4	dBA
LAS > 65.0 dB (Exceedence Counts / Duration)	39 / 200.8	s
LAS > 85.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LApeak > 135.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LApeak > 137.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LApeak > 140.0 dB (Exceedence Counts / Duration)	0 / 0.0	s

Settings

RMS Weight	A Weighting	
Peak Weight	A Weighting	
Detector	Slow	
Preamp	PRM831	
Integration Method	Linear	
OBA Range	Normal	
OBA Bandwidth	1/1 and 1/3	
OBA Freq. Weighting	Z Weighting	
OBA Max Spectrum	Bin Max	
Gain	+0	dB
Under Range Limit	26.2	dB
Under Range Peak	75.7	dB
Noise Floor	17.0	dB
Overload	143.3	dB

1/1 Spectra

Freq. (Hz):	8.0	16.0	31.5	63.0	125	250	500	1k	2k	4k	8k	16k
LZeq	57.4	57.9	60.7	65.0	66.5	60.3	58.0	59.8	51.5	42.3	40.1	43.1
LZSmax	77.1	72.1	72.8	81.0	81.9	79.7	72.9	70.6	63.0	55.1	44.2	45.0
LZSmin	41.0	43.1	40.0	40.5	36.8	30.6	28.2	30.2	32.9	35.9	39.6	42.5

1/3 Spectra

Freq. (Hz):	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0	63.0	80.0
LZeq	54.3	54.4	51.5	51.2	53.0	54.6	56.2	54.7	56.9	58.6	58.1	62.4
LZSmax	74.4	76.5	75.0	73.2	67.0	70.2	68.0	68.8	71.8	73.4	72.8	80.1
LZSmin	34.1	31.8	33.6	34.9	36.6	38.0	37.5	35.2	33.7	34.7	36.3	34.0

Freq. (Hz):	100	125	160	200	250	315	400	500	630	800	1k	1.25k
LZeq	63.9	61.8	56.9	56.0	56.2	53.9	53.0	52.7	53.9	55.6	55.9	53.2
LZSmax	80.7	81.3	74.7	74.8	77.5	70.8	71.5	66.3	66.7	67.8	66.1	65.6
LZSmin	32.3	31.0	28.9	27.4	24.8	23.3	22.8	23.2	23.9	24.5	25.1	25.8

Freq. (Hz):	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	12.5k	16k	20k
LZeq	49.8	44.8	41.5	39.6	37.0	34.8	34.4	35.1	36.4	37.0	38.0	39.8
LZSmax	61.9	55.9	53.3	53.6	48.7	43.3	41.4	38.7	39.4	41.6	39.0	40.0
LZSmin	27.0	27.9	28.8	30.0	31.0	31.3	33.2	34.5	36.0	36.4	35.8	39.4

Calibration History

Preamp	Date	dB re. 1V/Pa
PRM831	15 May 2014 16:06:19	-25.8
PRM831	14 May 2014 15:41:45	-25.3
PRM831	05 May 2014 14:04:40	-26.0
PRM831	16 Jan 2014 14:11:47	-25.9
PRM831	15 Jan 2014 12:49:05	-25.7
PRM831	10 Dec 2013 14:32:57	-25.6
PRM831	25 Oct 2013 11:25:03	-25.8
PRM831	14 Oct 2013 15:34:47	-25.6
PRM831	29 Aug 2013 13:41:41	-26.1
PRM831	22 Aug 2013 15:07:50	-25.8
PRM831	27 Jul 2013 17:53:07	-25.9

General Information

Serial Number	02509
Model	831
Firmware Version	2.112
Filename	831_Data.004
User	GT
Job Description	Barstow General Plan
Location	On Buckboard Rd, approx. 700 feet north of Sidewinder Rd

Measurement Description	
Start Time	Thursday, 2014 May 15 18:03:34
Stop Time	Thursday, 2014 May 15 18:18:34
Duration	00:15:00.6
Run Time	00:15:00.6
Pause	00:00:00.0
Pre Calibration	Thursday, 2014 May 15 16:06:19
Post Calibration	None
Calibration Deviation	---

Note

Noise primarily from I-15 located 1,200 feet to east. Location near SE corner of proposed LDR use.
94F, 27.50 in Hg, 10% Hu, 3 mph wind, clear sky

Overall Data

LAeq		41.0	dB
LASmax	2014 May 15 18:03:56	50.3	dB
LApeak (max)	2014 May 15 18:03:56	79.9	dB
LASmin	2014 May 15 18:14:09	34.7	dB
LCeq		61.7	dB
LAeq		41.0	dB
LCeq - LAeq		20.7	dB
LAIeq		45.0	dB
LAeq		41.0	dB
LAIeq - LAeq		4.0	dB
Ldn		41.0	dB
LDay 07:00-23:00		41.0	dB
LNight 23:00-07:00		---	dB
Lden		41.0	dB
LDay 07:00-19:00		41.0	dB
LEvening 19:00-23:00		---	dB
LNight 23:00-07:00		---	dB
LAE		70.6	dB
# Overloads		0	
Overload Duration		0.0	s
# OBA Overloads		0	
OBA Overload Duration		0.0	s

Statistics

LAS5.00	45.1	dBA
LAS10.00	44.2	dBA
LAS33.30	40.8	dBA
LAS50.00	39.8	dBA
LAS66.60	38.6	dBA
LAS90.00	36.8	dBA

LAS > 65.0 dB (Exceedence Counts / Duration)	0 /	0.0	s
LAS > 85.0 dB (Exceedence Counts / Duration)	0 /	0.0	s
LApeak > 135.0 dB (Exceedence Counts / Duration)	0 /	0.0	s
LApeak > 137.0 dB (Exceedence Counts / Duration)	0 /	0.0	s
LApeak > 140.0 dB (Exceedence Counts / Duration)	0 /	0.0	s

Settings

RMS Weight	A Weighting	
Peak Weight	A Weighting	
Detector	Slow	
Preamp	PRM831	
Integration Method	Linear	
OBA Range	Normal	
OBA Bandwidth	1/1 and 1/3	
OBA Freq. Weighting	Z Weighting	
OBA Max Spectrum	Bin Max	
Gain	+0	dB

Under Range Limit	26.2	dB
Under Range Peak	75.7	dB
Noise Floor	17.0	dB
Overload	143.3	dB

1/1 Spectra

Freq. (Hz):	8.0	16.0	31.5	63.0	125	250	500	1k	2k	4k	8k	16k
LZeq	69.5	64.5	59.5	56.7	50.9	42.8	38.2	35.2	34.6	36.5	39.7	43.1
LZSmax	79.6	73.6	66.3	63.6	58.8	52.6	46.4	44.7	45.8	44.3	40.3	43.3
LZSmin	53.9	54.9	52.7	49.2	44.1	35.8	31.9	31.3	32.8	35.9	39.2	42.6

1/3 Spectra

Freq. (Hz):	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0	63.0	80.0
LZeq	66.2	64.6	62.7	60.7	59.9	58.3	56.4	54.2	52.8	51.7	52.0	52.0
LZSmax	77.9	75.9	72.8	70.8	71.9	67.6	64.9	62.0	59.6	59.6	59.3	62.6
LZSmin	49.1	46.2	47.1	45.4	47.4	42.7	48.0	46.4	46.2	44.3	42.6	42.8

Freq. (Hz):	100	125	160	200	250	315	400	500	630	800	1k	1.25k
LZeq	47.7	46.1	43.3	40.2	37.1	35.1	34.1	33.9	31.7	31.3	30.5	29.2
LZSmax	56.8	54.6	54.6	49.1	47.3	47.4	44.3	44.1	40.4	38.4	41.1	40.6
LZSmin	37.7	38.1	35.3	29.5	30.0	27.9	26.9	26.8	26.6	26.7	26.3	25.5

Freq. (Hz):	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	12.5k	16k	20k
LZeq	29.2	29.9	30.4	31.0	31.6	32.5	33.6	34.8	36.2	37.0	38.0	39.8
LZSmax	41.7	41.9	41.5	41.4	39.7	36.8	35.2	35.1	36.6	37.3	38.2	40.0
LZSmin	26.7	27.6	28.6	26.5	30.9	30.7	33.1	34.2	35.4	36.0	37.5	39.3

Calibration History

Preamp	Date	dB re. 1V/Pa
PRM831	15 May 2014 16:06:19	-25.8
PRM831	14 May 2014 15:41:45	-25.3
PRM831	05 May 2014 14:04:40	-26.0
PRM831	16 Jan 2014 14:11:47	-25.9
PRM831	15 Jan 2014 12:49:05	-25.7
PRM831	10 Dec 2013 14:32:57	-25.6
PRM831	25 Oct 2013 11:25:03	-25.8
PRM831	14 Oct 2013 15:34:47	-25.6
PRM831	29 Aug 2013 13:41:41	-26.1
PRM831	22 Aug 2013 15:07:50	-25.8
PRM831	27 Jul 2013 17:53:07	-25.9

General Information

Serial Number	02509
Model	831
Firmware Version	2.112
Filename	831_Data.005
User	GT
Job Description	Barstow General Plan
Location	120 feet east of Lenwood Rd and 420 feet east of Tanger Outlet Ce

Measurement Description	
Start Time	Thursday, 2014 May 15 18:27:52
Stop Time	Thursday, 2014 May 15 18:43:53
Duration	00:16:00.6
Run Time	00:16:00.6
Pause	00:00:00.0
Pre Calibration	Thursday, 2014 May 15 16:06:19
Post Calibration	None
Calibration Deviation	---

Note

Noise primarily from traffic on Lenwood Rd and I-15 approx 1,200 feet to west.
94F, 27.50 in Hg, 10% Hu, 3 mph wind, clear sky

Overall Data

LAeq		50.4	dB
LASmax	2014 May 15 18:43:43	59.6	dB
LApeak (max)	2014 May 15 18:29:29	78.6	dB
LASmin	2014 May 15 18:28:41	45.7	dB
LCeq		66.6	dB
LAeq		50.4	dB
LCeq - LAeq		16.3	dB
LAIeq		51.8	dB
LAeq		50.4	dB
LAIeq - LAeq		1.5	dB
Ldn		50.4	dB
LDay 07:00-23:00		50.4	dB
LNight 23:00-07:00		---	dB
Lden		50.4	dB
LDay 07:00-19:00		50.4	dB
LEvening 19:00-23:00		---	dB
LNight 23:00-07:00		---	dB
LAE		80.2	dB
# Overloads		0	
Overload Duration		0.0	s
# OBA Overloads		0	
OBA Overload Duration		0.0	s

Statistics

LAS5.00	54.6	dBA
LAS10.00	53.0	dBA
LAS33.30	49.9	dBA
LAS50.00	49.1	dBA
LAS66.60	48.3	dBA
LAS90.00	47.1	dBA

LAS > 65.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LAS > 85.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LApeak > 135.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LApeak > 137.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LApeak > 140.0 dB (Exceedence Counts / Duration)	0 / 0.0	s

Settings

RMS Weight	A Weighting	
Peak Weight	A Weighting	
Detector	Slow	
Preamp	PRM831	
Integration Method	Linear	
OBA Range	Normal	
OBA Bandwidth	1/1 and 1/3	
OBA Freq. Weighting	Z Weighting	
OBA Max Spectrum	Bin Max	
Gain	+0	dB
Under Range Limit	26.2	dB
Under Range Peak	75.7	dB
Noise Floor	17.0	dB
Overload	143.3	dB

1/1 Spectra

Freq. (Hz):	8.0	16.0	31.5	63.0	125	250	500	1k	2k	4k	8k	16k
LZeq	62.4	62.6	62.8	64.8	57.9	52.6	47.6	45.4	37.4	36.8	39.7	43.1
LZSmax	75.9	75.3	68.0	74.6	74.3	65.0	57.5	56.0	47.5	51.9	40.7	43.3
LZSmin	49.4	54.7	54.7	60.5	54.2	47.5	42.0	38.6	34.0	35.5	39.4	43.0

1/3 Spectra

Freq. (Hz):	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0	63.0	80.0
LZeq	59.3	57.8	56.0	57.2	58.6	57.6	56.1	57.8	59.3	60.3	59.8	59.9
LZSmax	78.9	79.1	67.7	71.7	72.1	67.6	64.7	66.7	66.4	74.6	65.7	65.2
LZSmin	38.6	41.6	43.7	45.9	49.4	49.7	49.5	52.2	51.7	55.2	55.0	54.1

Freq. (Hz):	100	125	160	200	250	315	400	500	630	800	1k	1.25k
LZeq	54.4	53.5	51.1	49.5	47.7	45.6	43.3	42.8	42.4	42.1	40.8	37.7
LZSmax	71.4	72.4	58.5	63.1	58.7	58.0	55.7	51.8	54.4	52.7	51.0	50.5
LZSmin	48.9	48.7	47.2	43.7	42.3	38.4	37.2	36.7	36.2	34.9	33.7	31.4

Freq. (Hz):	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	12.5k	16k	20k
LZeq	34.6	31.3	30.8	31.7	32.0	32.5	33.5	34.7	36.2	37.0	38.0	39.8
LZSmax	45.7	43.2	41.8	50.0	47.3	37.1	35.6	35.5	36.9	38.2	38.8	40.2
LZSmin	29.4	28.5	28.9	29.9	30.9	31.2	33.2	33.8	35.9	36.8	37.7	39.6

Calibration History

Preamp	Date	dB re. 1V/Pa
PRM831	15 May 2014 16:06:19	-25.8
PRM831	14 May 2014 15:41:45	-25.3
PRM831	05 May 2014 14:04:40	-26.0
PRM831	16 Jan 2014 14:11:47	-25.9
PRM831	15 Jan 2014 12:49:05	-25.7
PRM831	10 Dec 2013 14:32:57	-25.6
PRM831	25 Oct 2013 11:25:03	-25.8
PRM831	14 Oct 2013 15:34:47	-25.6
PRM831	29 Aug 2013 13:41:41	-26.1
PRM831	22 Aug 2013 15:07:50	-25.8
PRM831	27 Jul 2013 17:53:07	-25.9

General Information

Serial Number	02509
Model	831
Firmware Version	2.112
Filename	831_Data.006
User	GT
Job Description	Barstow General Plan
Location	Approx 200 feet north of end of Commerce Pkwy and 500 feet west o
Measurement Description	
Start Time	Thursday, 2014 May 15 18:51:57
Stop Time	Thursday, 2014 May 15 19:06:57
Duration	00:15:00.5
Run Time	00:15:00.5
Pause	00:00:00.0
Pre Calibration	Thursday, 2014 May 15 16:06:19
Post Calibration	None
Calibration Deviation	---

Note

Approx 200 feet north of Days Inn. Noise primarily from I-15
94F, 27.50 in Hg, 10% Hu, 3 mph wind, clear sky

Overall Data

LAeq		52.5	dB
LASmax	2014 May 15 19:05:59	62.1	dB
LApeak (max)	2014 May 15 19:01:12	78.9	dB
LASmin	2014 May 15 18:54:59	45.0	dB
LCeq		68.9	dB
LAeq		52.5	dB
LCeq - LAeq		16.3	dB
LAIeq		53.7	dB
LAeq		52.5	dB
LAIeq - LAeq		1.1	dB
Ldn		52.5	dB
LDay 07:00-23:00		52.5	dB
LNight 23:00-07:00		---	dB
Lden		54.6	dB
LDay 07:00-19:00		51.2	dB
LEvening 19:00-23:00		53.7	dB
LNight 23:00-07:00		---	dB
LAE		82.1	dB
# Overloads		0	
Overload Duration		0.0	s
# OBA Overloads		0	
OBA Overload Duration		0.0	s

Statistics

LAS5.00	56.4	dBA
LAS10.00	55.2	dBA
LAS33.30	52.5	dBA
LAS50.00	51.4	dBA
LAS66.60	50.1	dBA
LAS90.00	47.8	dBA

LAS > 65.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LAS > 85.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LApeak > 135.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LApeak > 137.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LApeak > 140.0 dB (Exceedence Counts / Duration)	0 / 0.0	s

Settings

RMS Weight	A Weighting	
Peak Weight	A Weighting	
Detector	Slow	
Preamp	PRM831	
Integration Method	Linear	
OBA Range	Normal	
OBA Bandwidth	1/1 and 1/3	
OBA Freq. Weighting	Z Weighting	
OBA Max Spectrum	Bin Max	
Gain	+0	dB
Under Range Limit	26.2	dB
Under Range Peak	75.7	dB
Noise Floor	17.0	dB
Overload	143.3	dB

1/1 Spectra

Freq. (Hz):	8.0	16.0	31.5	63.0	125	250	500	1k	2k	4k	8k	16k
LZeq	63.1	63.0	63.5	66.7	62.5	57.2	49.0	43.5	37.3	36.4	39.7	43.1
LZSmax	82.9	71.9	69.8	75.3	75.1	68.0	58.8	52.2	48.6	42.4	40.8	43.2
LZSmin	52.1	55.5	58.6	53.1	55.0	45.2	40.8	35.4	33.3	35.3	39.5	42.8

1/3 Spectra

Freq. (Hz):	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0	63.0	80.0
LZeq	59.8	58.3	57.3	57.3	58.7	58.6	56.9	58.7	60.1	62.7	62.7	60.5
LZSmax	73.6	74.6	76.1	73.5	66.9	70.8	65.7	67.2	68.6	67.9	74.6	71.5
LZSmin	46.0	45.3	46.4	48.6	49.4	49.1	49.9	53.3	53.9	56.8	53.6	52.7

Freq. (Hz):	100	125	160	200	250	315	400	500	630	800	1k	1.25k
LZeq	57.4	59.1	56.2	53.8	52.4	50.3	46.8	43.3	40.3	39.5	39.2	37.4
LZSmax	69.3	73.8	68.2	65.4	64.9	61.8	58.1	53.7	48.9	49.6	48.2	47.9
LZSmin	50.0	49.1	48.0	44.6	43.4	40.4	37.5	34.6	32.5	31.8	30.4	28.8

Freq. (Hz):	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	12.5k	16k	20k
LZeq	34.6	31.0	30.6	30.8	31.6	32.5	33.5	34.7	36.1	37.1	37.9	39.7
LZSmax	45.7	42.0	42.5	38.8	37.6	37.3	35.4	36.4	36.5	37.3	38.1	40.2
LZSmin	28.1	28.2	28.5	29.8	30.9	32.0	33.2	33.5	35.0	36.4	37.5	39.5

Calibration History

Preamp	Date	dB re. 1V/Pa
PRM831	15 May 2014 16:06:19	-25.8
PRM831	14 May 2014 15:41:45	-25.3
PRM831	05 May 2014 14:04:40	-26.0
PRM831	16 Jan 2014 14:11:47	-25.9
PRM831	15 Jan 2014 12:49:05	-25.7
PRM831	10 Dec 2013 14:32:57	-25.6
PRM831	25 Oct 2013 11:25:03	-25.8
PRM831	14 Oct 2013 15:34:47	-25.6
PRM831	29 Aug 2013 13:41:41	-26.1
PRM831	22 Aug 2013 15:07:50	-25.8
PRM831	27 Jul 2013 17:53:07	-25.9

APPENDIX C

FHWA Model Existing Noise Calculations

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

	Vehicle Mix 1 (Collector Secondary)				Vehicle Mix 2 (Arterial)				Vehicle Mix 3 (SR-247)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.42%	69.50%	12.90%	9.60%	92.00%	67.77%	13.89%	16.25%	97.90%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	0.70%	0.13%	0.35%	1.18%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	0.50%	0.05%	0.37%	0.92%

Road Name: Main Street **Segment: West City Limit to SR 58**

Average Daily Traffic: 8219 Vehicles Vehicle Speed: 55 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	72.73	-3.92	-4.43	-1.20	63.18	60.81	59.51	53.46	61.89	62.52	70 dBA:	**31**	**34**
Medium Trucks	79.85	-18.79	-4.43	-1.20	55.44	36.23	28.45	37.66	43.81	43.84	65 dBA:	**67**	**73**
Heavy Trucks	83.81	-16.57	-4.43	-1.20	61.62	44.63	36.85	46.06	52.21	52.24	60 dBA:	**144**	**158**
				Total:	**65.89**	**60.92**	**59.54**	**54.28**	**62.39**	**62.96**	55 dBA:	**311**	**340**

Road Name: Main Street **Segment: SR 58 to Woodham Avenue**

Average Daily Traffic: 6294 Vehicles Vehicle Speed: 55 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	72.73	-5.08	-4.43	-1.20	62.02	59.65	58.35	52.30	60.73	61.36	70 dBA:	**26**	**28**
Medium Trucks	79.85	-19.95	-4.43	-1.20	54.28	35.07	27.29	36.50	42.65	42.69	65 dBA:	**56**	**61**
Heavy Trucks	83.81	-17.73	-4.43	-1.20	60.46	43.47	35.69	44.90	51.05	51.08	60 dBA:	**121**	**132**
				Total:	**64.73**	**59.76**	**58.38**	**53.12**	**61.24**	**61.80**	55 dBA:	**260**	**284**

Road Name: Main Street **Segment: Woodham Avenue to L Street**

Average Daily Traffic: 7345 Vehicles Vehicle Speed: 55 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	72.73	-4.41	-4.43	-1.20	62.69	60.32	59.02	52.97	61.40	62.03	70 dBA:	**29**	**32**
Medium Trucks	79.85	-19.28	-4.43	-1.20	54.95	35.74	27.96	37.17	43.32	43.36	65 dBA:	**62**	**68**
Heavy Trucks	83.81	-17.06	-4.43	-1.20	61.13	44.14	36.36	45.57	51.72	51.76	60 dBA:	**134**	**146**
				Total:	**65.40**	**60.44**	**59.05**	**53.79**	**61.91**	**62.47**	55 dBA:	**289**	**315**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Main Street **Segment: L Street to Avenue H**

Average Daily Traffic: 10310 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-1.56	-4.43	-1.20	60.18	57.81	56.51	50.46	58.89	59.52	70 dBA:	**21**	**23**
Medium Trucks	76.31	-16.42	-4.43	-1.20	54.26	35.06	27.28	36.48	42.64	42.67	65 dBA:	**45**	**49**
Heavy Trucks	81.16	-14.20	-4.43	-1.20	61.33	44.34	36.56	45.77	51.92	51.96	60 dBA:	**97**	**105**
				Total:	**64.26**	**58.02**	**56.56**	**51.86**	**59.77**	**60.30**	55 dBA:	**208**	**226**

Road Name: Main Street **Segment: Avenue H to Avenue D**

Average Daily Traffic: 11652 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-1.02	-4.43	-1.20	60.71	58.34	57.04	50.99	59.42	60.05	70 dBA:	**23**	**24**
Medium Trucks	76.31	-15.89	-4.43	-1.20	54.80	35.59	27.81	37.01	43.17	43.20	65 dBA:	**49**	**53**
Heavy Trucks	81.16	-13.67	-4.43	-1.20	61.86	44.87	37.09	46.30	52.45	52.49	60 dBA:	**105**	**114**
				Total:	**64.79**	**58.55**	**57.09**	**52.39**	**60.30**	**60.83**	55 dBA:	**226**	**245**

Road Name: Main Street **Segment: Avenue D to Avenue A**

Average Daily Traffic: 11933 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-0.92	-4.43	-1.20	60.81	58.44	57.15	51.09	59.53	60.16	70 dBA:	**23**	**25**
Medium Trucks	76.31	-15.79	-4.43	-1.20	54.90	35.69	27.91	37.12	43.27	43.31	65 dBA:	**49**	**54**
Heavy Trucks	81.16	-13.57	-4.43	-1.20	61.97	44.98	37.19	46.40	52.56	52.59	60 dBA:	**106**	**115**
				Total:	**64.90**	**58.65**	**57.20**	**52.49**	**60.41**	**60.93**	55 dBA:	**229**	**249**

Road Name: Main Street **Segment: Avenue A to First Avenue**

Average Daily Traffic: 11559 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-0.48	-4.43	-1.20	59.01	56.63	55.34	49.29	57.72	58.35	70 dBA:	**18**	**19**
Medium Trucks	74.83	-15.35	-4.43	-1.20	53.86	34.65	26.87	36.08	42.23	42.26	65 dBA:	**39**	**42**
Heavy Trucks	80.05	-13.13	-4.43	-1.20	61.29	44.30	36.52	45.73	51.88	51.92	60 dBA:	**83**	**90**
				Total:	**63.78**	**56.91**	**55.40**	**51.01**	**58.82**	**59.32**	55 dBA:	**180**	**194**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Main Street **Segment: First Avenue to Barstow Road**
Average Daily Traffic: 12943 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	0.01	-4.43	-1.20	59.50	57.12	55.83	49.78	58.21	58.84	70 dBA:	**19**	**21**
Medium Trucks	74.83	-14.85	-4.43	-1.20	54.35	35.14	27.36	36.57	42.72	42.75	65 dBA:	**42**	**45**
Heavy Trucks	80.05	-12.64	-4.43	-1.20	61.78	44.79	37.01	46.22	52.38	52.41	60 dBA:	**90**	**97**
				Total:	**64.27**	**57.40**	**55.89**	**51.51**	**59.31**	**59.82**	55 dBA:	**194**	**209**

Road Name: Main Street **Segment: Barstow Road to Muriel Drive**
Average Daily Traffic: 11372 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-0.55	-4.43	-1.20	58.93	56.56	55.27	49.21	57.65	58.28	70 dBA:	**18**	**19**
Medium Trucks	74.83	-15.42	-4.43	-1.20	53.79	34.58	26.80	36.00	42.16	42.19	65 dBA:	**38**	**41**
Heavy Trucks	80.05	-13.20	-4.43	-1.20	61.22	44.23	36.45	45.66	51.81	51.85	60 dBA:	**83**	**89**
				Total:	**63.70**	**56.84**	**55.33**	**50.94**	**58.75**	**59.25**	55 dBA:	**178**	**192**

Road Name: Main Street **Segment: Muriel Drive to Yucca Avenue**
Average Daily Traffic: 12110 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-0.28	-4.43	-1.20	59.21	56.84	55.54	49.49	57.92	58.55	70 dBA:	**19**	**20**
Medium Trucks	74.83	-15.14	-4.43	-1.20	54.06	34.85	27.07	36.28	42.43	42.47	65 dBA:	**40**	**43**
Heavy Trucks	80.05	-12.92	-4.43	-1.20	61.50	44.51	36.72	45.93	52.09	52.12	60 dBA:	**86**	**93**
				Total:	**63.98**	**57.11**	**55.60**	**51.22**	**59.02**	**59.53**	55 dBA:	**185**	**200**

Road Name: Main Street **Segment: Yucca Avenue to Coolwater Lane**
Average Daily Traffic: 12839 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-0.60	-4.43	-1.20	61.13	58.76	57.47	51.41	59.84	60.47	70 dBA:	**24**	**26**
Medium Trucks	76.31	-15.47	-4.43	-1.20	55.22	36.01	28.23	37.44	43.59	43.62	65 dBA:	**52**	**56**
Heavy Trucks	81.16	-13.25	-4.43	-1.20	62.28	45.29	37.51	46.72	52.87	52.91	60 dBA:	**112**	**121**
				Total:	**65.21**	**58.97**	**57.51**	**52.81**	**60.72**	**61.25**	55 dBA:	**241**	**261**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Main Street **Segment: Coolwater Lane to I-15**
Average Daily Traffic: 14701 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-0.01	-4.43	-1.20	61.72	59.35	58.05	52.00	60.43	61.06	70 dBA:	**26**	**29**
Medium Trucks	76.31	-14.88	-4.43	-1.20	55.81	36.60	28.82	38.02	44.18	44.21	65 dBA:	**57**	**62**
Heavy Trucks	81.16	-12.66	-4.43	-1.20	62.87	45.88	38.10	47.31	53.46	53.50	60 dBA:	**122**	**133**
				Total:	**65.80**	**59.56**	**58.10**	**53.40**	**61.31**	**61.84**	55 dBA:	**263**	**286**

Road Name: Main Street **Segment: I-15 to I-40**
Average Daily Traffic: 12183 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-0.83	-4.43	-1.20	60.90	58.53	57.24	51.18	59.62	60.25	70 dBA:	**23**	**25**
Medium Trucks	76.31	-15.70	-4.43	-1.20	54.99	35.78	28.00	37.21	43.36	43.40	65 dBA:	**50**	**54**
Heavy Trucks	81.16	-13.48	-4.43	-1.20	62.06	45.07	37.28	46.49	52.65	52.68	60 dBA:	**108**	**117**
				Total:	**64.99**	**58.75**	**57.29**	**52.58**	**60.50**	**61.02**	55 dBA:	**232**	**252**

Road Name: Barstow Road **Segment: Main Street to Mountain View Street**
Average Daily Traffic: 8219 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 3 Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.69	-4.51	-1.20	57.71	55.23	54.36	50.27	57.78	58.29	70 dBA:	**15**	**17**
Medium Trucks	74.83	-20.88	-4.51	-1.20	48.24	25.89	24.50	24.19	30.84	31.10	65 dBA:	**33**	**36**
Heavy Trucks	80.05	-21.96	-4.51	-1.20	52.37	28.60	24.44	28.49	34.84	34.94	60 dBA:	**71**	**77**
				Total:	**59.19**	**55.24**	**54.37**	**50.31**	**57.81**	**58.31**	55 dBA:	**154**	**166**

Road Name: Barstow Road **Segment: Mountain View Street to Virginia Way**
Average Daily Traffic: 12454 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 3 Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	0.11	-4.51	-1.20	59.51	57.03	56.17	52.08	59.59	60.09	70 dBA:	**20**	**22**
Medium Trucks	74.83	-19.07	-4.51	-1.20	50.04	27.70	26.30	25.99	32.64	32.91	65 dBA:	**44**	**47**
Heavy Trucks	80.05	-20.16	-4.51	-1.20	54.18	30.41	26.24	30.29	36.64	36.75	60 dBA:	**94**	**102**
				Total:	**60.99**	**57.05**	**56.18**	**52.12**	**59.62**	**60.12**	55 dBA:	**203**	**219**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Barstow Road **Segment: Armory Road to Rimrock Road**
Average Daily Traffic: 9801 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 3 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.02	-4.43	-1.20	61.70	59.22	58.36	54.27	61.78	62.28	70 dBA:	**28**	**31**
Medium Trucks	77.62	-21.21	-4.43	-1.20	50.79	28.45	27.05	26.74	33.39	33.66	65 dBA:	**61**	**66**
Heavy Trucks	82.14	-22.29	-4.43	-1.20	54.23	30.46	26.29	30.34	36.69	36.80	60 dBA:	**132**	**142**
				Total:	**62.71**	**59.23**	**58.36**	**54.29**	**61.80**	**62.30**	55 dBA:	**284**	**307**

Road Name: Barstow Road **Segment: South of Rimrock Road**
Average Daily Traffic: 5909 Vehicles Vehicle Speed: 55 MPH Vehicle Mix: 3 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	72.73	-5.09	-4.43	-1.20	62.01	59.53	58.67	54.58	62.09	62.59	70 dBA:	**30**	**32**
Medium Trucks	79.85	-24.27	-4.43	-1.20	49.95	27.61	26.21	25.90	32.55	32.82	65 dBA:	**64**	**69**
Heavy Trucks	83.81	-25.36	-4.43	-1.20	52.83	29.06	24.90	28.95	35.29	35.40	60 dBA:	**138**	**149**
				Total:	**62.74**	**59.54**	**58.67**	**54.60**	**62.10**	**62.60**	55 dBA:	**297**	**321**

Road Name: Armory Road **Segment: Barstow Road to Eleventh Street**
Average Daily Traffic: 6794 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 1 Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-3.63	-4.51	-1.20	60.00	57.88	56.57	50.56	58.97	59.60	70 dBA:	**18**	**20**
Medium Trucks	77.62	-20.87	-4.51	-1.20	51.04	29.79	35.81	17.52	30.66	33.42	65 dBA:	**40**	**44**
Heavy Trucks	82.14	-24.82	-4.51	-1.20	51.61	26.26	22.86	27.50	33.70	33.80	60 dBA:	**86**	**94**
				Total:	**61.05**	**57.89**	**56.61**	**50.58**	**58.99**	**59.62**	55 dBA:	**185**	**203**

Road Name: Armory Road **Segment: Eleventh Street to Muriel Drive**
Average Daily Traffic: 7096 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 1 Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-3.44	-4.51	-1.20	60.19	58.07	56.76	50.74	59.16	59.79	70 dBA:	**19**	**21**
Medium Trucks	77.62	-20.68	-4.51	-1.20	51.23	29.98	36.00	17.71	30.85	33.61	65 dBA:	**41**	**45**
Heavy Trucks	82.14	-24.64	-4.51	-1.20	51.80	26.44	23.04	27.69	33.89	33.99	60 dBA:	**88**	**97**
				Total:	**61.24**	**58.08**	**56.79**	**50.77**	**59.18**	**59.81**	55 dBA:	**190**	**209**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Armory Road **Segment: Muriel Drive to Broadway Avenue**
Average Daily Traffic: 7283 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 1 Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-2.82	-4.51	-1.20	58.83	56.71	55.40	49.38	57.80	58.43	70 dBA:	**15**	**17**
Medium Trucks	76.31	-20.05	-4.51	-1.20	50.55	29.30	35.32	17.02	30.17	32.92	65 dBA:	**33**	**37**
Heavy Trucks	81.16	-24.01	-4.51	-1.20	51.44	26.09	22.69	27.34	33.53	33.63	60 dBA:	**72**	**79**
				Total:	**60.07**	**56.72**	**55.44**	**49.41**	**57.83**	**58.46**	55 dBA:	**154**	**170**

Road Name: Armory Road **Segment: Broadway Avenue to Higgins Road**
Average Daily Traffic: 4775 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 1 Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-4.65	-4.51	-1.20	57.00	54.88	53.56	47.55	55.97	56.60	70 dBA:	**12**	**13**
Medium Trucks	76.31	-21.89	-4.51	-1.20	48.71	27.46	33.48	15.19	28.34	31.09	65 dBA:	**25**	**28**
Heavy Trucks	81.16	-25.84	-4.51	-1.20	49.60	24.25	20.85	25.50	31.70	31.80	60 dBA:	**54**	**60**
				Total:	**58.24**	**54.89**	**53.61**	**47.58**	**55.99**	**56.62**	55 dBA:	**116**	**128**

Road Name: Armory Road **Segment: Higgins Road to Montara Road**
Average Daily Traffic: 4973 Vehicles Vehicle Speed: 25 MPH Vehicle Mix: 1 Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-2.43	-4.51	-1.20	51.30	49.17	47.86	41.85	50.27	50.89	70 dBA:	**5**	**5**
Medium Trucks	71.09	-19.67	-4.51	-1.20	45.71	24.46	30.48	12.18	25.33	28.08	65 dBA:	**11**	**12**
Heavy Trucks	78.74	-23.63	-4.51	-1.20	49.40	24.05	20.65	25.30	31.50	31.60	60 dBA:	**23**	**25**
				Total:	**54.14**	**49.20**	**47.95**	**41.95**	**50.34**	**50.97**	55 dBA:	**49**	**54**

Road Name: Montara Road **Segment: I-40 to Armory Road**
Average Daily Traffic: 1 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-41.69	-4.43	-1.20	20.05	17.67	16.38	10.33	18.76	19.39	70 dBA:	**0**	**0**
Medium Trucks	76.31	-56.55	-4.43	-1.20	14.13	-5.08	-12.86	-3.65	2.51	2.54	65 dBA:	**0**	**0**
Heavy Trucks	81.16	-54.34	-4.43	-1.20	21.20	4.21	-3.57	5.63	11.79	11.82	60 dBA:	**0**	**0**
				Total:	**24.13**	**17.89**	**16.43**	**11.72**	**19.64**	**20.17**	55 dBA:	**0**	**0**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Montara Road **Segment: Armory Road to Rimrock Road**
Average Daily Traffic: 5691 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-4.14	-4.43	-1.20	57.60	55.23	53.93	47.88	56.31	56.94	70 dBA:	**14**	**15**
Medium Trucks	76.31	-19.00	-4.43	-1.20	51.68	32.48	24.69	33.90	40.06	40.09	65 dBA:	**30**	**33**
Heavy Trucks	81.16	-16.78	-4.43	-1.20	58.75	41.76	33.98	43.19	49.34	49.37	60 dBA:	**65**	**70**
				Total:	**61.68**	**55.44**	**53.98**	**49.28**	**57.19**	**57.72**	55 dBA:	**140**	**152**

Road Name: Muriel Drive **Segment: North of Armory Road**
Average Daily Traffic: 8812 Vehicles Vehicle Speed: 25 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	0.05	-4.60	-1.20	53.69	51.57	50.25	44.24	52.66	53.29	70 dBA:	**7**	**8**
Medium Trucks	71.09	-17.19	-4.60	-1.20	48.10	26.85	32.87	14.58	27.72	30.47	65 dBA:	**15**	**17**
Heavy Trucks	78.74	-21.14	-4.60	-1.20	51.80	26.44	23.05	27.69	33.89	33.99	60 dBA:	**33**	**36**
				Total:	**56.53**	**51.59**	**50.34**	**44.34**	**52.73**	**53.36**	55 dBA:	**71**	**78**

Road Name: Muriel Drive **Segment: Armory Road to Rimrock Road**
Average Daily Traffic: 5098 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 1 Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-4.37	-4.51	-1.20	57.28	55.16	53.85	47.83	56.25	56.88	70 dBA:	**12**	**13**
Medium Trucks	76.31	-21.60	-4.51	-1.20	49.00	27.75	33.77	15.48	28.62	31.37	65 dBA:	**26**	**29**
Heavy Trucks	81.16	-25.56	-4.51	-1.20	49.89	24.54	21.14	25.79	31.99	32.08	60 dBA:	**56**	**62**
				Total:	**58.52**	**55.17**	**53.89**	**47.86**	**56.28**	**56.91**	55 dBA:	**122**	**134**

Road Name: Windy Pass **Segment: Barstow Road to Eleventh Street**
Average Daily Traffic: 1144 Vehicles Vehicle Speed: 25 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-8.81	-4.60	-1.20	44.82	42.70	41.39	35.38	43.79	44.42	70 dBA:	**2**	**2**
Medium Trucks	71.09	-26.05	-4.60	-1.20	39.23	17.98	24.00	5.71	18.85	21.61	65 dBA:	**4**	**4**
Heavy Trucks	78.74	-30.01	-4.60	-1.20	42.93	17.58	14.18	18.83	25.03	25.12	60 dBA:	**8**	**9**
				Total:	**47.66**	**42.73**	**41.47**	**35.47**	**43.87**	**44.49**	55 dBA:	**18**	**20**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Mountain View Street **Segment: East of Barstow Road**
Average Daily Traffic: 3069 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-5.99	-4.60	-1.20	53.32	51.19	49.88	43.87	52.29	52.92	70 dBA:	**7**	**7**
Medium Trucks	74.83	-23.23	-4.60	-1.20	45.80	24.55	30.57	12.28	25.42	28.17	65 dBA:	**14**	**16**
Heavy Trucks	80.05	-27.18	-4.60	-1.20	47.06	21.71	18.31	22.96	29.16	29.25	60 dBA:	**31**	**34**
				Total:	**54.82**	**51.21**	**49.94**	**43.91**	**52.32**	**52.95**	55 dBA:	**66**	**73**

Road Name: Mountain View Street **Segment: West of Barstow Road**
Average Daily Traffic: 4578 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-4.25	-4.60	-1.20	55.05	52.93	51.62	45.61	54.03	54.65	70 dBA:	**9**	**10**
Medium Trucks	74.83	-21.49	-4.60	-1.20	47.53	26.28	32.31	14.01	27.16	29.91	65 dBA:	**19**	**21**
Heavy Trucks	80.05	-25.45	-4.60	-1.20	48.80	23.45	20.05	24.69	30.89	30.99	60 dBA:	**40**	**44**
				Total:	**56.56**	**52.95**	**51.67**	**45.64**	**54.06**	**54.69**	55 dBA:	**87**	**95**

Road Name: Avenue A **Segment: South of Main Street**
Average Daily Traffic: 1665 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-8.65	-4.60	-1.20	50.66	48.54	47.23	41.21	49.63	50.26	70 dBA:	**4**	**5**
Medium Trucks	74.83	-25.88	-4.60	-1.20	43.14	21.89	27.91	9.62	22.76	25.52	65 dBA:	**9**	**10**
Heavy Trucks	80.05	-29.84	-4.60	-1.20	44.40	19.05	15.65	20.30	26.50	26.60	60 dBA:	**20**	**23**
				Total:	**52.17**	**48.55**	**47.28**	**41.25**	**49.66**	**50.29**	55 dBA:	**44**	**49**

Road Name: First Avenue **Segment: Main Street to BNSF Railroad**
Average Daily Traffic: 7480 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.12	-4.60	-1.20	57.19	55.06	53.75	47.74	56.16	56.78	70 dBA:	**12**	**13**
Medium Trucks	74.83	-19.36	-4.60	-1.20	49.67	28.42	34.44	16.14	29.29	32.04	65 dBA:	**26**	**28**
Heavy Trucks	80.05	-23.31	-4.60	-1.20	50.93	25.58	22.18	26.83	33.03	33.12	60 dBA:	**56**	**61**
				Total:	**58.69**	**55.08**	**53.80**	**47.78**	**56.19**	**56.82**	55 dBA:	**120**	**132**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS **Project: Barstow General Plan**
Site Conditions: Soft

Road Name: First Avenue **Segment: Irwin Road to Old Highway 58**
Average Daily Traffic: 3277 Vehicles Vehicle Speed: 50 MPH Vehicle Mix: 1 Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	71.12	-7.25	-4.51	-1.20	58.15	56.03	54.72	48.71	57.13	57.75	70 dBA:	**14**	**15**
Medium Trucks	78.79	-24.49	-4.51	-1.20	48.59	27.34	33.36	15.07	28.21	30.96	65 dBA:	**30**	**33**
Heavy Trucks	83.02	-28.45	-4.51	-1.20	48.86	23.51	20.11	24.76	30.96	31.05	60 dBA:	**64**	**71**
				Total:	**59.05**	**56.04**	**54.75**	**48.73**	**57.14**	**57.77**	55 dBA:	**139**	**153**

Road Name: Irwin Road **Segment: Old Highway 58 to First Avenue**
Average Daily Traffic: 5400 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-4.12	-4.60	-1.20	57.44	55.32	54.01	47.99	56.41	57.04	70 dBA:	**12**	**14**
Medium Trucks	76.31	-21.35	-4.60	-1.20	49.16	27.91	33.93	15.63	28.78	31.53	65 dBA:	**27**	**30**
Heavy Trucks	81.16	-25.31	-4.60	-1.20	50.05	24.70	21.30	25.95	32.14	32.24	60 dBA:	**58**	**64**
				Total:	**58.68**	**55.33**	**54.05**	**48.02**	**56.44**	**57.07**	55 dBA:	**125**	**137**

Road Name: Riverside Drive **Segment: First Avenue to Yucca Avenue**
Average Daily Traffic: 1894 Vehicles Vehicle Speed: 25 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-6.62	-4.60	-1.20	47.01	44.89	43.58	37.56	45.98	46.61	70 dBA:	**3**	**3**
Medium Trucks	71.09	-23.86	-4.60	-1.20	41.42	20.17	26.19	7.90	21.04	23.80	65 dBA:	**5**	**6**
Heavy Trucks	78.74	-27.82	-4.60	-1.20	45.12	19.77	16.37	21.02	27.22	27.31	60 dBA:	**12**	**13**
				Total:	**49.85**	**44.92**	**43.66**	**37.66**	**46.06**	**46.68**	55 dBA:	**25**	**28**

Road Name: Lenwood Road **Segment: North of Commerce Parkway**
Average Daily Traffic: 7574 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.31	-4.43	-1.20	57.17	54.80	53.50	47.45	55.88	56.51	70 dBA:	**14**	**15**
Medium Trucks	74.83	-17.18	-4.43	-1.20	52.02	32.81	25.03	34.24	40.39	40.43	65 dBA:	**29**	**32**
Heavy Trucks	80.05	-14.96	-4.43	-1.20	59.46	42.47	34.69	43.89	50.05	50.08	60 dBA:	**63**	**68**
				Total:	**61.94**	**55.07**	**53.57**	**49.18**	**56.98**	**57.49**	55 dBA:	**136**	**147**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Lenwood Road **Segment: I-15 to Mercantile Way**
Average Daily Traffic: 17635 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	1.36	-4.43	-1.20	60.84	58.47	57.17	51.12	59.55	60.18	70 dBA:	**24**	**26**
Medium Trucks	74.83	-13.51	-4.43	-1.20	55.69	36.48	28.70	37.91	44.06	44.10	65 dBA:	**51**	**55**
Heavy Trucks	80.05	-11.29	-4.43	-1.20	63.13	46.14	38.36	47.56	53.72	53.75	60 dBA:	**111**	**119**
				Total:	**65.61**	**58.74**	**57.24**	**52.85**	**60.66**	**61.16**	55 dBA:	**238**	**257**

Road Name: Lenwood Road **Segment: South of Mercantile Way**
Average Daily Traffic: 1644 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-8.95	-4.43	-1.20	50.54	48.16	46.87	40.82	49.25	49.88	70 dBA:	**5**	**5**
Medium Trucks	74.83	-23.82	-4.43	-1.20	45.39	26.18	18.40	27.61	33.76	33.79	65 dBA:	**11**	**11**
Heavy Trucks	80.05	-21.60	-4.43	-1.20	52.82	35.83	28.05	37.26	43.41	43.45	60 dBA:	**23**	**25**
				Total:	**55.31**	**48.44**	**46.93**	**42.54**	**50.35**	**50.85**	55 dBA:	**49**	**53**

Road Name: Commerce Parkway **Segment: North of Lenwood Road**
Average Daily Traffic: 5753 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-3.26	-4.60	-1.20	56.05	53.92	52.61	46.60	55.02	55.64	70 dBA:	**10**	**11**
Medium Trucks	74.83	-20.50	-4.60	-1.20	48.53	27.28	33.30	15.00	28.15	30.90	65 dBA:	**22**	**24**
Heavy Trucks	80.05	-24.45	-4.60	-1.20	49.79	24.44	21.04	25.69	31.89	31.98	60 dBA:	**47**	**52**
				Total:	**57.55**	**53.94**	**52.66**	**46.64**	**55.05**	**55.68**	55 dBA:	**101**	**111**

Road Name: Mercantile Way **Segment: East of Lenwood Road**
Average Daily Traffic: 957 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-11.05	-4.60	-1.20	48.26	46.13	44.82	38.81	47.23	47.86	70 dBA:	**3**	**3**
Medium Trucks	74.83	-28.29	-4.60	-1.20	40.74	19.49	25.51	7.21	20.36	23.11	65 dBA:	**7**	**7**
Heavy Trucks	80.05	-32.24	-4.60	-1.20	42.00	16.65	13.25	17.90	24.10	24.19	60 dBA:	**14**	**16**
				Total:	**49.76**	**46.15**	**44.87**	**38.85**	**47.26**	**47.89**	55 dBA:	**30**	**34**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: L Street **Segment: Linda Vista Avenue to Rimrock Road**
Average Daily Traffic: 5202 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-4.79	-4.60	-1.20	58.75	56.63	55.32	49.30	57.72	58.35	70 dBA:	**15**	**17**
Medium Trucks	77.62	-22.03	-4.60	-1.20	49.79	28.54	34.56	16.27	29.41	32.17	65 dBA:	**33**	**36**
Heavy Trucks	82.14	-25.98	-4.60	-1.20	50.36	25.00	21.60	26.25	32.45	32.55	60 dBA:	**71**	**78**
				Total:	**59.80**	**56.64**	**55.35**	**49.33**	**57.74**	**58.37**	55 dBA:	**152**	**168**

Road Name: L Street **Segment: Rimrock Road to I-15**
Average Daily Traffic: 5202 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 1 Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-4.79	-4.51	-1.20	58.84	56.72	55.41	49.40	57.82	58.44	70 dBA:	**15**	**17**
Medium Trucks	77.62	-22.03	-4.51	-1.20	49.88	28.63	34.65	16.36	29.51	32.26	65 dBA:	**33**	**37**
Heavy Trucks	82.14	-25.98	-4.51	-1.20	50.45	25.10	21.70	26.34	32.54	32.64	60 dBA:	**72**	**79**
				Total:	**59.89**	**56.73**	**55.45**	**49.42**	**57.83**	**58.46**	55 dBA:	**155**	**170**

Road Name: L Street **Segment: I-15 to Main Street**
Average Daily Traffic: 6660 Vehicles Vehicle Speed: 55 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	72.73	-4.84	-4.43	-1.20	62.26	59.89	58.60	52.54	60.98	61.61	70 dBA:	**27**	**30**
Medium Trucks	79.85	-19.70	-4.43	-1.20	54.52	35.32	27.53	36.74	42.90	42.93	65 dBA:	**58**	**64**
Heavy Trucks	83.81	-17.48	-4.43	-1.20	60.70	43.72	35.93	45.14	51.30	51.33	60 dBA:	**126**	**137**
				Total:	**64.97**	**60.01**	**58.63**	**53.37**	**61.48**	**62.05**	55 dBA:	**270**	**295**

Road Name: Rimrock Road **Segment: L Street to H Street**
Average Daily Traffic: 4162 Vehicles Vehicle Speed: 50 MPH Vehicle Mix: 1 Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	71.12	-6.22	-4.51	-1.20	59.19	57.07	55.76	49.74	58.16	58.79	70 dBA:	**16**	**18**
Medium Trucks	78.79	-23.45	-4.51	-1.20	49.63	28.38	34.40	16.11	29.25	32.00	65 dBA:	**35**	**39**
Heavy Trucks	83.02	-27.41	-4.51	-1.20	49.90	24.55	21.15	25.80	32.00	32.09	60 dBA:	**76**	**83**
				Total:	**60.09**	**57.08**	**55.79**	**49.76**	**58.18**	**58.81**	55 dBA:	**163**	**179**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Rimrock Road **Segment: H Street to Barstow Road**
Average Daily Traffic: 5202 Vehicles Vehicle Speed: 50 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	71.12	-5.50	-4.43	-1.20	60.00	57.63	56.33	50.28	58.71	59.34	70 dBA:	**19**	**21**
Medium Trucks	78.79	-20.36	-4.43	-1.20	52.81	33.60	25.82	35.02	41.18	41.21	65 dBA:	**42**	**45**
Heavy Trucks	83.02	-18.14	-4.43	-1.20	59.25	42.26	34.48	43.69	49.84	49.88	60 dBA:	**90**	**98**
				Total:	**63.08**	**57.77**	**56.37**	**51.24**	**59.31**	**59.87**	55 dBA:	**194**	**211**

Road Name: Rimrock Road **Segment: Barstow Road to Muriel Drive**
Average Daily Traffic: 6242 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-4.25	-4.43	-1.20	59.47	57.10	55.81	49.75	58.18	58.82	70 dBA:	**18**	**20**
Medium Trucks	77.62	-19.11	-4.43	-1.20	52.88	33.68	25.89	35.10	41.26	41.29	65 dBA:	**39**	**43**
Heavy Trucks	82.14	-16.89	-4.43	-1.20	59.62	42.63	34.85	44.06	50.21	50.25	60 dBA:	**84**	**92**
				Total:	**63.00**	**57.27**	**55.85**	**50.90**	**58.90**	**59.45**	55 dBA:	**182**	**198**

Road Name: Rimrock Road **Segment: Muriel Drive to Broadway Avenue**
Average Daily Traffic: 6242 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-4.25	-4.43	-1.20	59.47	57.10	55.81	49.75	58.18	58.82	70 dBA:	**18**	**20**
Medium Trucks	77.62	-19.11	-4.43	-1.20	52.88	33.68	25.89	35.10	41.26	41.29	65 dBA:	**39**	**43**
Heavy Trucks	82.14	-16.89	-4.43	-1.20	59.62	42.63	34.85	44.06	50.21	50.25	60 dBA:	**84**	**92**
				Total:	**63.00**	**57.27**	**55.85**	**50.90**	**58.90**	**59.45**	55 dBA:	**182**	**198**

Road Name: Rimrock Road **Segment: Broadway Avenue to Montara Road**
Average Daily Traffic: 4162 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-6.01	-4.43	-1.20	57.71	55.34	54.05	47.99	56.42	57.06	70 dBA:	**14**	**15**
Medium Trucks	77.62	-20.87	-4.43	-1.20	51.12	31.92	24.13	33.34	39.50	39.53	65 dBA:	**30**	**33**
Heavy Trucks	82.14	-18.65	-4.43	-1.20	57.86	40.87	33.09	42.30	48.45	48.49	60 dBA:	**64**	**70**
				Total:	**61.24**	**55.51**	**54.09**	**49.14**	**57.14**	**57.69**	55 dBA:	**139**	**151**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Un-Named Road **Segment: Muriel Road to Montara Road**

Average Daily Traffic: 1 Vehicles | Vehicle Speed: 55 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	72.73	-43.07	-4.43	-1.20	24.03	21.66	20.36	14.31	22.74	23.37	70 dBA:	**0**	**0**
Medium Trucks	79.85	-57.94	-4.43	-1.20	16.29	-2.92	-10.70	-1.49	4.66	4.70	65 dBA:	**0**	**0**
Heavy Trucks	83.81	-55.72	-4.43	-1.20	22.47	5.48	-2.30	6.91	13.06	13.10	60 dBA:	**0**	**0**
				Total:	**26.74**	**21.78**	**20.39**	**15.13**	**23.25**	**23.82**	55 dBA:	**1**	**1**

APPENDIX D

SoundPlan Model Existing Noise Calculations

Name	Usage	X m	Y m	Z m	Ldn dB(A)	Leq,d dB(A)	Leq,e dB(A)	Leq,n dB(A)	
A	RA	11639.3	17600.9	1.5	73.8	67.1	67.0	67.1	
B	RA	17185.2	18875.7	0.5	65.6	60.9	58.4	58.7	
C	RA	24057.0	18408.4	1.0	72.2	67.0	64.5	65.4	
D	RA	20009.1	18581.9	1.5	69.7	65.4	63.6	62.6	

Barstow 2014 General Plan Amendment
Source level road - Existing

MSVges Night Veh/h	MSVges Evening Veh/h	Pavement type	MSVges Day Veh/h	Road	KM km	ADT Veh/24h
1317.42	2359.91	Average (of DGAC and PCC)	3190.46	I-15 south of Lenwood Rd	0.000	57222
1389.28	2488.62	Average (of DGAC and PCC)	3364.47	I-15 north of Lenwood Rd	0.000	60343
1556.95	2788.98	Average (of DGAC and PCC)	3770.54	I-15 north of Barstow Road	0.000	67626
1089.86	1952.28	Average (of DGAC and PCC)	2639.37	I-15 north of I-40	0.000	47338
502.99	668.77	Average (of DGAC and PCC)	1024.82	I-40 east of Montara Ave	0.000	18831
335.98	495.85	Average (of DGAC and PCC)	664.47	SR-58 west of I-15	0.000	12485
124.87	357.35	Average (of DGAC and PCC)	501.93	Main St west City limit to SR-58	0.000	8219
95.62	273.65	Average (of DGAC and PCC)	384.37	Main Street SR-58 to Woodham Ave	0.000	6294
111.59	319.35	Average (of DGAC and PCC)	448.56	Main Street Woodham Ave to L St	0.000	7345
156.63	448.26	Average (of DGAC and PCC)	629.63	Main Street L St to Ave H	0.000	10310
177.02	506.61	Average (of DGAC and PCC)	711.58	Main Street Ave H to Ave D	0.000	11652
181.29	518.83	Average (of DGAC and PCC)	728.74	Main Street Ave D to Ave A	0.000	11933
175.61	502.57	Average (of DGAC and PCC)	705.90	Main Street Ave A to First Ave	0.000	11559
196.64	562.74	Average (of DGAC and PCC)	790.42	Main Street First Ave to Barsotw Rd	0.000	12943
172.77	494.43	Average (of DGAC and PCC)	694.48	Main Street Barstow Rd to Muriel Dr	0.000	11372
183.98	526.52	Average (of DGAC and PCC)	739.55	Main Street Muriel Dr to Yucca Ave	0.000	12110
195.06	558.22	Average (of DGAC and PCC)	784.07	Main Street Yucca Ave to Coolwater Ln	0.000	12839
223.34	639.17	Average (of DGAC and PCC)	897.78	Main Street Coolwater Ln to I-15	0.000	14701
185.09	529.70	Average (of DGAC and PCC)	744.01	Main Street I-15 to I-40	0.000	12183
155.21	385.16	Average (of DGAC and PCC)	472.21	Barstow Road Main St to Mtn View St	0.000	8219
235.19	583.63	Average (of DGAC and PCC)	715.53	Barstow Road Mtn View St to Virginia Wy	0.000	12454
185.09	459.30	Average (of DGAC and PCC)	563.11	Barstow Road Armory Rd to Rimrock Rd	0.000	9801
111.59	276.91	Average (of DGAC and PCC)	339.50	Barstow Road South of Rimrock Rd	0.000	5909
103.22	295.39	Average (of DGAC and PCC)	414.91	Armory Road Barstow Rd to 11th St	0.000	6794
107.81	308.52	Average (of DGAC and PCC)	433.35	Armory Road 11th St to Muriel Dr	0.000	7096
93.18	331.21	Average (of DGAC and PCC)	454.23	Armory Road Muriel Dr to Broadway Ave	0.000	7283
61.09	217.15	Average (of DGAC and PCC)	297.81	Armory Road Broadway Ave to Higgins Rd	0.000	4775
63.62	226.16	Average (of DGAC and PCC)	310.16	Armory Road Higgins Rd to Montara Rd	0.000	4973
193.25	553.04	Average (of DGAC and PCC)	776.80	Montara Road I-40 to Armory Rd	0.000	12720
86.46	247.43	Average (of DGAC and PCC)	347.55	Montara Road Armory Rd to Rimrock Rd	0.000	5691
115.07	329.30	Average (of DGAC and PCC)	462.54	Lenwood Road north of Commerce Pkwy	0.000	7574
267.92	766.74	Average (of DGAC and PCC)	1076.96	Lenwood Road 1-15 to Mercantile Wy	0.000	17635
24.98	71.48	Average (of DGAC and PCC)	100.40	Lenwood Road south of Mercantile Wy	0.000	1644
66.55	236.57	Average (of DGAC and PCC)	324.44	L Street Linda Vista Ave to Rimrock Rd	0.000	5202
66.55	236.57	Average (of DGAC and PCC)	324.44	L Street Rimrock Rd to I-15	0.000	5202

Barstow 2014 General Plan Amendment
Source level road - Existing

MSVges Night Veh/h	MSVges Evening Veh/h	Pavement type	MSVges Day Veh/h	Road	KM km	ADT Veh/24h	
101.18	289.57	Average (of DGAC and PCC)	406.72	L Street I-15 to Main St	0.000	6660	
53.25	189.28	Average (of DGAC and PCC)	259.58	Rimrock Road L St to H St	0.000	4162	
79.03	226.17	Average (of DGAC and PCC)	317.68	Rimrock Road H St to Barstow Rd	0.000	5202	
94.83	271.39	Average (of DGAC and PCC)	381.20	Rimrock Road Barstow Rd to Muriel Dr	0.000	6242	
94.83	271.39	Average (of DGAC and PCC)	381.20	Rimrock Road Muriel Dr to Broadway Ave	0.000	6242	
63.23	180.96	Average (of DGAC and PCC)	254.17	Rimrock Road Broadway Ave to Montara Rd	0.000	4162	
65.22	231.84	Average (of DGAC and PCC)	317.96	Muriel Road Armory Rd to Rimrock Rd	0.000	5098	
1700.66	3046.41	Average (of DGAC and PCC)	4118.57	I-15 north of SR-58	0.000	73868	
1676.72	3003.52	Average (of DGAC and PCC)	4060.58	I-15 north of L Street	0.000	72828	
500.21	665.07	Average (of DGAC and PCC)	1019.16	I-40 east of I-15	0.000	18727	

Barstow 2014 General Plan Amendment
Source level railroad - Existing

Horn	LmE(7-19) dB(A)	LmE(22-7) dB(A)	LmE(19-22) dB(A)	Ser.No.	Rail	KM
	74.79	74.82	74.69	1	BNSF Railroad	0.000
	74.79	74.82	74.69	2	BNSF RR - Bakersfield	0.000

APPENDIX E

FHWA Model Year 2020 Noise Calculations

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITHOUT PROJECT CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

	Vehicle Mix 1 (Collector Secondary)				Vehicle Mix 2 (Arterial)				Vehicle Mix 3 (SR-247)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.42%	69.50%	12.90%	9.60%	92.00%	67.77%	13.89%	16.25%	97.90%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	0.70%	0.13%	0.35%	1.18%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	0.50%	0.05%	0.37%	0.92%

Road Name: Main Street **Segment: West City Limit to SR 58**

Average Daily Traffic: 9256 Vehicles Vehicle Speed: 55 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	72.73	-3.41	-4.43	-1.20	63.69	61.32	60.03	53.97	62.41	63.04	70 dBA:	**34**	**37**
Medium Trucks	79.85	-18.27	-4.43	-1.20	55.95	36.75	28.96	38.17	44.33	44.36	65 dBA:	**73**	**79**
Heavy Trucks	83.81	-16.06	-4.43	-1.20	62.13	45.14	37.36	46.57	52.73	52.76	60 dBA:	**156**	**171**
				Total:	**66.40**	**61.44**	**60.06**	**54.80**	**62.91**	**63.48**	55 dBA:	**337**	**368**

Road Name: Main Street **Segment: SR 58 to Woodham Avenue**

Average Daily Traffic: 7089 Vehicles Vehicle Speed: 55 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	72.73	-4.57	-4.43	-1.20	62.54	60.16	58.87	52.82	61.25	61.88	70 dBA:	**28**	**31**
Medium Trucks	79.85	-19.43	-4.43	-1.20	54.80	35.59	27.81	37.01	43.17	43.20	65 dBA:	**61**	**66**
Heavy Trucks	83.81	-17.21	-4.43	-1.20	60.98	43.99	36.20	45.41	51.57	51.60	60 dBA:	**131**	**143**
				Total:	**65.25**	**60.28**	**58.90**	**53.64**	**61.75**	**62.32**	55 dBA:	**282**	**308**

Road Name: Main Street **Segment: Woodham Avenue to L Street**

Average Daily Traffic: 8272 Vehicles Vehicle Speed: 55 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	72.73	-3.90	-4.43	-1.20	63.21	60.83	59.54	53.49	61.92	62.55	70 dBA:	**31**	**34**
Medium Trucks	79.85	-18.76	-4.43	-1.20	55.47	36.26	28.48	37.68	43.84	43.87	65 dBA:	**67**	**73**
Heavy Trucks	83.81	-16.54	-4.43	-1.20	61.65	44.66	36.87	46.08	52.24	52.27	60 dBA:	**145**	**158**
				Total:	**65.92**	**60.95**	**59.57**	**54.31**	**62.42**	**62.99**	55 dBA:	**312**	**341**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITHOUT PROJECT CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Main Street **Segment: L Street to Avenue H**

Average Daily Traffic: 11611 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-1.04	-4.43	-1.20	60.69	58.32	57.03	50.98	59.41	60.04	70 dBA:	**23**	**24**
Medium Trucks	76.31	-15.91	-4.43	-1.20	54.78	35.57	27.79	37.00	43.15	43.19	65 dBA:	**49**	**53**
Heavy Trucks	81.16	-13.69	-4.43	-1.20	61.85	44.86	37.08	46.28	52.44	52.47	60 dBA:	**105**	**113**
				Total:	**64.78**	**58.54**	**57.08**	**52.37**	**60.29**	**60.81**	55 dBA:	**225**	**244**

Road Name: Main Street **Segment: Avenue H to Avenue D**

Average Daily Traffic: 13123 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-0.51	-4.43	-1.20	61.23	58.85	57.56	51.51	59.94	60.57	70 dBA:	**24**	**26**
Medium Trucks	76.31	-15.37	-4.43	-1.20	55.31	36.10	28.32	37.53	43.69	43.72	65 dBA:	**53**	**57**
Heavy Trucks	81.16	-13.16	-4.43	-1.20	62.38	45.39	37.61	46.81	52.97	53.00	60 dBA:	**113**	**123**
				Total:	**65.31**	**59.07**	**57.61**	**52.90**	**60.82**	**61.35**	55 dBA:	**244**	**265**

Road Name: Main Street **Segment: Avenue D to Avenue A**

Average Daily Traffic: 13439 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-0.40	-4.43	-1.20	61.33	58.96	57.66	51.61	60.04	60.67	70 dBA:	**25**	**27**
Medium Trucks	76.31	-15.27	-4.43	-1.20	55.42	36.21	28.43	37.63	43.79	43.82	65 dBA:	**53**	**58**
Heavy Trucks	81.16	-13.05	-4.43	-1.20	62.48	45.49	37.71	46.92	53.07	53.11	60 dBA:	**115**	**125**
				Total:	**65.41**	**59.17**	**57.71**	**53.01**	**60.92**	**61.45**	55 dBA:	**248**	**269**

Road Name: Main Street **Segment: Avenue A to First Avenue**

Average Daily Traffic: 13017 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	0.04	-4.43	-1.20	59.52	57.15	55.86	49.80	58.23	58.86	70 dBA:	**19**	**21**
Medium Trucks	74.83	-14.83	-4.43	-1.20	54.37	35.16	27.38	36.59	42.75	42.78	65 dBA:	**42**	**45**
Heavy Trucks	80.05	-12.61	-4.43	-1.20	61.81	44.82	37.04	46.25	52.40	52.43	60 dBA:	**90**	**98**
				Total:	**64.29**	**57.42**	**55.92**	**51.53**	**59.34**	**59.84**	55 dBA:	**195**	**210**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITHOUT PROJECT CONDITIONS | **Project: Barstow General Plan** | **Site Conditions: Soft**

Road Name: Main Street **Segment: First Avenue to Barstow Road**

Average Daily Traffic: 14575 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	0.53	-4.43	-1.20	60.01	57.64	56.35	50.29	58.72	59.35	70 dBA:	**21**	**23**
Medium Trucks	74.83	-14.34	-4.43	-1.20	54.86	35.66	27.87	37.08	43.24	43.27	65 dBA:	**45**	**49**
Heavy Trucks	80.05	-12.12	-4.43	-1.20	62.30	45.31	37.53	46.74	52.89	52.93	60 dBA:	**97**	**105**
				Total:	**64.78**	**57.91**	**56.41**	**52.02**	**59.83**	**60.33**	55 dBA:	**210**	**227**

Road Name: Main Street **Segment: Barstow Road to Muriel Drive**

Average Daily Traffic: 12806 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-0.03	-4.43	-1.20	59.45	57.08	55.78	49.73	58.16	58.79	70 dBA:	**19**	**21**
Medium Trucks	74.83	-14.90	-4.43	-1.20	54.30	35.09	27.31	36.52	42.67	42.71	65 dBA:	**41**	**45**
Heavy Trucks	80.05	-12.68	-4.43	-1.20	61.74	44.75	36.97	46.18	52.33	52.36	60 dBA:	**89**	**97**
				Total:	**64.22**	**57.35**	**55.85**	**51.46**	**59.27**	**59.77**	55 dBA:	**192**	**208**

Road Name: Main Street **Segment: Muriel Drive to Yucca Avenue**

Average Daily Traffic: 13638 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	0.24	-4.43	-1.20	59.72	57.35	56.06	50.00	58.44	59.07	70 dBA:	**20**	**22**
Medium Trucks	74.83	-14.63	-4.43	-1.20	54.58	35.37	27.59	36.79	42.95	42.98	65 dBA:	**43**	**47**
Heavy Trucks	80.05	-12.41	-4.43	-1.20	62.01	45.02	37.24	46.45	52.60	52.64	60 dBA:	**93**	**101**
				Total:	**64.49**	**57.62**	**56.12**	**51.73**	**59.54**	**60.04**	55 dBA:	**201**	**217**

Road Name: Main Street **Segment: Yucca Avenue to Coolwater Lane**

Average Daily Traffic: 14458 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-0.09	-4.43	-1.20	61.65	59.28	57.98	51.93	60.36	60.99	70 dBA:	**26**	**28**
Medium Trucks	76.31	-14.95	-4.43	-1.20	55.73	36.53	28.74	37.95	44.11	44.14	65 dBA:	**56**	**61**
Heavy Trucks	81.16	-12.74	-4.43	-1.20	62.80	45.81	38.03	47.24	53.39	53.42	60 dBA:	**121**	**131**
				Total:	**65.73**	**59.49**	**58.03**	**53.32**	**61.24**	**61.77**	55 dBA:	**261**	**283**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITHOUT PROJECT CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Main Street **Segment: Coolwater Lane to I-15**
Average Daily Traffic: 16556 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	0.50	-4.43	-1.20	62.24	59.86	58.57	52.52	60.95	61.58	70 dBA:	**29**	**31**
Medium Trucks	76.31	-14.37	-4.43	-1.20	56.32	37.11	29.33	38.54	44.69	44.73	65 dBA:	**61**	**67**
Heavy Trucks	81.16	-12.15	-4.43	-1.20	63.39	46.40	38.62	47.82	53.98	54.01	60 dBA:	**132**	**144**
				Total:	**66.32**	**60.08**	**58.62**	**53.91**	**61.83**	**62.36**	55 dBA:	**285**	**309**

Road Name: Main Street **Segment: I-15 to I-40**
Average Daily Traffic: 13720 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-0.31	-4.43	-1.20	61.42	59.05	57.75	51.70	60.13	60.76	70 dBA:	**25**	**27**
Medium Trucks	76.31	-15.18	-4.43	-1.20	55.51	36.30	28.52	37.72	43.88	43.91	65 dBA:	**54**	**59**
Heavy Trucks	81.16	-12.96	-4.43	-1.20	62.57	45.58	37.80	47.01	53.16	53.20	60 dBA:	**117**	**127**
				Total:	**65.50**	**59.26**	**57.80**	**53.10**	**61.01**	**61.54**	55 dBA:	**252**	**273**

Road Name: Barstow Road **Segment: Main Street to Mountain View Street**
Average Daily Traffic: 9256 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 3 Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.17	-4.51	-1.20	58.22	55.74	54.88	50.79	58.30	58.80	70 dBA:	**17**	**18**
Medium Trucks	74.83	-20.36	-4.51	-1.20	48.75	26.41	25.01	24.70	31.35	31.62	65 dBA:	**36**	**39**
Heavy Trucks	80.05	-21.44	-4.51	-1.20	52.89	29.12	24.95	29.00	35.35	35.46	60 dBA:	**77**	**84**
				Total:	**59.70**	**55.76**	**54.89**	**50.83**	**58.33**	**58.83**	55 dBA:	**167**	**180**

Road Name: Barstow Road **Segment: Mountain View Street to Virginia Way**
Average Daily Traffic: 14025 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 3 Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	0.63	-4.51	-1.20	60.03	57.55	56.68	52.59	60.10	60.61	70 dBA:	**22**	**24**
Medium Trucks	74.83	-18.56	-4.51	-1.20	50.56	28.21	26.82	26.51	33.16	33.42	65 dBA:	**47**	**51**
Heavy Trucks	80.05	-19.64	-4.51	-1.20	54.69	30.92	26.76	30.81	37.16	37.26	60 dBA:	**102**	**110**
				Total:	**61.51**	**57.56**	**56.69**	**52.63**	**60.13**	**60.64**	55 dBA:	**220**	**238**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITHOUT PROJECT CONDITIONS | **Project: Barstow General Plan** | **Site Conditions: Soft**

Road Name: Barstow Road | **Segment: Armory Road to Rimrock Road**

Average Daily Traffic: 11037 Vehicles | Vehicle Speed: 45 MPH | Vehicle Mix: 3 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.50	-4.43	-1.20	62.22	59.74	58.87	54.78	62.29	62.80	70 dBA:	**31**	**33**
Medium Trucks	77.62	-20.69	-4.43	-1.20	51.31	28.96	27.56	27.26	33.91	34.17	65 dBA:	**66**	**71**
Heavy Trucks	82.14	-21.77	-4.43	-1.20	54.74	30.97	26.81	30.86	37.21	37.31	60 dBA:	**143**	**154**
				Total:	**63.22**	**59.75**	**58.88**	**54.81**	**62.31**	**62.81**	55 dBA:	**307**	**332**

Road Name: Barstow Road | **Segment: South of Rimrock Road**

Average Daily Traffic: 6655 Vehicles | Vehicle Speed: 55 MPH | Vehicle Mix: 3 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	72.73	-4.57	-4.43	-1.20	62.53	60.05	59.19	55.10	62.60	63.11	70 dBA:	**32**	**35**
Medium Trucks	79.85	-23.76	-4.43	-1.20	50.47	28.13	26.73	26.42	33.07	33.33	65 dBA:	**69**	**75**
Heavy Trucks	83.81	-24.84	-4.43	-1.20	53.35	29.58	25.41	29.46	35.81	35.92	60 dBA:	**149**	**161**
				Total:	**63.26**	**60.06**	**59.19**	**55.11**	**62.62**	**63.12**	55 dBA:	**322**	**348**

Road Name: Armory Road | **Segment: Barstow Road to Eleventh Street**

Average Daily Traffic: 7651 Vehicles | Vehicle Speed: 45 MPH | Vehicle Mix: 1 | Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-3.11	-4.51	-1.20	60.52	58.40	57.08	51.07	59.49	60.12	70 dBA:	**20**	**22**
Medium Trucks	77.62	-20.35	-4.51	-1.20	51.56	30.31	36.33	18.04	31.18	33.93	65 dBA:	**43**	**47**
Heavy Trucks	82.14	-24.31	-4.51	-1.20	52.12	26.77	23.37	28.02	34.22	34.31	60 dBA:	**93**	**102**
				Total:	**61.56**	**58.41**	**57.12**	**51.09**	**59.51**	**60.14**	55 dBA:	**200**	**220**

Road Name: Armory Road | **Segment: Eleventh Street to Muriel Drive**

Average Daily Traffic: 7991 Vehicles | Vehicle Speed: 45 MPH | Vehicle Mix: 1 | Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.93	-4.51	-1.20	60.71	58.59	57.27	51.26	59.68	60.31	70 dBA:	**21**	**23**
Medium Trucks	77.62	-20.16	-4.51	-1.20	51.75	30.50	36.52	18.23	31.37	34.12	65 dBA:	**44**	**49**
Heavy Trucks	82.14	-24.12	-4.51	-1.20	52.31	26.96	23.56	28.21	34.41	34.50	60 dBA:	**95**	**105**
				Total:	**61.75**	**58.59**	**57.31**	**51.28**	**59.70**	**60.33**	55 dBA:	**206**	**227**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITHOUT PROJECT CONDITIONS | **Project: Barstow General Plan** | **Site Conditions: Soft**

Road Name: Armory Road | **Segment: Muriel Drive to Broadway Avenue**

Average Daily Traffic: 8202 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 1 | Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-2.30	-4.51	-1.20	59.35	57.23	55.91	49.90	58.32	58.95	70 dBA:	**17**	**18**
Medium Trucks	76.31	-19.54	-4.51	-1.20	51.06	29.81	35.83	17.54	30.68	33.44	65 dBA:	**36**	**40**
Heavy Trucks	81.16	-23.49	-4.51	-1.20	51.95	26.60	23.20	27.85	34.05	34.15	60 dBA:	**78**	**85**
				Total:	**60.59**	**57.24**	**55.96**	**49.93**	**58.34**	**58.97**	55 dBA:	**167**	**184**

Road Name: Armory Road | **Segment: Broadway Avenue to Higgins Road**

Average Daily Traffic: 5378 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 1 | Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-4.13	-4.51	-1.20	57.52	55.39	54.08	48.07	56.49	57.11	70 dBA:	**13**	**14**
Medium Trucks	76.31	-21.37	-4.51	-1.20	49.23	27.98	34.00	15.71	28.85	31.60	65 dBA:	**27**	**30**
Heavy Trucks	81.16	-25.33	-4.51	-1.20	50.12	24.77	21.37	26.02	32.22	32.31	60 dBA:	**59**	**64**
				Total:	**58.76**	**55.40**	**54.12**	**48.10**	**56.51**	**57.14**	55 dBA:	**126**	**139**

Road Name: Armory Road | **Segment: Higgins Road to Montara Road**

Average Daily Traffic: 5601 Vehicles | Vehicle Speed: 25 MPH | Vehicle Mix: 1 | Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-1.92	-4.51	-1.20	51.81	49.69	48.38	42.36	50.78	51.41	70 dBA:	**5**	**6**
Medium Trucks	71.09	-19.15	-4.51	-1.20	46.22	24.97	30.99	12.70	25.84	28.60	65 dBA:	**11**	**13**
Heavy Trucks	78.74	-23.11	-4.51	-1.20	49.92	24.57	21.17	25.82	32.02	32.11	60 dBA:	**25**	**27**
				Total:	**54.65**	**49.72**	**48.46**	**42.46**	**50.86**	**51.48**	55 dBA:	**53**	**58**

Road Name: Montara Road | **Segment: I-40 to Armory Road**

Average Daily Traffic: 13720 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-0.31	-4.43	-1.20	61.42	59.05	57.75	51.70	60.13	60.76	70 dBA:	**25**	**27**
Medium Trucks	76.31	-15.18	-4.43	-1.20	55.51	36.30	28.52	37.72	43.88	43.91	65 dBA:	**54**	**59**
Heavy Trucks	81.16	-12.96	-4.43	-1.20	62.57	45.58	37.80	47.01	53.16	53.20	60 dBA:	**117**	**127**
				Total:	**65.50**	**59.26**	**57.80**	**53.10**	**61.01**	**61.54**	55 dBA:	**252**	**273**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITHOUT PROJECT CONDITIONS | **Project: Barstow General Plan** | **Site Conditions: Soft**

Road Name: Montara Road | **Segment: Armory Road to Rimrock Road**

Average Daily Traffic: 6409 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-3.62	-4.43	-1.20	58.11	55.74	54.45	48.39	56.83	57.46	70 dBA:	**15**	**16**
Medium Trucks	76.31	-18.49	-4.43	-1.20	52.20	32.99	25.21	34.42	40.57	40.61	65 dBA:	**33**	**35**
Heavy Trucks	81.16	-16.27	-4.43	-1.20	59.27	42.28	34.49	43.70	49.86	49.89	60 dBA:	**70**	**76**
				Total:	**62.20**	**55.96**	**54.50**	**49.79**	**57.71**	**58.23**	55 dBA:	**151**	**164**

Road Name: Muriel Drive | **Segment: North of Armory Road**

Average Daily Traffic: 9924 Vehicles | Vehicle Speed: 25 MPH | Vehicle Mix: 1 | Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	0.57	-4.60	-1.20	54.21	52.08	50.77	44.76	53.18	53.80	70 dBA:	**8**	**8**
Medium Trucks	71.09	-16.67	-4.60	-1.20	48.61	27.37	33.39	15.09	28.24	30.99	65 dBA:	**16**	**18**
Heavy Trucks	78.74	-20.63	-4.60	-1.20	52.31	26.96	23.56	28.21	34.41	34.50	60 dBA:	**35**	**39**
				Total:	**57.04**	**52.11**	**50.86**	**44.86**	**53.25**	**53.88**	55 dBA:	**76**	**84**

Road Name: Muriel Drive | **Segment: Armory Road to Rimrock Road**

Average Daily Traffic: 5741 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 1 | Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-3.85	-4.51	-1.20	57.80	55.68	54.36	48.35	56.77	57.40	70 dBA:	**13**	**15**
Medium Trucks	76.31	-21.09	-4.51	-1.20	49.51	28.26	34.28	15.99	29.14	31.89	65 dBA:	**28**	**31**
Heavy Trucks	81.16	-25.04	-4.51	-1.20	50.40	25.05	21.65	26.30	32.50	32.60	60 dBA:	**61**	**67**
				Total:	**59.04**	**55.69**	**54.41**	**48.38**	**56.79**	**57.42**	55 dBA:	**132**	**145**

Road Name: Windy Pass | **Segment: Barstow Road to Eleventh Street**

Average Daily Traffic: 1289 Vehicles | Vehicle Speed: 25 MPH | Vehicle Mix: 1 | Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-8.30	-4.60	-1.20	45.34	43.22	41.91	35.89	44.31	44.94	70 dBA:	**2**	**2**
Medium Trucks	71.09	-25.53	-4.60	-1.20	39.75	18.50	24.52	6.23	19.37	22.12	65 dBA:	**4**	**5**
Heavy Trucks	78.74	-29.49	-4.60	-1.20	43.45	18.10	14.70	19.35	25.55	25.64	60 dBA:	**9**	**10**
				Total:	**48.18**	**43.25**	**41.99**	**35.99**	**44.38**	**45.01**	55 dBA:	**20**	**22**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITHOUT PROJECT CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Mountain View Street **Segment: East of Barstow Road**

Average Daily Traffic: 3456 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 1 | Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-5.47	-4.60	-1.20	53.83	51.71	50.40	44.39	52.80	53.43	70 dBA:	**7**	**8**
Medium Trucks	74.83	-22.71	-4.60	-1.20	46.31	25.06	31.08	12.79	25.94	28.69	65 dBA:	**15**	**17**
Heavy Trucks	80.05	-26.67	-4.60	-1.20	47.58	22.22	18.82	23.47	29.67	29.77	60 dBA:	**33**	**37**
				Total:	**55.34**	**51.72**	**50.45**	**44.42**	**52.83**	**53.46**	55 dBA:	**72**	**79**

Road Name: Mountain View Street **Segment: West of Barstow Road**

Average Daily Traffic: 5155 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 1 | Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-3.74	-4.60	-1.20	55.57	53.45	52.13	46.12	54.54	55.17	70 dBA:	**9**	**10**
Medium Trucks	74.83	-20.98	-4.60	-1.20	48.05	26.80	32.82	14.53	27.67	30.42	65 dBA:	**20**	**22**
Heavy Trucks	80.05	-24.93	-4.60	-1.20	49.31	23.96	20.56	25.21	31.41	31.50	60 dBA:	**43**	**48**
				Total:	**57.07**	**53.46**	**52.19**	**46.16**	**54.57**	**55.20**	55 dBA:	**94**	**103**

Road Name: Avenue A **Segment: South of Main Street**

Average Daily Traffic: 1875 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 1 | Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-8.13	-4.60	-1.20	51.18	49.05	47.74	41.73	50.15	50.78	70 dBA:	**5**	**5**
Medium Trucks	74.83	-25.37	-4.60	-1.20	43.66	22.41	28.43	10.14	23.28	26.03	65 dBA:	**10**	**11**
Heavy Trucks	80.05	-29.32	-4.60	-1.20	44.92	19.57	16.17	20.82	27.02	27.11	60 dBA:	**22**	**24**
				Total:	**52.68**	**49.07**	**47.80**	**41.77**	**50.18**	**50.81**	55 dBA:	**48**	**53**

Road Name: First Avenue **Segment: Main Street to BNSF Railroad**

Average Daily Traffic: 8424 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 1 | Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.60	-4.60	-1.20	57.70	55.58	54.27	48.25	56.67	57.30	70 dBA:	**13**	**14**
Medium Trucks	74.83	-18.84	-4.60	-1.20	50.18	28.93	34.95	16.66	29.80	32.56	65 dBA:	**28**	**31**
Heavy Trucks	80.05	-22.80	-4.60	-1.20	51.44	26.09	22.69	27.34	33.54	33.64	60 dBA:	**60**	**66**
				Total:	**59.21**	**55.59**	**54.32**	**48.29**	**56.70**	**57.33**	55 dBA:	**130**	**143**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITHOUT PROJECT CONDITIONS | **Project: Barstow General Plan** | **Site Conditions: Soft**

Road Name: First Avenue **Segment: Irwin Road to Old Highway 58**

Average Daily Traffic: 3691 Vehicles | Vehicle Speed: 50 MPH | Vehicle Mix: 1 | Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	71.12	-6.74	-4.51	-1.20	58.67	56.55	55.24	49.22	57.64	58.27	70 dBA:	**15**	**17**
Medium Trucks	78.79	-23.98	-4.51	-1.20	49.11	27.86	33.88	15.58	28.73	31.48	65 dBA:	**32**	**36**
Heavy Trucks	83.02	-27.93	-4.51	-1.20	49.38	24.03	20.63	25.28	31.47	31.57	60 dBA:	**70**	**77**
				Total:	**59.56**	**56.56**	**55.27**	**49.24**	**57.66**	**58.29**	55 dBA:	**150**	**166**

Road Name: Irwin Road **Segment: Old Highway 58 to First Avenue**

Average Daily Traffic: 6081 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 1 | Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-3.60	-4.60	-1.20	57.96	55.83	54.52	48.51	56.93	57.56	70 dBA:	**13**	**15**
Medium Trucks	76.31	-20.84	-4.60	-1.20	49.67	28.42	34.44	16.15	29.29	32.05	65 dBA:	**29**	**32**
Heavy Trucks	81.16	-24.79	-4.60	-1.20	50.56	25.21	21.81	26.46	32.66	32.76	60 dBA:	**63**	**69**
				Total:	**59.20**	**55.85**	**54.57**	**48.54**	**56.95**	**57.58**	55 dBA:	**135**	**149**

Road Name: Riverside Drive **Segment: First Avenue to Yucca Avenue**

Average Daily Traffic: 2132 Vehicles | Vehicle Speed: 25 MPH | Vehicle Mix: 1 | Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-6.11	-4.60	-1.20	47.53	45.40	44.09	38.08	46.50	47.13	70 dBA:	**3**	**3**
Medium Trucks	71.09	-23.35	-4.60	-1.20	41.94	20.69	26.71	8.41	21.56	24.31	65 dBA:	**6**	**7**
Heavy Trucks	78.74	-27.30	-4.60	-1.20	45.63	20.28	16.88	21.53	27.73	27.83	60 dBA:	**13**	**14**
				Total:	**50.37**	**45.43**	**44.18**	**38.18**	**46.57**	**47.20**	55 dBA:	**27**	**30**

Road Name: Lenwood Road **Segment: North of Commerce Parkway**

Average Daily Traffic: 8530 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.80	-4.43	-1.20	57.69	55.31	54.02	47.97	56.40	57.03	70 dBA:	**15**	**16**
Medium Trucks	74.83	-16.67	-4.43	-1.20	52.54	33.33	25.55	34.76	40.91	40.94	65 dBA:	**32**	**34**
Heavy Trucks	80.05	-14.45	-4.43	-1.20	59.97	42.98	35.20	44.41	50.56	50.60	60 dBA:	**68**	**74**
				Total:	**62.46**	**55.59**	**54.08**	**49.69**	**57.50**	**58.00**	55 dBA:	**147**	**159**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITHOUT PROJECT CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Lenwood Road **Segment: I-15 to Mercantile Way**
Average Daily Traffic: 19860 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	1.87	-4.43	-1.20	61.36	58.98	57.69	51.64	60.07	60.70	70 dBA:	**26**	**28**
Medium Trucks	74.83	-13.00	-4.43	-1.20	56.21	37.00	29.22	38.43	44.58	44.61	65 dBA:	**56**	**60**
Heavy Trucks	80.05	-10.78	-4.43	-1.20	63.64	46.65	38.87	48.08	54.24	54.27	60 dBA:	**120**	**129**
				Total:	**66.13**	**59.26**	**57.75**	**53.36**	**61.17**	**61.68**	55 dBA:	**258**	**279**

Road Name: Lenwood Road **Segment: North of Lenwood Road**
Average Daily Traffic: 1851 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-8.43	-4.43	-1.20	51.05	48.68	47.38	41.33	49.76	50.39	70 dBA:	**5**	**6**
Medium Trucks	74.83	-23.30	-4.43	-1.20	45.90	26.69	18.91	28.12	34.27	34.31	65 dBA:	**11**	**12**
Heavy Trucks	80.05	-21.08	-4.43	-1.20	53.34	36.35	28.57	37.78	43.93	43.96	60 dBA:	**25**	**27**
				Total:	**55.82**	**48.95**	**47.45**	**43.06**	**50.87**	**51.37**	55 dBA:	**53**	**57**

Road Name: Commerce Parkway **Segment: East of Lenwood Road**
Average Daily Traffic: 6479 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.74	-4.60	-1.20	56.56	54.44	53.13	47.11	55.53	56.16	70 dBA:	**11**	**12**
Medium Trucks	74.83	-19.98	-4.60	-1.20	49.04	27.79	33.81	15.52	28.66	31.42	65 dBA:	**23**	**26**
Heavy Trucks	80.05	-23.94	-4.60	-1.20	50.30	24.95	21.55	26.20	32.40	32.50	60 dBA:	**51**	**56**
				Total:	**58.07**	**54.45**	**53.18**	**47.15**	**55.56**	**56.19**	55 dBA:	**109**	**120**

Road Name: Mercantile Way **Segment: Linda Vista Avenue to Rimrock Road**
Average Daily Traffic: 1078 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-10.53	-4.60	-1.20	48.77	46.65	45.34	39.33	47.75	48.37	70 dBA:	**3**	**4**
Medium Trucks	74.83	-27.77	-4.60	-1.20	41.25	20.00	26.02	7.73	20.88	23.63	65 dBA:	**7**	**8**
Heavy Trucks	80.05	-31.73	-4.60	-1.20	42.52	17.16	13.77	18.41	24.61	24.71	60 dBA:	**15**	**17**
				Total:	**50.28**	**46.66**	**45.39**	**39.36**	**47.78**	**48.41**	55 dBA:	**33**	**36**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITHOUT PROJECT CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: L Street **Segment: Rimrock Road to I-15**
Average Daily Traffic: 5858 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-4.27	-4.60	-1.20	59.27	57.15	55.83	49.82	58.24	58.87	70 dBA:	**16**	**18**
Medium Trucks	77.62	-21.51	-4.60	-1.20	50.31	29.06	35.08	16.79	29.93	32.68	65 dBA:	**36**	**39**
Heavy Trucks	82.14	-25.47	-4.60	-1.20	50.87	25.52	22.12	26.77	32.97	33.06	60 dBA:	**77**	**84**
				Total:	**60.31**	**57.15**	**55.87**	**49.84**	**58.26**	**58.89**	55 dBA:	**165**	**182**

Road Name: L Street **Segment: I-15 to Main Street**
Average Daily Traffic: 5858 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 1 Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-4.27	-4.51	-1.20	59.36	57.24	55.92	49.91	58.33	58.96	70 dBA:	**17**	**18**
Medium Trucks	77.62	-21.51	-4.51	-1.20	50.40	29.15	35.17	16.88	30.02	32.77	65 dBA:	**36**	**40**
Heavy Trucks	82.14	-25.47	-4.51	-1.20	50.96	25.61	22.21	26.86	33.06	33.16	60 dBA:	**78**	**86**
				Total:	**60.40**	**57.25**	**55.96**	**49.94**	**58.35**	**58.98**	55 dBA:	**167**	**184**

Road Name: L Street **Segment: L Street to H Street**
Average Daily Traffic: 7651 Vehicles Vehicle Speed: 55 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	72.73	-4.23	-4.43	-1.20	62.87	60.49	59.20	53.15	61.58	62.21	70 dBA:	**30**	**32**
Medium Trucks	79.85	-19.10	-4.43	-1.20	55.13	35.92	28.14	37.35	43.50	43.53	65 dBA:	**64**	**70**
Heavy Trucks	83.81	-16.88	-4.43	-1.20	61.31	44.32	36.54	45.74	51.90	51.93	60 dBA:	**138**	**150**
				Total:	**65.58**	**60.61**	**59.23**	**53.97**	**62.08**	**62.65**	55 dBA:	**297**	**324**

Road Name: Rimrock Road **Segment: H Street to Barstow Road**
Average Daily Traffic: 4687 Vehicles Vehicle Speed: 50 MPH Vehicle Mix: 1 Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	71.12	-5.70	-4.51	-1.20	59.71	57.59	56.27	50.26	58.68	59.31	70 dBA:	**18**	**19**
Medium Trucks	78.79	-22.94	-4.51	-1.20	50.14	28.89	34.92	16.62	29.77	32.52	65 dBA:	**38**	**42**
Heavy Trucks	83.02	-26.89	-4.51	-1.20	50.41	25.06	21.66	26.31	32.51	32.61	60 dBA:	**82**	**90**
				Total:	**60.60**	**57.59**	**56.31**	**50.28**	**58.70**	**59.33**	55 dBA:	**176**	**194**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITHOUT PROJECT CONDITIONS | **Project: Barstow General Plan** | **Site Conditions: Soft**

Road Name: Rimrock Road | **Segment: Barstow Road to Muriel Drive**

Average Daily Traffic: 5858 Vehicles | Vehicle Speed: 50 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	71.12	-4.98	-4.43	-1.20	60.51	58.14	56.85	50.80	59.23	59.86	70 dBA:	**21**	**23**
Medium Trucks	78.79	-19.85	-4.43	-1.20	53.32	34.11	26.33	35.54	41.69	41.73	65 dBA:	**45**	**49**
Heavy Trucks	83.02	-17.63	-4.43	-1.20	59.77	42.78	35.00	44.20	50.36	50.39	60 dBA:	**97**	**106**
				Total:	**63.60**	**58.28**	**56.88**	**51.76**	**59.82**	**60.38**	55 dBA:	**210**	**228**

Road Name: Rimrock Road | **Segment: Muriel Drive to Broadway Avenue**

Average Daily Traffic: 7030 Vehicles | Vehicle Speed: 45 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-3.73	-4.43	-1.20	59.99	57.62	56.32	50.27	58.70	59.33	70 dBA:	**20**	**21**
Medium Trucks	77.62	-18.60	-4.43	-1.20	53.40	34.19	26.41	35.62	41.77	41.81	65 dBA:	**42**	**46**
Heavy Trucks	82.14	-16.38	-4.43	-1.20	60.14	43.15	35.37	44.57	50.73	50.76	60 dBA:	**91**	**99**
				Total:	**63.52**	**57.79**	**56.36**	**51.42**	**59.42**	**59.96**	55 dBA:	**197**	**214**

Road Name: Rimrock Road | **Segment: Broadway Avenue to Montara Road**

Average Daily Traffic: 7030 Vehicles | Vehicle Speed: 45 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-3.73	-4.43	-1.20	59.99	57.62	56.32	50.27	58.70	59.33	70 dBA:	**20**	**21**
Medium Trucks	77.62	-18.60	-4.43	-1.20	53.40	34.19	26.41	35.62	41.77	41.81	65 dBA:	**42**	**46**
Heavy Trucks	82.14	-16.38	-4.43	-1.20	60.14	43.15	35.37	44.57	50.73	50.76	60 dBA:	**91**	**99**
				Total:	**63.52**	**57.79**	**56.36**	**51.42**	**59.42**	**59.96**	55 dBA:	**197**	**214**

Road Name: Rimrock Road | **Segment: Muriel Road to Montara Road**

Average Daily Traffic: 4687 Vehicles | Vehicle Speed: 45 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-5.49	-4.43	-1.20	58.23	55.86	54.56	48.51	56.94	57.57	70 dBA:	**15**	**16**
Medium Trucks	77.62	-20.36	-4.43	-1.20	51.64	32.43	24.65	33.86	40.01	40.05	65 dBA:	**32**	**35**
Heavy Trucks	82.14	-18.14	-4.43	-1.20	58.38	41.39	33.61	42.81	48.97	49.00	60 dBA:	**70**	**76**
				Total:	**61.76**	**56.03**	**54.60**	**49.66**	**57.66**	**58.20**	55 dBA:	**150**	**164**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITHOUT PROJECT CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Un-Named Road **Segment: 0**

Average Daily Traffic: 4687 Vehicles | Vehicle Speed: 55 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	72.73	-6.36	-4.43	-1.20	60.74	58.37	57.07	51.02	59.45	60.08	70 dBA:	**21**	**23**
Medium Trucks	79.85	-21.23	-4.43	-1.20	53.00	33.79	26.01	35.22	41.37	41.41	65 dBA:	**46**	**50**
Heavy Trucks	83.81	-19.01	-4.43	-1.20	59.18	42.19	34.41	43.62	49.77	49.80	60 dBA:	**99**	**108**
				Total:	**63.45**	**58.48**	**57.10**	**51.84**	**59.95**	**60.52**	55 dBA:	**214**	**233**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITH PROJECT CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

	Vehicle Mix 1 (Collector Secondary)				Vehicle Mix 2 (Arterial)				Vehicle Mix 3 (SR-247)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.42%	69.50%	12.90%	9.60%	92.00%	67.77%	13.89%	16.25%	97.90%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	0.70%	0.13%	0.35%	1.18%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	0.50%	0.05%	0.37%	0.92%

Road Name: Main Street **Segment: West City Limit to SR 58**

Average Daily Traffic: 9865 Vehicles Vehicle Speed: 55 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	72.73	-3.13	-4.43	-1.20	63.97	61.60	60.30	54.25	62.68	63.31	70 dBA:	**35**	**38**
Medium Trucks	79.85	-18.00	-4.43	-1.20	56.23	37.02	29.24	38.45	44.60	44.64	65 dBA:	**76**	**83**
Heavy Trucks	83.81	-15.78	-4.43	-1.20	62.41	45.42	37.64	46.85	53.00	53.04	60 dBA:	**163**	**178**
				Total:	**66.68**	**61.72**	**60.33**	**55.07**	**63.19**	**63.76**	55 dBA:	**351**	**383**

Road Name: Main Street **Segment: SR 58 to Woodham Avenue**

Average Daily Traffic: 7698 Vehicles Vehicle Speed: 55 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	72.73	-4.21	-4.43	-1.20	62.89	60.52	59.23	53.17	61.60	62.24	70 dBA:	**30**	**33**
Medium Trucks	79.85	-19.07	-4.43	-1.20	55.15	35.95	28.16	37.37	43.53	43.56	65 dBA:	**64**	**70**
Heavy Trucks	83.81	-16.86	-4.43	-1.20	61.33	44.34	36.56	45.77	51.93	51.96	60 dBA:	**138**	**151**
				Total:	**65.60**	**60.64**	**59.25**	**53.99**	**62.11**	**62.68**	55 dBA:	**298**	**325**

Road Name: Main Street **Segment: Woodham Avenue to L Street**

Average Daily Traffic: 9748 Vehicles Vehicle Speed: 55 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	72.73	-3.18	-4.43	-1.20	63.92	61.55	60.25	54.20	62.63	63.26	70 dBA:	**35**	**38**
Medium Trucks	79.85	-18.05	-4.43	-1.20	56.18	36.97	29.19	38.40	44.55	44.59	65 dBA:	**75**	**82**
Heavy Trucks	83.81	-15.83	-4.43	-1.20	62.36	45.37	37.59	46.80	52.95	52.98	60 dBA:	**162**	**177**
				Total:	**66.63**	**61.66**	**60.28**	**55.02**	**63.13**	**63.70**	55 dBA:	**349**	**380**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITH PROJECT CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Main Street **Segment: L Street to Avenue H**

Average Daily Traffic: 13401 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-0.42	-4.43	-1.20	61.32	58.95	57.65	51.60	60.03	60.66	70 dBA:	**25**	**27**
Medium Trucks	76.31	-15.28	-4.43	-1.20	55.40	36.20	28.41	37.62	43.78	43.81	65 dBA:	**53**	**58**
Heavy Trucks	81.16	-13.06	-4.43	-1.20	62.47	45.48	37.70	46.91	53.06	53.09	60 dBA:	**115**	**125**
				Total:	**65.40**	**59.16**	**57.70**	**53.00**	**60.91**	**61.44**	55 dBA:	**248**	**269**

Road Name: Main Street **Segment: Avenue H to Avenue D**

Average Daily Traffic: 14748 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	0.00	-4.43	-1.20	61.73	59.36	58.07	52.01	60.45	61.08	70 dBA:	**26**	**29**
Medium Trucks	76.31	-14.87	-4.43	-1.20	55.82	36.61	28.83	38.04	44.19	44.23	65 dBA:	**57**	**62**
Heavy Trucks	81.16	-12.65	-4.43	-1.20	62.88	45.90	38.11	47.32	53.48	53.51	60 dBA:	**123**	**133**
				Total:	**65.82**	**59.57**	**58.12**	**53.41**	**61.33**	**61.85**	55 dBA:	**264**	**286**

Road Name: Main Street **Segment: Avenue D to Avenue A**

Average Daily Traffic: 15064 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	0.09	-4.43	-1.20	61.83	59.45	58.16	52.11	60.54	61.17	70 dBA:	**27**	**29**
Medium Trucks	76.31	-14.78	-4.43	-1.20	55.91	36.70	28.92	38.13	44.28	44.32	65 dBA:	**58**	**63**
Heavy Trucks	81.16	-12.56	-4.43	-1.20	62.98	45.99	38.21	47.41	53.57	53.60	60 dBA:	**124**	**135**
				Total:	**65.91**	**59.67**	**58.21**	**53.50**	**61.42**	**61.94**	55 dBA:	**268**	**290**

Road Name: Main Street **Segment: Avenue A to First Avenue**

Average Daily Traffic: 13837 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	0.30	-4.43	-1.20	59.79	57.41	56.12	50.07	58.50	59.13	70 dBA:	**20**	**22**
Medium Trucks	74.83	-14.56	-4.43	-1.20	54.64	35.43	27.65	36.86	43.01	43.04	65 dBA:	**44**	**47**
Heavy Trucks	80.05	-12.35	-4.43	-1.20	62.07	45.08	37.30	46.51	52.67	52.70	60 dBA:	**94**	**102**
				Total:	**64.56**	**57.69**	**56.18**	**51.80**	**59.60**	**60.11**	55 dBA:	**203**	**219**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITH PROJECT CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Main Street **Segment: First Avenue to Barstow Road**

Average Daily Traffic: 14828 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	0.60	-4.43	-1.20	60.09	57.71	56.42	50.37	58.80	59.43	70 dBA:	**21**	**23**
Medium Trucks	74.83	-14.26	-4.43	-1.20	54.94	35.73	27.95	37.16	43.31	43.35	65 dBA:	**46**	**49**
Heavy Trucks	80.05	-12.05	-4.43	-1.20	62.37	45.39	37.60	46.81	52.97	53.00	60 dBA:	**99**	**106**
				Total:	**64.86**	**57.99**	**56.48**	**52.10**	**59.90**	**60.41**	55 dBA:	**212**	**229**

Road Name: Main Street **Segment: Barstow Road to Muriel Drive**

Average Daily Traffic: 12806 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-0.03	-4.43	-1.20	59.45	57.08	55.78	49.73	58.16	58.79	70 dBA:	**19**	**21**
Medium Trucks	74.83	-14.90	-4.43	-1.20	54.30	35.09	27.31	36.52	42.67	42.71	65 dBA:	**41**	**45**
Heavy Trucks	80.05	-12.68	-4.43	-1.20	61.74	44.75	36.97	46.18	52.33	52.36	60 dBA:	**89**	**97**
				Total:	**64.22**	**57.35**	**55.85**	**51.46**	**59.27**	**59.77**	55 dBA:	**192**	**208**

Road Name: Main Street **Segment: Muriel Drive to Yucca Avenue**

Average Daily Traffic: 13638 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	0.24	-4.43	-1.20	59.72	57.35	56.06	50.00	58.44	59.07	70 dBA:	**20**	**22**
Medium Trucks	74.83	-14.63	-4.43	-1.20	54.58	35.37	27.59	36.79	42.95	42.98	65 dBA:	**43**	**47**
Heavy Trucks	80.05	-12.41	-4.43	-1.20	62.01	45.02	37.24	46.45	52.60	52.64	60 dBA:	**93**	**101**
				Total:	**64.49**	**57.62**	**56.12**	**51.73**	**59.54**	**60.04**	55 dBA:	**201**	**217**

Road Name: Main Street **Segment: Yucca Avenue to Coolwater Lane**

Average Daily Traffic: 14458 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-0.09	-4.43	-1.20	61.65	59.28	57.98	51.93	60.36	60.99	70 dBA:	**26**	**28**
Medium Trucks	76.31	-14.95	-4.43	-1.20	55.73	36.53	28.74	37.95	44.11	44.14	65 dBA:	**56**	**61**
Heavy Trucks	81.16	-12.74	-4.43	-1.20	62.80	45.81	38.03	47.24	53.39	53.42	60 dBA:	**121**	**131**
				Total:	**65.73**	**59.49**	**58.03**	**53.32**	**61.24**	**61.77**	55 dBA:	**261**	**283**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITH PROJECT CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Main Street **Segment: Coolwater Lane to I-15**

Average Daily Traffic: 16556 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	0.50	-4.43	-1.20	62.24	59.86	58.57	52.52	60.95	61.58	70 dBA:	**29**	**31**
Medium Trucks	76.31	-14.37	-4.43	-1.20	56.32	37.11	29.33	38.54	44.69	44.73	65 dBA:	**61**	**67**
Heavy Trucks	81.16	-12.15	-4.43	-1.20	63.39	46.40	38.62	47.82	53.98	54.01	60 dBA:	**132**	**144**
				Total:	**66.32**	**60.08**	**58.62**	**53.91**	**61.83**	**62.36**	55 dBA:	**285**	**309**

Road Name: Main Street **Segment: I-15 to I-40**

Average Daily Traffic: 14784 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	0.01	-4.43	-1.20	61.74	59.37	58.08	52.02	60.46	61.09	70 dBA:	**26**	**29**
Medium Trucks	76.31	-14.86	-4.43	-1.20	55.83	36.62	28.84	38.05	44.20	44.24	65 dBA:	**57**	**62**
Heavy Trucks	81.16	-12.64	-4.43	-1.20	62.90	45.91	38.12	47.33	53.49	53.52	60 dBA:	**123**	**133**
				Total:	**65.83**	**59.59**	**58.13**	**53.42**	**61.34**	**61.86**	55 dBA:	**264**	**287**

Road Name: Barstow Road **Segment: Main Street to Mountain View Street**

Average Daily Traffic: 9507 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 3 | Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.06	-4.51	-1.20	58.34	55.86	55.00	50.91	58.41	58.92	70 dBA:	**17**	**18**
Medium Trucks	74.83	-20.25	-4.51	-1.20	48.87	26.53	25.13	24.82	31.47	31.73	65 dBA:	**37**	**39**
Heavy Trucks	80.05	-21.33	-4.51	-1.20	53.01	29.24	25.07	29.12	35.47	35.57	60 dBA:	**79**	**85**
				Total:	**59.82**	**55.87**	**55.00**	**50.94**	**58.45**	**58.95**	55 dBA:	**170**	**183**

Road Name: Barstow Road **Segment: Mountain View Street to Virginia Way**

Average Daily Traffic: 14833 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 3 | Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	0.87	-4.51	-1.20	60.27	57.79	56.93	52.84	60.35	60.85	70 dBA:	**23**	**25**
Medium Trucks	74.83	-18.31	-4.51	-1.20	50.80	28.46	27.06	26.75	33.40	33.67	65 dBA:	**49**	**53**
Heavy Trucks	80.05	-19.40	-4.51	-1.20	54.94	31.17	27.00	31.05	37.40	37.51	60 dBA:	**106**	**114**
				Total:	**61.75**	**57.81**	**56.94**	**52.88**	**60.38**	**60.88**	55 dBA:	**228**	**247**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITH PROJECT CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Barstow Road **Segment: Armory Road to Rimrock Road**
Average Daily Traffic: 12924 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 3 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-0.82	-4.43	-1.20	62.90	60.42	59.56	55.47	62.98	63.48	70 dBA:	**34**	**37**
Medium Trucks	77.62	-20.00	-4.43	-1.20	51.99	29.65	28.25	27.94	34.59	34.86	65 dBA:	**74**	**79**
Heavy Trucks	82.14	-21.09	-4.43	-1.20	55.43	31.66	27.49	31.54	37.89	38.00	60 dBA:	**158**	**171**
				Total:	**63.91**	**60.43**	**59.56**	**55.49**	**63.00**	**63.50**	55 dBA:	**341**	**369**

Road Name: Barstow Road **Segment: South of Rimrock Road**
Average Daily Traffic: 7599 Vehicles Vehicle Speed: 55 MPH Vehicle Mix: 3 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	72.73	-3.99	-4.43	-1.20	63.11	60.63	59.76	55.67	63.18	63.68	70 dBA:	**35**	**38**
Medium Trucks	79.85	-23.18	-4.43	-1.20	51.05	28.70	27.30	26.99	33.65	33.91	65 dBA:	**76**	**82**
Heavy Trucks	83.81	-24.26	-4.43	-1.20	53.92	30.15	25.99	30.04	36.39	36.49	60 dBA:	**163**	**176**
				Total:	**63.84**	**60.63**	**59.77**	**55.69**	**63.19**	**63.70**	55 dBA:	**352**	**380**

Road Name: Armory Road **Segment: Barstow Road to Eleventh Street**
Average Daily Traffic: 7651 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 1 Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-3.11	-4.51	-1.20	60.52	58.40	57.08	51.07	59.49	60.12	70 dBA:	**20**	**22**
Medium Trucks	77.62	-20.35	-4.51	-1.20	51.56	30.31	36.33	18.04	31.18	33.93	65 dBA:	**43**	**47**
Heavy Trucks	82.14	-24.31	-4.51	-1.20	52.12	26.77	23.37	28.02	34.22	34.31	60 dBA:	**93**	**102**
				Total:	**61.56**	**58.41**	**57.12**	**51.09**	**59.51**	**60.14**	55 dBA:	**200**	**220**

Road Name: Armory Road **Segment: Eleventh Street to Muriel Drive**
Average Daily Traffic: 7991 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 1 Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.93	-4.51	-1.20	60.71	58.59	57.27	51.26	59.68	60.31	70 dBA:	**21**	**23**
Medium Trucks	77.62	-20.16	-4.51	-1.20	51.75	30.50	36.52	18.23	31.37	34.12	65 dBA:	**44**	**49**
Heavy Trucks	82.14	-24.12	-4.51	-1.20	52.31	26.96	23.56	28.21	34.41	34.50	60 dBA:	**95**	**105**
				Total:	**61.75**	**58.59**	**57.31**	**51.28**	**59.70**	**60.33**	55 dBA:	**206**	**227**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITH PROJECT CONDITIONS | **Project: Barstow General Plan** | **Site Conditions: Soft**

Road Name: Armory Road | **Segment: Muriel Drive to Broadway Avenue**

Average Daily Traffic: 8202 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 1 | Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-2.30	-4.51	-1.20	59.35	57.23	55.91	49.90	58.32	58.95	70 dBA:	**17**	**18**
Medium Trucks	76.31	-19.54	-4.51	-1.20	51.06	29.81	35.83	17.54	30.68	33.44	65 dBA:	**36**	**40**
Heavy Trucks	81.16	-23.49	-4.51	-1.20	51.95	26.60	23.20	27.85	34.05	34.15	60 dBA:	**78**	**85**
				Total:	**60.59**	**57.24**	**55.96**	**49.93**	**58.34**	**58.97**	55 dBA:	**167**	**184**

Road Name: Armory Road | **Segment: Broadway Avenue to Higgins Road**

Average Daily Traffic: 5378 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 1 | Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-4.13	-4.51	-1.20	57.52	55.39	54.08	48.07	56.49	57.11	70 dBA:	**13**	**14**
Medium Trucks	76.31	-21.37	-4.51	-1.20	49.23	27.98	34.00	15.71	28.85	31.60	65 dBA:	**27**	**30**
Heavy Trucks	81.16	-25.33	-4.51	-1.20	50.12	24.77	21.37	26.02	32.22	32.31	60 dBA:	**59**	**64**
				Total:	**58.76**	**55.40**	**54.12**	**48.10**	**56.51**	**57.14**	55 dBA:	**126**	**139**

Road Name: Armory Road | **Segment: Higgins Road to Montara Road**

Average Daily Traffic: 5601 Vehicles | Vehicle Speed: 25 MPH | Vehicle Mix: 1 | Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-1.92	-4.51	-1.20	51.81	49.69	48.38	42.36	50.78	51.41	70 dBA:	**5**	**6**
Medium Trucks	71.09	-19.15	-4.51	-1.20	46.22	24.97	30.99	12.70	25.84	28.60	65 dBA:	**11**	**13**
Heavy Trucks	78.74	-23.11	-4.51	-1.20	49.92	24.57	21.17	25.82	32.02	32.11	60 dBA:	**25**	**27**
				Total:	**54.65**	**49.72**	**48.46**	**42.46**	**50.86**	**51.48**	55 dBA:	**53**	**58**

Road Name: Montara Road | **Segment: I-40 to Armory Road**

Average Daily Traffic: 14784 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	0.01	-4.43	-1.20	61.74	59.37	58.08	52.02	60.46	61.09	70 dBA:	**26**	**29**
Medium Trucks	76.31	-14.86	-4.43	-1.20	55.83	36.62	28.84	38.05	44.20	44.24	65 dBA:	**57**	**62**
Heavy Trucks	81.16	-12.64	-4.43	-1.20	62.90	45.91	38.12	47.33	53.49	53.52	60 dBA:	**123**	**133**
				Total:	**65.83**	**59.59**	**58.13**	**53.42**	**61.34**	**61.86**	55 dBA:	**264**	**287**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITH PROJECT CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Montara Road **Segment: Armory Road to Rimrock Road**
Average Daily Traffic: 7473 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-2.95	-4.43	-1.20	58.78	56.41	55.12	49.06	57.49	58.12	70 dBA:	**17**	**18**
Medium Trucks	76.31	-17.82	-4.43	-1.20	52.87	33.66	25.88	35.09	41.24	41.27	65 dBA:	**36**	**39**
Heavy Trucks	81.16	-15.60	-4.43	-1.20	59.93	42.94	35.16	44.37	50.52	50.56	60 dBA:	**78**	**84**
				Total:	**62.86**	**56.62**	**55.16**	**50.46**	**58.37**	**58.90**	55 dBA:	**168**	**182**

Road Name: Muriel Drive **Segment: North of Armory Road**
Average Daily Traffic: 9924 Vehicles Vehicle Speed: 25 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	0.57	-4.60	-1.20	54.21	52.08	50.77	44.76	53.18	53.80	70 dBA:	**8**	**8**
Medium Trucks	71.09	-16.67	-4.60	-1.20	48.61	27.37	33.39	15.09	28.24	30.99	65 dBA:	**16**	**18**
Heavy Trucks	78.74	-20.63	-4.60	-1.20	52.31	26.96	23.56	28.21	34.41	34.50	60 dBA:	**35**	**39**
				Total:	**57.04**	**52.11**	**50.86**	**44.86**	**53.25**	**53.88**	55 dBA:	**76**	**84**

Road Name: Muriel Drive **Segment: Armory Road to Rimrock Road**
Average Daily Traffic: 5741 Vehicles Vehicle Speed: 40 MPH Vehicle Mix: 1 Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-3.85	-4.51	-1.20	57.80	55.68	54.36	48.35	56.77	57.40	70 dBA:	**13**	**15**
Medium Trucks	76.31	-21.09	-4.51	-1.20	49.51	28.26	34.28	15.99	29.14	31.89	65 dBA:	**28**	**31**
Heavy Trucks	81.16	-25.04	-4.51	-1.20	50.40	25.05	21.65	26.30	32.50	32.60	60 dBA:	**61**	**67**
				Total:	**59.04**	**55.69**	**54.41**	**48.38**	**56.79**	**57.42**	55 dBA:	**132**	**145**

Road Name: Windy Pass **Segment: Barstow Road to Eleventh Street**
Average Daily Traffic: 1289 Vehicles Vehicle Speed: 25 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-8.30	-4.60	-1.20	45.34	43.22	41.91	35.89	44.31	44.94	70 dBA:	**2**	**2**
Medium Trucks	71.09	-25.53	-4.60	-1.20	39.75	18.50	24.52	6.23	19.37	22.12	65 dBA:	**4**	**5**
Heavy Trucks	78.74	-29.49	-4.60	-1.20	43.45	18.10	14.70	19.35	25.55	25.64	60 dBA:	**9**	**10**
				Total:	**48.18**	**43.25**	**41.99**	**35.99**	**44.38**	**45.01**	55 dBA:	**20**	**22**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITH PROJECT CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Mountain View Street **Segment: East of Barstow Road**

Average Daily Traffic: 3456 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 1 | Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-5.47	-4.60	-1.20	53.83	51.71	50.40	44.39	52.80	53.43	70 dBA:	**7**	**8**
Medium Trucks	74.83	-22.71	-4.60	-1.20	46.31	25.06	31.08	12.79	25.94	28.69	65 dBA:	**15**	**17**
Heavy Trucks	80.05	-26.67	-4.60	-1.20	47.58	22.22	18.82	23.47	29.67	29.77	60 dBA:	**33**	**37**
				Total:	**55.34**	**51.72**	**50.45**	**44.42**	**52.83**	**53.46**	55 dBA:	**72**	**79**

Road Name: Mountain View Street **Segment: West of Barstow Road**

Average Daily Traffic: 5155 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 1 | Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-3.74	-4.60	-1.20	55.57	53.45	52.13	46.12	54.54	55.17	70 dBA:	**9**	**10**
Medium Trucks	74.83	-20.98	-4.60	-1.20	48.05	26.80	32.82	14.53	27.67	30.42	65 dBA:	**20**	**22**
Heavy Trucks	80.05	-24.93	-4.60	-1.20	49.31	23.96	20.56	25.21	31.41	31.50	60 dBA:	**43**	**48**
				Total:	**57.07**	**53.46**	**52.19**	**46.16**	**54.57**	**55.20**	55 dBA:	**94**	**103**

Road Name: Avenue A **Segment: South of Main Street**

Average Daily Traffic: 1875 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 1 | Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-8.13	-4.60	-1.20	51.18	49.05	47.74	41.73	50.15	50.78	70 dBA:	**5**	**5**
Medium Trucks	74.83	-25.37	-4.60	-1.20	43.66	22.41	28.43	10.14	23.28	26.03	65 dBA:	**10**	**11**
Heavy Trucks	80.05	-29.32	-4.60	-1.20	44.92	19.57	16.17	20.82	27.02	27.11	60 dBA:	**22**	**24**
				Total:	**52.68**	**49.07**	**47.80**	**41.77**	**50.18**	**50.81**	55 dBA:	**48**	**53**

Road Name: First Avenue **Segment: Main Street to BNSF Railroad**

Average Daily Traffic: 9130 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 1 | Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.25	-4.60	-1.20	58.05	55.93	54.62	48.60	57.02	57.65	70 dBA:	**14**	**15**
Medium Trucks	74.83	-18.49	-4.60	-1.20	50.53	29.28	35.30	17.01	30.15	32.91	65 dBA:	**30**	**33**
Heavy Trucks	80.05	-22.45	-4.60	-1.20	51.79	26.44	23.04	27.69	33.89	33.99	60 dBA:	**64**	**70**
				Total:	**59.56**	**55.94**	**54.67**	**48.64**	**57.05**	**57.68**	55 dBA:	**137**	**151**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITH PROJECT CONDITIONS | **Project: Barstow General Plan** | **Site Conditions: Soft**

Road Name: First Avenue **Segment: Irwin Road to Old Highway 58**

Average Daily Traffic: 3818 Vehicles | Vehicle Speed: 50 MPH | Vehicle Mix: 1 | Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	71.12	-6.59	-4.51	-1.20	58.82	56.70	55.38	49.37	57.79	58.42	70 dBA:	**15**	**17**
Medium Trucks	78.79	-23.83	-4.51	-1.20	49.25	28.00	34.02	15.73	28.88	31.63	65 dBA:	**33**	**37**
Heavy Trucks	83.02	-27.78	-4.51	-1.20	49.52	24.17	20.77	25.42	31.62	31.72	60 dBA:	**71**	**79**
				Total:	**59.71**	**56.70**	**55.42**	**49.39**	**57.81**	**58.44**	55 dBA:	**154**	**169**

Road Name: Irwin Road **Segment: Old Highway 58 to First Avenue**

Average Daily Traffic: 6335 Vehicles | Vehicle Speed: 40 MPH | Vehicle Mix: 1 | Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	67.36	-3.42	-4.60	-1.20	58.14	56.01	54.70	48.69	57.11	57.73	70 dBA:	**14**	**15**
Medium Trucks	76.31	-20.66	-4.60	-1.20	49.85	28.60	34.62	16.33	29.47	32.22	65 dBA:	**30**	**33**
Heavy Trucks	81.16	-24.62	-4.60	-1.20	50.74	25.39	21.99	26.64	32.84	32.93	60 dBA:	**64**	**71**
				Total:	**59.38**	**56.02**	**54.74**	**48.72**	**57.13**	**57.76**	55 dBA:	**139**	**153**

Road Name: Riverside Drive **Segment: First Avenue to Yucca Avenue**

Average Daily Traffic: 2319 Vehicles | Vehicle Speed: 25 MPH | Vehicle Mix: 1 | Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	59.44	-5.75	-4.60	-1.20	47.89	45.77	44.46	38.44	46.86	47.49	70 dBA:	**3**	**3**
Medium Trucks	71.09	-22.98	-4.60	-1.20	42.30	21.05	27.07	8.78	21.92	24.68	65 dBA:	**6**	**7**
Heavy Trucks	78.74	-26.94	-4.60	-1.20	46.00	20.65	17.25	21.90	28.10	28.19	60 dBA:	**13**	**15**
				Total:	**50.73**	**45.80**	**44.54**	**38.54**	**46.93**	**47.56**	55 dBA:	**29**	**32**

Road Name: Lenwood Road **Segment: North of Commerce Parkway**

Average Daily Traffic: 10991 Vehicles | Vehicle Speed: 35 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-0.70	-4.43	-1.20	58.79	56.41	55.12	49.07	57.50	58.13	70 dBA:	**17**	**19**
Medium Trucks	74.83	-15.56	-4.43	-1.20	53.64	34.43	26.65	35.86	42.01	42.04	65 dBA:	**37**	**40**
Heavy Trucks	80.05	-13.35	-4.43	-1.20	61.07	44.08	36.30	45.51	51.67	51.70	60 dBA:	**81**	**87**
				Total:	**63.56**	**56.69**	**55.18**	**50.80**	**58.60**	**59.11**	55 dBA:	**174**	**188**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITH PROJECT CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Lenwood Road **Segment: I-15 to Mercantile Way**
Average Daily Traffic: 21552 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	2.23	-4.43	-1.20	61.71	59.34	58.05	51.99	60.42	61.05	70 dBA:	**27**	**29**
Medium Trucks	74.83	-12.64	-4.43	-1.20	56.56	37.35	29.57	38.78	44.94	44.97	65 dBA:	**59**	**63**
Heavy Trucks	80.05	-10.42	-4.43	-1.20	64.00	47.01	39.23	48.44	54.59	54.62	60 dBA:	**126**	**137**
				Total:	**66.48**	**59.61**	**58.11**	**53.72**	**61.53**	**62.03**	55 dBA:	**272**	**294**

Road Name: Lenwood Road **Segment: South of Mercantile Way**
Average Daily Traffic: 3971 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-5.12	-4.43	-1.20	54.37	51.99	50.70	44.65	53.08	53.71	70 dBA:	**9**	**10**
Medium Trucks	74.83	-19.99	-4.43	-1.20	49.22	30.01	22.23	31.44	37.59	37.62	65 dBA:	**19**	**21**
Heavy Trucks	80.05	-17.77	-4.43	-1.20	56.65	39.66	31.88	41.09	47.24	47.28	60 dBA:	**41**	**44**
				Total:	**59.14**	**52.27**	**50.76**	**46.37**	**54.18**	**54.68**	55 dBA:	**88**	**95**

Road Name: Commerce Parkway **Segment: North of Lenwood Road**
Average Daily Traffic: 9985 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-0.87	-4.60	-1.20	58.44	56.32	55.01	48.99	57.41	58.04	70 dBA:	**15**	**16**
Medium Trucks	74.83	-18.10	-4.60	-1.20	50.92	29.67	35.69	17.40	30.54	33.30	65 dBA:	**31**	**35**
Heavy Trucks	80.05	-22.06	-4.60	-1.20	52.18	26.83	23.43	28.08	34.28	34.38	60 dBA:	**68**	**74**
				Total:	**59.94**	**56.33**	**55.06**	**49.03**	**57.44**	**58.07**	55 dBA:	**145**	**160**

Road Name: Mercantile Way **Segment: East of Lenwood Road**
Average Daily Traffic: 1078 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-10.53	-4.60	-1.20	48.77	46.65	45.34	39.33	47.75	48.37	70 dBA:	**3**	**4**
Medium Trucks	74.83	-27.77	-4.60	-1.20	41.25	20.00	26.02	7.73	20.88	23.63	65 dBA:	**7**	**8**
Heavy Trucks	80.05	-31.73	-4.60	-1.20	42.52	17.16	13.77	18.41	24.61	24.71	60 dBA:	**15**	**17**
				Total:	**50.28**	**46.66**	**45.39**	**39.36**	**47.78**	**48.41**	55 dBA:	**33**	**36**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITH PROJECT CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: L Street **Segment: Linda Vista Avenue to Rimrock Road**
Average Daily Traffic: 5874 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.75 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-4.26	-4.60	-1.20	59.28	57.16	55.84	49.83	58.25	58.88	70 dBA:	**17**	**18**
Medium Trucks	77.62	-21.50	-4.60	-1.20	50.32	29.07	35.09	16.80	29.94	32.69	65 dBA:	**36**	**39**
Heavy Trucks	82.14	-25.46	-4.60	-1.20	50.88	25.53	22.13	26.78	32.98	33.08	60 dBA:	**77**	**84**
				Total:	**60.32**	**57.17**	**55.88**	**49.86**	**58.27**	**58.90**	55 dBA:	**165**	**182**

Road Name: L Street **Segment: Rimrock Road to I-15**
Average Daily Traffic: 6898 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 1 Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-3.56	-4.51	-1.20	60.07	57.95	56.63	50.62	59.04	59.67	70 dBA:	**19**	**21**
Medium Trucks	77.62	-20.80	-4.51	-1.20	51.11	29.86	35.88	17.59	30.73	33.48	65 dBA:	**40**	**44**
Heavy Trucks	82.14	-24.76	-4.51	-1.20	51.67	26.32	22.92	27.57	33.77	33.87	60 dBA:	**87**	**95**
				Total:	**61.11**	**57.96**	**56.67**	**50.64**	**59.06**	**59.69**	55 dBA:	**187**	**205**

Road Name: L Street **Segment: I-15 to Main Street**
Average Daily Traffic: 8446 Vehicles Vehicle Speed: 55 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	72.73	-3.80	-4.43	-1.20	63.30	60.92	59.63	53.58	62.01	62.64	70 dBA:	**32**	**35**
Medium Trucks	79.85	-18.67	-4.43	-1.20	55.56	36.35	28.57	37.77	43.93	43.96	65 dBA:	**68**	**74**
Heavy Trucks	83.81	-16.45	-4.43	-1.20	61.74	44.75	36.97	46.17	52.33	52.36	60 dBA:	**147**	**160**
				Total:	**66.01**	**61.04**	**59.66**	**54.40**	**62.51**	**63.08**	55 dBA:	**317**	**346**

Road Name: Rimrock Road **Segment: L Street to H Street**
Average Daily Traffic: 4834 Vehicles Vehicle Speed: 50 MPH Vehicle Mix: 1 Roadway Classification: Secondary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 98.37 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	71.12	-5.57	-4.51	-1.20	59.84	57.72	56.41	50.40	58.81	59.44	70 dBA:	**18**	**20**
Medium Trucks	78.79	-22.80	-4.51	-1.20	50.28	29.03	35.05	16.76	29.90	32.65	65 dBA:	**39**	**43**
Heavy Trucks	83.02	-26.76	-4.51	-1.20	50.55	25.20	21.80	26.45	32.65	32.74	60 dBA:	**84**	**92**
				Total:	**60.74**	**57.73**	**56.44**	**50.41**	**58.83**	**59.46**	55 dBA:	**180**	**198**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITH PROJECT CONDITIONS

Project: Barstow General Plan
Site Conditions: Soft

Road Name: Rimrock Road **Segment: H Street to Barstow Road**

Average Daily Traffic: 5907 Vehicles | Vehicle Speed: 50 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	71.12	-4.94	-4.43	-1.20	60.55	58.18	56.89	50.83	59.26	59.89	70 dBA:	**21**	**23**
Medium Trucks	78.79	-19.81	-4.43	-1.20	53.36	34.15	26.37	35.58	41.73	41.76	65 dBA:	**45**	**49**
Heavy Trucks	83.02	-17.59	-4.43	-1.20	59.80	42.81	35.03	44.24	50.39	50.43	60 dBA:	**98**	**107**
				Total:	**63.63**	**58.32**	**56.92**	**51.80**	**59.86**	**60.42**	55 dBA:	**211**	**230**

Road Name: Rimrock Road **Segment: Barstow Road to Muriel Drive**

Average Daily Traffic: 7530 Vehicles | Vehicle Speed: 45 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-3.43	-4.43	-1.20	60.29	57.92	56.62	50.57	59.00	59.63	70 dBA:	**21**	**22**
Medium Trucks	77.62	-18.30	-4.43	-1.20	53.70	34.49	26.71	35.92	42.07	42.11	65 dBA:	**44**	**48**
Heavy Trucks	82.14	-16.08	-4.43	-1.20	60.44	43.45	35.66	44.87	51.03	51.06	60 dBA:	**96**	**104**
				Total:	**63.82**	**58.09**	**56.66**	**51.72**	**59.72**	**60.26**	55 dBA:	**206**	**224**

Road Name: Rimrock Road **Segment: Muriel Drive to Broadway Avenue**

Average Daily Traffic: 7131 Vehicles | Vehicle Speed: 45 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-3.67	-4.43	-1.20	60.05	57.68	56.39	50.33	58.76	59.39	70 dBA:	**20**	**22**
Medium Trucks	77.62	-18.53	-4.43	-1.20	53.46	34.25	26.47	35.68	41.83	41.87	65 dBA:	**43**	**47**
Heavy Trucks	82.14	-16.32	-4.43	-1.20	60.20	43.21	35.43	44.64	50.79	50.82	60 dBA:	**92**	**100**
				Total:	**63.58**	**57.85**	**56.42**	**51.48**	**59.48**	**60.03**	55 dBA:	**199**	**216**

Road Name: Rimrock Road **Segment: Broadway Avenue to Montara Road**

Average Daily Traffic: 4721 Vehicles | Vehicle Speed: 45 MPH | Vehicle Mix: 2 | Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-5.46	-4.43	-1.20	58.26	55.89	54.59	48.54	56.97	57.60	70 dBA:	**15**	**16**
Medium Trucks	77.62	-20.33	-4.43	-1.20	51.67	32.46	24.68	33.89	40.04	40.08	65 dBA:	**33**	**35**
Heavy Trucks	82.14	-18.11	-4.43	-1.20	58.41	41.42	33.64	42.85	49.00	49.03	60 dBA:	**70**	**76**
				Total:	**61.79**	**56.06**	**54.63**	**49.69**	**57.69**	**58.23**	55 dBA:	**151**	**164**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: YEAR 2020 WITH PROJECT CONDITIONS **Project: Barstow General Plan**

Site Conditions: Soft

Road Name: Un-Named Road **Segment: Muriel Road to Montara Road**

Average Daily Traffic: 4735 Vehicles Vehicle Speed: 55 MPH Vehicle Mix: 2 Roadway Classification: Primary Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 97.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	72.73	-6.32	-4.43	-1.20	60.78	58.41	57.12	51.06	59.49	60.13	70 dBA:	**22**	**24**
Medium Trucks	79.85	-21.18	-4.43	-1.20	53.04	33.83	26.05	35.26	41.42	41.45	65 dBA:	**46**	**51**
Heavy Trucks	83.81	-18.97	-4.43	-1.20	59.22	42.23	34.45	43.66	49.81	49.85	60 dBA:	**100**	**109**
				Total:	**63.49**	**58.53**	**57.14**	**51.88**	**60.00**	**60.57**	55 dBA:	**215**	**235**