U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
WESTERN-PACIFIC REGION

DRAFT
WRITTEN RE-EVALUATION OF FAA's MAY 21, 2021, COMBINED FINAL ENVIRONMENTAL IMPACT STATEMENT AND RECORD OF DECISION

Proposed Replacement Passenger Terminal Project

Bob Hope "Hollywood Burbank" Airport
Burbank, Los Angeles County, California

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GENERAL INFORMATION ABOUT THIS DOCUMENT

WHAT'S IN THIS DOCUMENT? This document is the Federal Aviation Administration's (FAA) Written Re-evaluation for the proposed replacement terminal building and associated projects (Proposed Project) at Bob Hope "Hollywood Burbank" Airport (Airport) located in Burbank, Los Angeles County, California. The Proposed Project would not result in changes to the runway configuration, aircraft fleet mix, number of operations, time of aircraft operations, air traffic procedures, or airspace. This document provides the supplemental analysis required by the U.S. Court of Appeals for the Ninth Circuit (the Court) related to construction noise resulting from the Proposed Project. The Written Re-evaluation of the Proposed Project supplements the analysis and determinations in the FAA's 2021 Final Environmental Impact Statement (FEIS) and approved in the FAA's ROD dated May 21, 2021. FAA has prepared this Written Re-evaluation pursuant to Section 9-2 of FAA Order 1050.1F, which directs the FAA to determine whether contents of a document remain valid, or a supplemental environmental document is required when there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.

BACKGROUND. In November 2016, voters in the City of Burbank approved a ballot measure to build a new 14-gate replacement passenger terminal building and associated projects. The Authority then submitted an Airport Layout Plan (ALP) to the FAA depicting the existing and planned future locations of runways, taxiways, aircraft parking aprons, terminal buildings, and other associated facilities at the airport for approval. An EIS was prepared, and the FAA issued a combined Final EIS and ROD approving the Proposed Project on May 21, 2021. The City of Los Angeles challenged FAA's decision in August 2021. On March 29, 2023, the Court held that FAA's environmental review largely complied with the National Environmental Policy Act (NEPA) but remanded the matter to FAA for additional, limited environmental review of noise impacts from simultaneous operation of construction equipment associated with the Proposed Project.

WHAT SHOULD YOU DO? Read the Written Re-evaluation to understand the supplemental review that FAA completed regarding the Proposed Project at the Airport. Copies of the document are available as described in Section 4 (Public Review). If you have important information you believe has **not** been considered in this Written Re-Evaluation, you may submit your comments as described in Section 4 by 5:00 PM Pacific Standard Time on Wednesday, November 22, 2023.

Table of Contents

List of Tables

List of Figures

Appendices

1 INTRODUCTION AND SUMMARY

This document is a Written Re-evaluation of the Federal Aviation Administration's (FAA) combined Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) issued in May 2021 for the proposed replacement passenger terminal building and associated projects at Bob Hope "Hollywood Burbank" Airport (the Airport). The Airport is owned and operated by the Burbank-Glendale-Pasadena Airport Authority (the Authority), the Airport's sponsor. The Authority requested the Federal Aviation Administration (FAA) take the federal action of approval of those portions of the Airport Layout Plan (ALP) that depict the Proposed Project. In May 2021, FAA issued a Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) that approved the Proposed Project.

Replacing the existing passenger terminal at the Airport has been a work in progress for many decades. In 2000, voters in the City of Burbank approved a ballot measure that required voter approval for any new passenger terminal project.[1] In July 2016 the Authority prepared an Environmental Impact Report (EIR) to comply with the California Environmental Quality Act (CEQA) for the Proposed Project. Then, in November 2016, voters in the City of Burbank approved a ballot measure to build a new 14-gate replacement passenger terminal building and associated projects. The Authority then submitted an Airport Layout Plan (ALP) to the FAA depicting the existing and planned future locations of runways, taxiways, aircraft parking aprons, terminal buildings, and other associated facilities at the airport for approval. A Draft EIS (DEIS) was published in August 2020 and made available for public comment. All comments the FAA received on the DEIS were addressed in the FEIS.

Following the FAA's issuance of the combined FEIS and ROD on May 21, 2021, the City of Los Angeles filed a petition for review with the U.S. Court of Appeals for the Ninth Circuit (the Court) of the FAA's decision regarding the Proposed Project on July 12, 2021, claiming, among other things, that the FEIS did not adequately analyze the noise impacts from construction on nearby residents. The Court held that FAA had complied with NEPA in many respects and rejected most of Los Angeles's claims.[2] But the Court found that the FAA's analysis of construction equipment noise was insufficient and granted the petition limited to that analysis. It remanded the case back to FAA to address this deficiency in its construction noise analysis as well as the resulting deficiencies in the environmental justice and cumulative impacts analyses. The Court also required that the FAA review the City

[1] Hollywood Burbank Airport, The Path to a 14 Gate Replacement, October 26, 2021. Accessed: https://elevatebur.com/news/the-path-to-a-14-gate-replacement-terminal/, August 2023.

[2] *City of Los Angeles v. FAA*, 63 F.4th 835 (9th Cir. 2023).

of Los Angeles's noise standards to determine if the Proposed Project would be consistent with those standards.[3]

The Court outlined the supplemental analyses needed related to construction noise in the following four specific areas:

- construction noise for when multiple pieces of construction equipment are in use at the same time for each phase of construction;
- a comparison of the construction noise with the City of Los Angeles's noise standards;
- potential noise impacts on communities with environmental justice concerns based on the construction noise for when multiple pieces of construction equipment are in use at the same time for each phase of construction; and
- cumulative noise based on the construction noise for when multiple pieces of construction equipment are in use at the same time for each phase of construction.

WRITTEN RE-EVALUATION STANDARD

In accordance with FAA Order 1050.1F, *Environmental Impacts: Policies and* Procedures, paragraph 9-2, a written re-evaluation is a document used to determine whether the contents of a previously prepared environmental document remain valid or a new or supplemental environmental document is required where there is new information presented. A supplemental EIS is not required if the written re-evaluation indicates that the Proposed Project conforms to projects in the previous EIS, data and analyses are still substantially valid, and there is no significant new circumstances or information relevant to environmental concerns and bearing on the Proposed Project or its impacts, and pertinent conditions and requirements of the prior approval have been, or will be, in the current action.

Here, the Court is requiring FAA to address the deficiency in the construction noise analysis in the EIS. To comply with the Court's directive, FAA obtained additional information specific to noise generated by construction equipment. The FAA also conducted further environmental analysis of construction noise and related analysis of cumulative impacts and environmental justice to confirm whether the FAA's EIS analysis and conclusions remain valid. This written re-evaluation provides

[3] City of Los Angeles v. Federal Aviation Administration, 63 F.4th 835 (9th Cir. 2023).

additional information and environmental analysis of noise generated by construction equipment.

2 SUPPLEMENTAL ANALYSIS

2.1 Noise Measurement and the Effects of Noise on People

Noise is defined as unwanted sound, sound that disturbs routine activities or quiet, and/or causes feelings of annoyance. Whether sound is interpreted as pleasant or unpleasant depends largely on the listener's current activity, past experience, and attitude toward the source.

Sound is transmitted by alternating compression and decompression in air pressure. These relatively small changes in atmospheric pressure are called sound waves. The measurement and human perception of sound involves two physical characteristics—intensity and frequency. Intensity is a measure of the strength or magnitude of the sound vibrations and is expressed in terms of the sound pressure level (SPL). The higher the SPL, the more intense is the perception of that sound. The other characteristic is sound frequency or "pitch"—the speed of vibration. Frequencies are expressed in terms of cycles per second or hertz (Hz). Low frequency sounds might be characterized as a rumble or roar, while high frequency sounds are typified by sirens or screeches. Noise analysis accounts for both of these characteristics in the units used to measure sound.

2.1.1 Sound Level Intensity

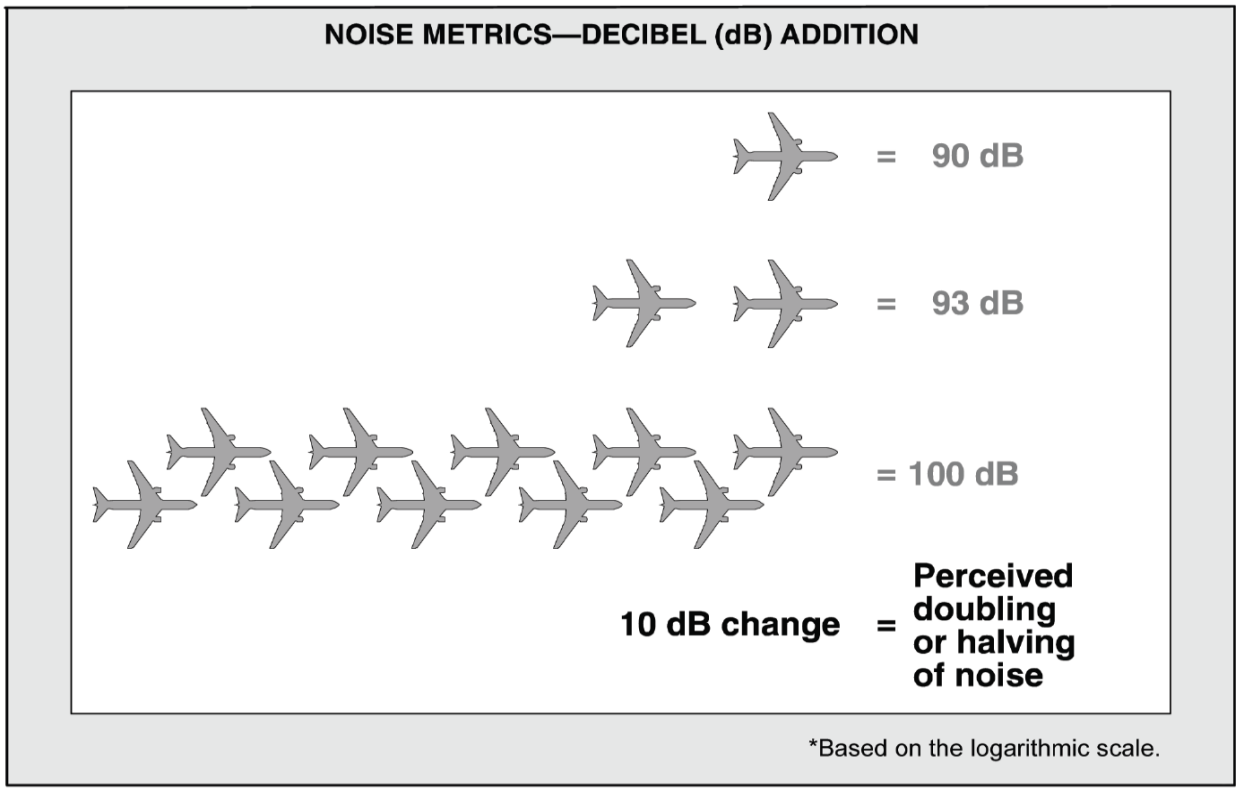
The human ear is sensitive to an extremely wide range of sound intensity, which covers a relative scale of 1 to 100,000,000. Representation of sound intensity using a linear index becomes difficult because of this wide range. The decibel (dB), a logarithmic measure of the magnitude of sound, expresses this range of energy levels using a smaller range of values. For most purposes, sound levels between 0 dB, the approximate threshold of hearing, and 130 dB, the threshold of pain, represent the range of interest.

As a logarithmic unit of measurement, the decibel cannot be added or subtracted linearly, as shown in **Figure 2-1**. Some simple guidelines for understanding changes in noise levels follow.

- If two sounds of the same level are added, the sound level increases by approximately 3 dB. For example: 60 dB + 60 dB = 63 dB.
- The sum of two sounds of a different level is only slightly higher than the louder level. For example: 60 dB + 70 dB = 70.4 dB.
- Sound from a "point source," such as construction equipment, decreases approximately 6 dB for each doubling of distance.

- Although the human ear can detect a sound change as faint as 1 dB, the typical person does not perceive changes of less than approximately 3 dB.
- A 10 dB change in sound level is perceived by the average person as a doubling, or halving, of the sound's loudness.

Figure 2-1
Decibel Addition



Humans are most sensitive to frequencies near the normal range of speech communications. "A-weighting" reflects this sensitivity by emphasizing midrange frequencies and de-emphasizing high and low frequencies. The A-weighted decibel (dBA) provides a better prediction of human reaction to environmental noise than the un-weighted decibel and is the metric most frequently used in noise compatibility planning.

2.1.2 Single-Event Metrics

Maximum A-Weighted Sound Level (Lmax). The maximum, or peak, sound level during an event. The metric only accounts for the highest A-weighted sound level measured during an event, not for the duration of the event. For example, as

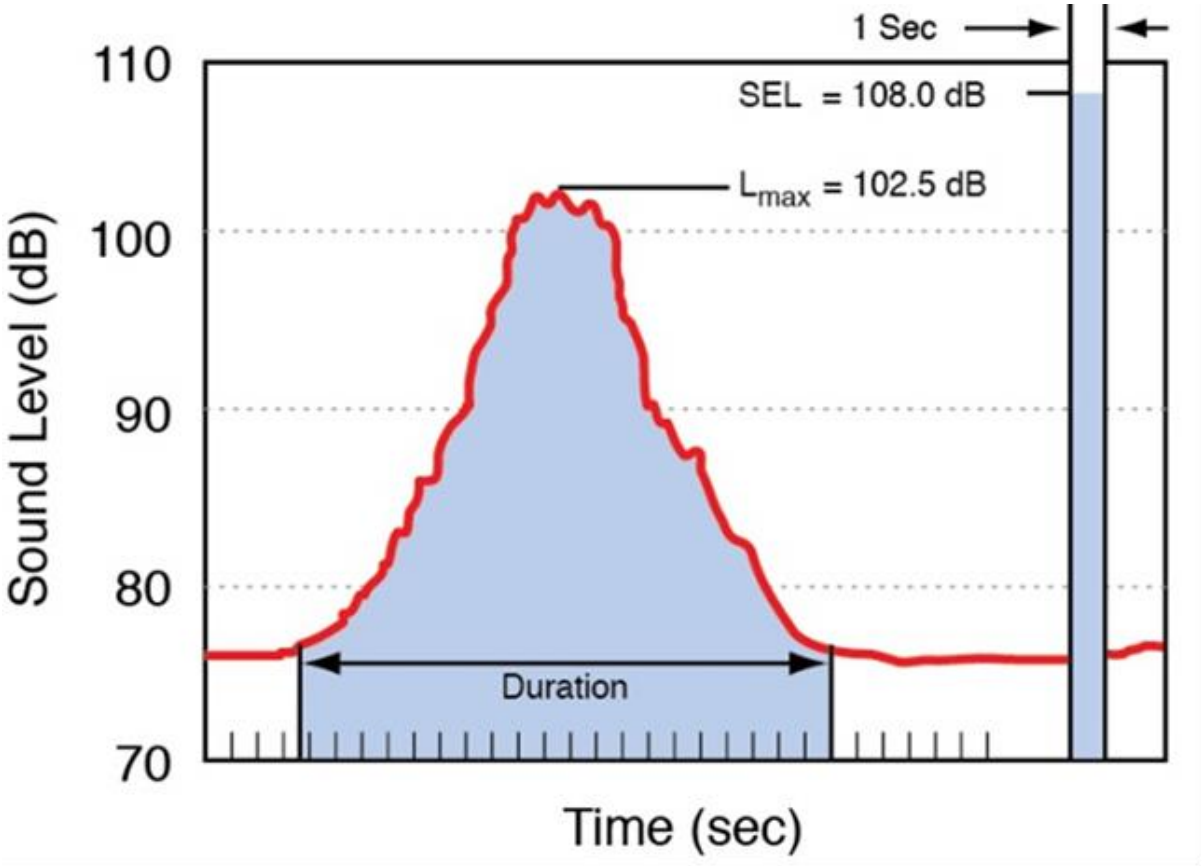
an aircraft approaches, the sound of the aircraft begins to rise above ambient levels. The closer the aircraft gets, the louder the sound until the aircraft is at its closest point. As the aircraft passes, the sound level decreases until the sound returns to ambient levels. It is this metric to which people primarily respond to when an aircraft flyover occurs.

Sound Exposure Level (SEL). This metric considers the maximum sound level of the event and the duration of the event. SEL is a time integrated measure, expressed in decibels, of the sound energy of a single noise event at a reference duration of one second. The sound level is integrated over the period that the level exceeds a threshold. Therefore, SEL accounts for both the maximum sound level and the duration of the sound. The standardization of sound generating events into a one-second duration allows calculation of the cumulative noise exposure of a series of events that occur over a period of time. In lay terms, SEL "squeezes" the entire noise event into one second. Because SEL is normalized to one second, it will always be larger than the L_{max} for events longer than one second. Since SEL takes duration into account, longer exposure to relatively quiet noise sources can have the same or higher SEL than shorter exposure to relatively louder noise sources. An example of SEL is presented in **Figure 2-2**.

2.1.3 Noise Attenuation

Construction noise typically dissipates at a rate of approximately 6 dB for each doubling of distance (between the noise source and the receptor, which is the location that is representative of where the sound would be experienced (e.g., a residence)). As an example, construction equipment with mufflers (independent of background ambient noise levels) during excavation and grading may generate a noise level of approximately 86 dBA L_{eq} at 50 feet from the noise source. Based on a sound dissipation rate of 6 dB per doubling of distance, a sound level of 86 dBA at 50 feet from the noise source would be approximately 80 dBA at a distance of 100 feet, 74 dBA at a distance of 200 feet, and so on. That sound dissipation rate does not take into account any intervening shielding (including landscaping or trees) or barriers, such as structures or hills between the noise source and noise receptor, which would further reduce noise levels.

Figure 2-2
Sound Exposure Level (SEL) Illustration

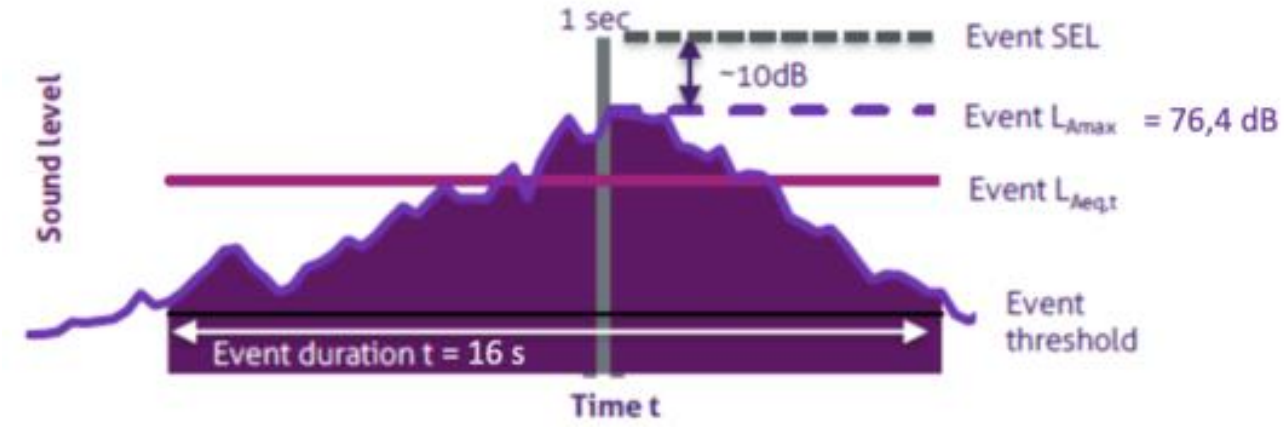


2.1.4 Cumulative Metrics

Cumulative noise metrics have been developed to assess community response to noise. They are useful because these scales attempt to include the loudness of the noise, the duration of the noise, the total number of noise events, and the time of day these events occur into one single number rating scale.

Equivalent Noise Level (Leq). Leq is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. Leq is often thought of as the average noise level over a given time period, when in actuality it is the "energy" average noise level during a specified period of time, such as an hour. It is based on the observation that the potential for a noise to affect people is dependent on the total acoustical energy content of the noise. It is the energy sum of all the sound that occurs during that time period. This is graphically depicted in **Figure 2-3**.

Figure 2-3
Leq Illustration



Source: FAA, 2022.

Community Noise Equivalent Level (CNEL). CNEL is a cumulative noise metric used to describe noise associated with aircraft operations. CNEL recognizes that people are normally more sensitive to intrusive sound events at night, and the background sound levels are normally lower at night because of decreased human activity. Therefore, noise events during the nighttime hours are likely to be more annoying than noise events at other times. To account for these factors, CNEL adds about a 4.8 dBA penalty to events occurring between the evening hours of 7:00 PM and 10:00 PM and a 10 dBA penalty to events occurring between 10:00 PM and 7:00 AM. In essence, the CNEL is the 24-hour equivalent sound level (or Leq 24), including this 4.8 dBA evening penalty and 10 dBA nighttime penalty. This penalty means that one evening sound event is equivalent to about three daytime events at the same level and one nighttime sound event is equivalent to 10 daytime events of the same level. Noise models calculate CNEL by incorporating the SELs of individual aircraft operations experienced at a given location during an annual average day (total annual operations divided by 365) with a 4.8 dBA penalty for events occurring between the evening hours and a 10 dBA penalty for those operations occurring during the nighttime hours.

2.2 Existing Noise Measurements

To determine the existing noise characteristics in the vicinity of the Airport, noise measurements were conducted at five separate noise measurement locations. These noise measurement locations, which are summarized in **Table 2-1** and

depicted in **Figure 2-4**, were chosen based on proximity of noise-sensitive receptors to proposed construction and demolition activities at the Airport as well as the closest noise-sensitive receptors within communities with Environmental Justice (EJ) concerns near the Airport. Location 1 is in Los Angeles, is within Block Group 1 of Census Tract 1232.04, and is considered to be a community with EJ concerns. Location 2 is in Los Angeles, is within Block Group 1 of Census Tract 1232.03, and also is considered a community with EJ concerns. Location 3 is in Burbank, is within Block Group 1 of Census Tract 3110.00, and while it is not considered a community with EJ concerns, it is the closest (1,400 feet) noise-sensitive receptor to the demolition activities that are proposed to occur in the southeast quadrant of the Airport. Location 4 is in Burbank, is within Block Group 3 of Census Tract 3105.01, and is considered to be a community with EJ concerns. This Location 4 was added to this analysis at the request of the City of Los Angeles. Location 5 is in Los Angeles, is within Block Group 1 of Census Tract 1021.05, and while it is not a community with EJ concerns, it is the closest (930 feet) noise-sensitive receptor to the construction activities that are proposed to occur in the northeast quadrant of the Airport.

Table 2-1
Details of Noise Measurement Locations

Noise Measurement Location	City	Community with Environmental Justice Concern
1	City of Los Angeles	Yes
2	City of Los Angeles	Yes
3	City of Burbank	No
4	City of Burbank	Yes
5	City of Los Angeles	No

The noise measurements were conducted over a week-long period using type 1 precision sound level meters, which continuously log sound levels and record audio of sound events.[4] Noise sources at these noise measurement locations include noise associated with freeways (i.e., Interstate 5 and State Route 170) and major arterial streets (e.g., Hollywood Way, San Fernando Boulevard, Buena Vista Street,

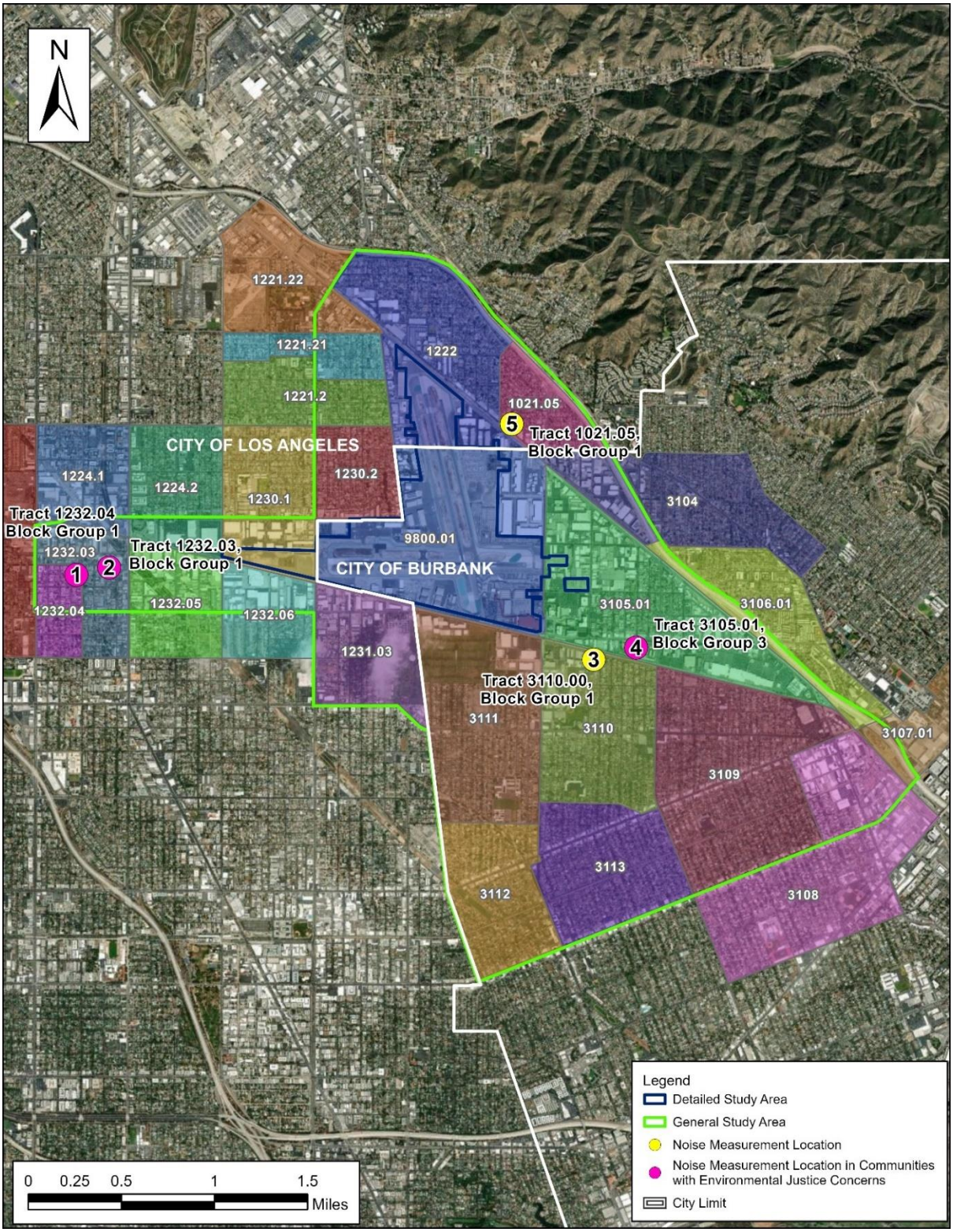
[4] The noise measurements were conducted over a one-week period. The noise monitor for Location 2 stopped working for 40 hours during the one-week period. To ensure that Location 2 had noise measurements that covered a one-week period, additional noise measurements were conducted. See Appendix A for details on the protocols associated with the noise measurements.

Empire Avenue, Sherman Way, Van Owen Street, and Lankershim Boulevard), noise associated with freight and passenger trains, aircraft operations,[5] and general noise generated in an urban environment. The results of these noise measurements are provided in **Figure 2-5**. To establish the ambient noise level at the five noise measurement locations during the hours in which construction and demolition activities would occur for the Proposed Project, FAA measured the noise during a 14-hour period between 7:00 AM and 9:00 PM.[6] This daytime ambient noise level is presented as Leq-14 and is provided for each of the five noise measurement locations in **Table 2-2**. The Noise Survey Report is presented in **Appendix A**.

[5] Only Locations 1 and 2 are beneath flight paths associated with aircraft arriving to or departing from the Airport.

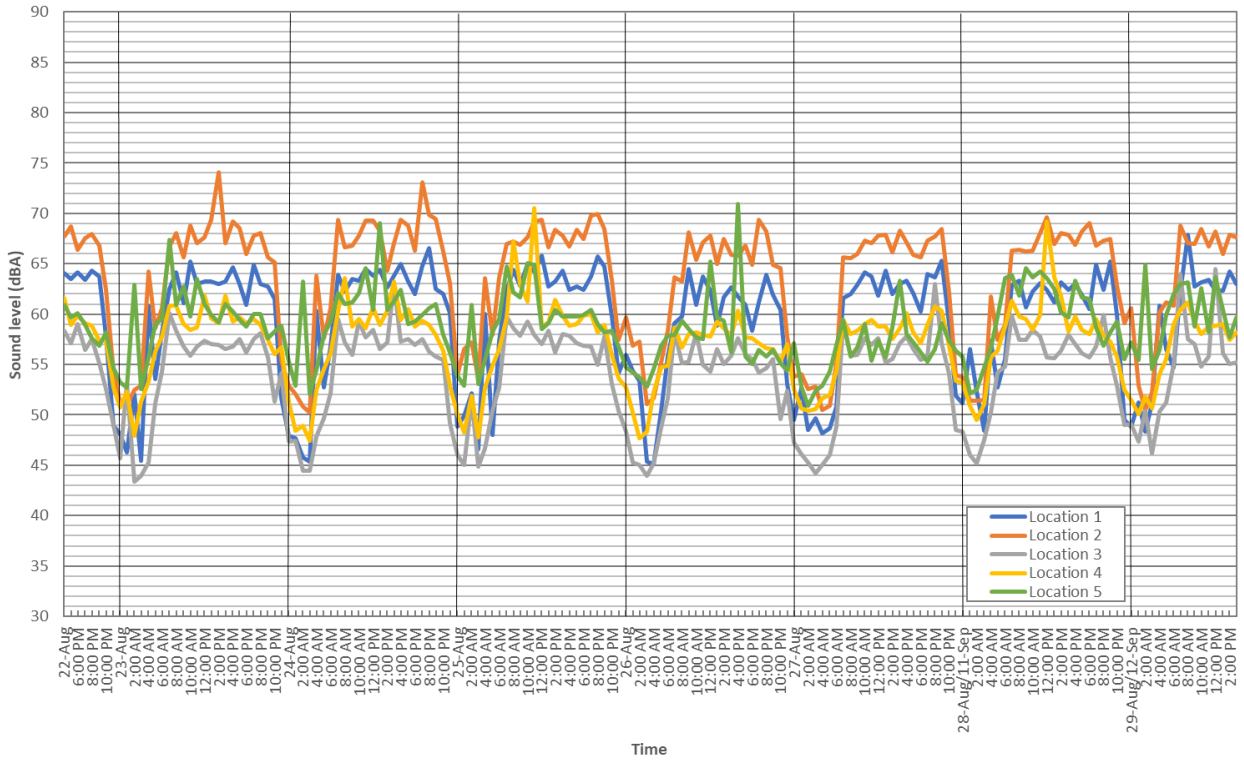
[6] To allow adequate comparison to City of Los Angeles's noise standards, the FAA used a 14-hour period (7:00 AM to 9:00 PM). See Section 2.6: City of Los Angeles v FAA [63 F.4th 835 (9th Cir. 2023).] ("[F]AA should take another look at the proposed action's consistency with [the City of Los Angeles's] standards").

Figure 2-4
Noise Measurement Locations



Sources: U.S. Census Bureau, 2018; RS&H, 2023.

Figure 2-5
Noise Measurement Results



Source: Noise Monitoring Services, 2023.

Table 2-2
Ambient Noise Levels at the Five Noise Measurement Locations in Leq-14

Noise Measurement Location	Ambient Noise (Leq-14) (7:00 AM – 9:00 PM)
1	64
2	69
3	58
4	60
5	62

Source: HMMH, 2023.

2.3 Methodology

Construction activities typically generate noise from the operation of equipment required for demolition and construction of various facilities. Proposed Project construction noise was evaluated by considering the construction activity, calculating the construction-related noise at nearby noise-sensitive receptors, and comparing the construction-related noise to existing ambient noise. In addition, FAA considered whether the calculated construction-related noise was consistent with local (City of Los Angeles) construction noise standards. Specifically, the following methodology was used in the analysis:

1. Existing (ambient) Leq dBA noise levels at five surrounding noise-sensitive receptors were collected over a one-week period.

2. Typical noise levels for each type of construction equipment (e.g., jackhammers, bulldozers, excavators, dump trucks, pavers, etc.) were obtained from the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) version 2.0.[7] Usage factors for equipment types were included in the calculations, based on factors identified by FHWA as being typical for construction of transportation infrastructure projects and are consistent with the construction efforts for the Proposed Project.

3. Calculations of construction noise were conducted using the approach described in the RCNM user's manual and were carried out in the commercially available three-dimensional sound propagation software program SoundPLAN. This model accounts for intervening buildings, topography, acoustically hard and soft surfaces, and other inputs that can affect how sound attenuates with distance.

4. Construction noise was calculated for daytime periods based on the anticipated construction phasing (see **Appendix B**). The construction phases were provided by the Authority and were used to calculate construction noise exposure throughout the time periods when construction would occur.[8] The construction phasing assumes nine construction phases and one demolition phase. Eight of the nine construction phases would occur prior to the demolition phase because the replacement terminal would need to be completed and operational prior to the demolition of the existing terminal.

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[7] FHWA RCNM 2.0, FHWA 2018, accessed online RCNM Version 2.0 - Construction Noise - Noise - Environment - FHWA (dot.gov). See also FAA Desk Reference, Section 11.5.1 (Construction Noise Analysis).

[8] To provide the most conservative analysis regarding construction noise, additional details regarding construction equipment for each phase of construction and/or demolition was obtained from the Authority.

Table 2-3 presents the construction and demolition phases to show which construction activities would overlap.

5. To determine noise levels associated with each phase of construction of the Proposed Project, it was assumed that every piece of construction equipment identified for that phase would be operating at the same time (see **Appendix B** for a list of construction equipment to be used for each construction and demolition phase). This is the most conservative approach to identifying construction noise because the use of every piece of construction equipment at the same time would be difficult to achieve and not typical for most construction projects. For example, the analysis assumes that multiple jack hammers will be operating simultaneously and continuously for all days in Construction Phases 5, 6, 7, 8, and 10, along with many other pieces of construction equipment. But in actuality, jack hammers would only be used on *some* days during each applicable phase and on those days, jack hammers would be used periodically, not continuously. The detailed calculation methods for construction are based on the quantities of construction equipment, schedule of construction efforts, construction equipment noise source levels, and the equations provided in Section 5 of the RCNM User's Manual. It is also consistent with the Court's directive to consider noise levels from multiple pieces of equipment operating at the same time, including multiple jack hammers (the loudest equipment) operating simultaneously and continuously.

6. To determine construction noise from multiple pieces of equipment operating simultaneously, the SoundPLAN model was used following the general methodology prescribed in the RCNM User's Manual.

7. To be consistent with the City of Los Angeles's noise standards, this analysis assumes construction would occur on weekdays from 7:00 AM to 9:00 PM.

8. Calculated total noise levels at noise measurement locations were then compared to ambient noise levels and the City of Los Angeles's noise standards.

Table 2-3
Construction Activity by Construction and Demolition Phases

Construction Activity	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8	Phase 9	Phase 10
Site Mobilization and Demolition	X									
Mass Grading		X								
Excavation			X	X						
Utilities and Paving Landside - Terminal				X		X	X	X		
Utilities and Paving Airside - Terminal					X	X	X	X		
Garage Structure					X	X	X	X		
Building Structure					X	X				
Building Skin						X	X			
Demolition									X	
Utilities and Paving Landside - Taxiway										X
Utilities and Paving Airside - Taxiway										X

2.4 Analysis of Construction Noise from the Proposed Project

Construction noise was assessed by implementing the methodologies included in the latest version of the FHWA RCNM. Quantitative assessment of noise from construction includes calculations of noise propagation from heavy construction equipment and pile driving anticipated for the Proposed Project at the five noise measurement locations.

Table 2-4 provides the results of the SoundPLAN model for each of the nine construction phases. The detailed Noise Modeling Technical Report is provided in **Appendix C**. **Table 2-5** provides the predicted noise levels at each of the noise measurement locations by logarithmically adding the predicted construction noise level to the ambient noise level and comparing that to the ambient noise level. **Table 2-6** identified the predicted changes in noise levels at each of the noise measurement locations by comparing the logarithmic addition of construction noise and ambient noise against ambient noise.

Table 2-4
Ambient Noise and Construction Noise (dBA Leq-14) by Construction Phase for Each Noise Measurement Location

		Construction Noise (Leq-14) by Construction Phase								
Noise Measurement Location	**Ambient Noise (Leq-14)**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**10**
1	64	25	33	36	39	41	44	43	37	32
2	69	26	34	37	40	42	45	44	38	33
3	58	31	40	42	47	49	52	52	45	38
4	60	32	40	43	48	50	54	53	46	48
5	62	44	54	58	60	**64**	**67**	**67**	59	46

Note: Phase 9 is a demolition phase and is presented in Section 2.5.
Source: HMMH, 2023.

Table 2-5
Logarithmic Combination of Ambient Noise and Construction Noise by Construction Phase for Each Noise Measurement Location

		Ambient Noise Plus Construction Noise (Leq-14) by Construction Phase								
Noise Measurement Location	**Ambient Noise (Leq-14)**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**10**
1	64	64	64	64	64	64	64	64	64	64
2	69	69	69	69	69	69	69	69	69	69
3	58	58	58	58	58	**59**	**59**	**59**	58	58
4	60	60	60	60	60	60	**61**	**61**	60	60
5	62	62	**63**	**63**	**64**	**66**	**68**	**68**	**64**	**63**

Note: Phase 9 is a demolition phase and is presented in Section 2.5.
Source: HMMH, 2023.

Table 2-6
Projected Increase of Combined Ambient and Construction Noise Level Compared to Ambient Noise Level by Construction Phase for Each Noise Measurement Location

	Projected Increase by Construction Phase (Leq-14)								
Noise Measurement Location	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**10**
1	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0
3	0	0	0	**1**	**1**	**1**	0	0	0
4	0	0	0	0	**1**	**1**	0	0	0
5	0	**1**	**1**	**2**	**4**	**6**	**6**	**2**	**1**

Source: HMMH, 2023.

An inherent property of the logarithmic dB scale is that the sound pressure levels of two separate sources are not directly additive. For example, if a sound of 50 dBA is added to another sound of 50 dBA in the proximity, the result is a 3-dB increase, which is a total of 53 dBA and not an arithmetic doubling to 100 dBA. Another example is a sound of 60 dBA added to another sound of 54 dBA (see Location 4 and Construction Phase 6 in **Table 2-4**), the result is a total of 61 dBA because the sound of 54 dBA would result in a net increase of only 1 dB, which would not appreciably modify the sound of 60 dBA (see Location 4 and Construction Phase 6 in **Table 2-5**).

As shown in **Table 2-5**, the combined ambient and construction noise levels would be below the ambient noise levels (7:00 am to 9:00 pm) for most phases at Locations 1 through 4. In other words, construction noise would actually be lower than ambient levels at those four noise measurement locations for most phases because of existing road noise, freight and passenger train noise, aircraft noise, and noise in an urban environment. For Location 3, three construction phases (Construction Phases 4, 5, and 6) would have a combined ambient and construction noise level that is 1 dBA Leq-14 greater than the ambient noise level (see **Table 2-6**). For Location 4, two construction phases (Construction Phases 5 and 6) would have a combined ambient and construction noise level that is 1 dBA Leq-14 greater than the ambient noise level (see **Table 2-6**). However, a person with average hearing would not be able to notice an appreciable change in noise from construction of the Proposed Project above the ambient noise environment at Locations 1 through 4.

The combined ambient and construction noise levels would exceed ambient noise for eight of the phases of construction at Location 5, which is in Block Group 1 of Census Tract 1021.05. Block Group 1 of Census Tract 1021.05 is located in the City of Los Angeles and is not a community with EJ concerns. This is the noise measurement location closest to the northeast quadrant of the Airport where most construction would occur. In three construction phases, the combined ambient and construction noise level would exceed the ambient noise level by 1 dB Leq-14 (see **Table 2-6**). In two construction phases, construction noise could exceed ambient noise by 2 dB Leq-14. In one construction phase, the combined ambient and construction noise level could exceed the ambient noise level by 4 dB Leq-14 (see **Table 2-6**). In two construction phases, the combined ambient and construction noise level could exceed the ambient noise level by 6 dB Leq-14 (see **Table 2-6**). However, exceedances of the ambient noise would not necessarily constitute an impact unless the construction noise is significantly higher than ambient noise. Generally speaking, a 3 dB change in similar sound levels would barely be noticeable by typical human hearing, a 5 dB change is readily noticeable, and a 10 dB change would be perceived as a doubling in sound. For Location 5, the increase in the combined ambient and construction noise level over the ambient noise level would range from no change to 6 dBA with the largest increases associated with construction phases six and seven. In other words, a person with average hearing may be able to notice some construction noise from the Proposed Project above the existing ambient noise environment during three of the nine phases of construction. But the noise levels from combining the existing urban environment and construction would not exceed 68 dB Leq-14 (see **Table 2-5**). The combined ambient and construction noise level also are well below the City of Los Angeles's own noise standards of 75 dBA, as discussed below in **Section 2.6**.

The analysis above shows that even when using a conservative approach of assuming that every piece of construction equipment is used simultaneously during construction of the Proposed Project, there would be zero or minimal noise impacts from construction. These construction noise levels would be well below the City of Los Angeles's construction noise standards. Further, the noise measurement locations are located far beyond the City of Los Angeles's 500 feet standard. Also, construction noise in general would be temporary and intermittent. Given these facts, construction noise for the Proposed Project is anticipated to be minimal and would not be a significant impact.

2.5 Analysis of Demolition Noise from the Proposed Project

Demolition noise was assessed using the same methodologies outlined in **Section 2.3**. One demolition phase was analyzed. The demolition equipment to be used for this phase is presented in **Appendix B**.

Table 2-7
provides the results of the SoundPLAN model for the demolition phase. As shown, none of the five noise measurement locations would experience demolition noise at or above ambient noise. Therefore, noise impacts during the demolition phase of the Proposed Project would not be significant.

Table 2-7
Demolition Noise for Each Noise Measurement Location

Noise Measurement Location	Ambient Noise Measurement (Leq-14)	Demolition Noise (Leq-14)	Combined Ambient Noise and Demolition Noise (Leq-14)	Increase Resulting from Demolition Noise (dBA Leq-14)
1	64	32	64	0
2	69	33	69	0
3	58	35	58	0
4	60	48	60	0
5	62	46	62	0

2.6 City of Los Angeles's Noise Standards

The City of Los Angeles municipal code (LAMC) noise regulations are not applicable to operational noise from the Airport. However, in accordance with Section 41.40 of the LAMC, construction noise is restricted as follows:

> *"No person shall, between the hours of 9:00 PM and 7:00 AM of the following day, perform any construction or repair work of any kind upon, or any excavating for, any building or structure, where any of the foregoing entails the use of any power-driven drill, riveting machine excavator or any other machine, tool, device or equipment which makes loud noises to the disturbance of persons occupying sleeping quarters in any dwelling hotel or apartment or other place of residence. In addition, the operation, repair or servicing of construction equipment and the job-site delivering of construction materials in such areas shall be prohibited during the hours herein specified. Any person who knowingly and willfully violates the foregoing provision shall be deemed guilty of a misdemeanor punishable as elsewhere provided in this Code."*

The City of Los Angeles Noise Regulation (Noise Regulation) also limits noise from construction equipment within 500 feet of a residential zone to 75 dBA, measured at a distance of 50 feet from the source, unless compliance with this limitation is technically infeasible. Technically infeasible means the noise limitation cannot be met despite the use of mufflers, shields, sound walls and/or any other noise reduction device or techniques during the operation of equipment. The Noise Regulation prohibits construction noise between the hours of 9:00 PM and 7:00 AM Monday through Friday and on Saturday before 8:00 AM and after 6:00 PM and does not allow construction noise on Sunday. The City of Los Angeles may provide permission to work outside of these hours if it is in the public interest, or where a hardship or injustice, or unreasonable delay would result from its interruption during the hours provided in Section 41.40 of the LAMC.

Locations 1, 2, and 5 are within the City of Los Angeles. As shown in **Table 2-4** and **Table 2-7**, three of the noise measurement locations would experience construction noise at or above ambient noise during any of the nine construction phases or during the demolition phase of the Proposed Project. Of the noise measurement locations in the City of Los Angeles, only Location 5 would experience increases above ambient and this would occur during eight of the nine construction phases. However, these increases would not exceed the City of Los Angeles's noise standards that limit noise from construction equipment within 500 feet of a residential zone to 75 dBA measured at a distance of 50 feet from the source. Here, Location 5 is 940 feet from the closest construction noise source, almost

double the distance from the City of Los Angeles's 500-foot standard. However, in light of the Court's requirement to analyze the construction noise impacts, the FAA went further than the City of Los Angeles's own standard by analyzing construction noise at this distant location. In addition, using the conservative approach of having all construction equipment operating at the same time, the highest construction noise at Location 5 would be 68 dBA Leq-14, which is 7 dBA *less* than the City of Los Angeles's noise standards of 75 dBA. In other words, even the phases with the most noise, construction would not come close to exceeding the City of Los Angeles's noise standard. Thus, the Proposed Project would not violate the City of Los Angeles's noise regulations with respect to the Proposed Project's construction and demolition activities.

The noise analysis also showed that construction noise from the Proposed Project would be consistent with the City of Burbank's noise ordinance. Complying with the City of Burbank noise ordinance requires contractors to limit construction and demolition to weekdays between 7:00 AM to 7:00 PM. As previously disclosed and recently confirmed by the Authority, construction and demolition would occur only on weekdays and only between the hours of 7:00 AM and 7:00 PM.

2.7 Environmental Justice

Construction noise was assessed as outlined in **Section 2.3** and demolition noise was assessed as outlined in **Section 2.4** (see **Appendix B**). Construction and demolition noise were modeled to determine the level of noise at each of the three communities with EJ concerns, Locations 1, 2, and 4 (see **Section 2.2**).

As shown in **Table 2-4** and **Table 2-7**
none of the three communities with EJ concerns (Locations 1, 2, and 4) would experience noise levels at or above 54 dBA Leq during any of the nine construction phases or during the demolition phase, which is 21 dBA Leq below the City of Los Angeles's noise standards of 75 dBA. In addition, construction and demolition noise would, at most, exceed ambient noise levels by 1 dB in one of the three communities with EJ concerns. No noise impacts during construction or demolition would occur at any of the three communities with EJ concerns. Therefore, there would be no disproportionately high and adverse effects to communities with EJ concerns.

For the other noise measurement locations, only Location 5, which is not a community with EJ concerns, would experience construction noise that would exceed the ambient noise level. However, the exceedance would be temporary, intermittent, and be at least 7 dBA below the City of Los Angeles's noise standard of 75 dBA and therefore, not significant by any standard.

2.8 Cumulative Impacts

The FEIS identified other projects in the vicinity of the Airport that would be developed in the same timeframe as the Proposed Project. Most of those projects have already been completed or have been deferred (see **Table 2-8** update on the status of those other projects). In addition, the Authority has not identified any other projects at the Airport that were not identified in the FEIS and that would be implemented within the past, present, or reasonably foreseeable future.

As verified by the Authority, construction of the replacement passenger terminal building as well as the demolition of the existing passenger terminal building would occur between 2024 and 2027. As shown in **Table 2-8**, none of the other projects identified in the FEIS would occur at the same time as the construction of the Proposed Project in the northeast quadrant and the demolition of the existing facilities in the southeast quadrant. In other words, there is no overlap between the construction of the replacement passenger terminal building, the demolition of the existing passenger terminal building, and the construction of the California High Speed Rail project. As a result, no communities in the Airport vicinity would experience any cumulative construction-related noise impacts. Thus, the construction and demolition noise would not contribute to construction or demolition noise of any other known projects in the Airport vicinity. Additionally, and as described in **Section 2.2**, the ambient noise measurements taken at the five noise measurement locations included existing and measurable noise events including noise from aircraft operations. As discussed previously, only Locations 1 and 2 are beneath flights paths associated with aircraft arriving to or departing from the Airport. As shown in **Table 2-6** and **Table 2-7**, no increase in noise levels would occur at either Location 1 or Location 2 during construction or demolition of the Proposed Project. Since there would be no change to forecasted aircraft operations at the Airport associated with the Proposed Project, there is no additional cumulative noise impact that is not included in these calculations. Therefore, construction and demolition of the Proposed Project would not result in a cumulative noise impact.

Table 2-8
Updated Cumulative Projects in the Vicinity of the Airport

Project	Project Location	Project Description	Project Status
Interstate-5 Widening	I-5 between Magnolia boulevard and Buena Vista Street	The project includes the construction of new high-occupancy-vehicle lanes in each direction	Completed 2019-2020/a/
Empire Ave Interchange Project	I-5 interchange at Empire Ave	The project includes reconstruction of the I-5 interchange at Empire Ave	Completed 2019-2020/a/
Burbank Airport South Metrolink Station Pedestrian Bridge	Over Empire Ave between the South Metrolink Station and RITC	The project includes the construction of a pedestrian bridge over Empire Ave	Deferred (permanently)
Delta Ramp Expansion	Airport Property	The project would expand the Delta ramp north towards Sherman Way by 87,000 square feet.	Completed BGPAA FY 2020
Avion Business Park Construction	3001 North Hollywood Way	This project would develop a 61-acre parcel of land adjacent to the northeast quadrant of Airport property. The Amazon distribution station is part of this development project.	Office/Retail completed January 2022; 100% occupied; Hotel opening first quarter 2024
California High Speed Rail	Proposed station east of proposed replacement passenger terminal building and proposed tunnel under the airport property	This project is included but construction of this project will be determined following the completion of the environmental review process, receipt of funding, and final decisions by the CHSR Authority Board; therefore, it is for informational purposes only	Proposed 2031/b/

Notes:
/a/ - https://www.burbankca.gov/web/community-development/interstate-5/empire-avenue-interchange
/b/ - https://hsr.ca.gov/high-speed-rail-in-california/station-communities/los-angeles/

2.9 Combining Noise Metrics

The noise associated with the nine construction phases and the demolition phase of the Proposed Project would occur only during the daytime hours of 7:00 AM to 7:00 PM consistent with the City of Burbank's noise ordinance. This 12-hour period associated with the City of Burbank's noise ordinance is a shorter timeframe than the 14-hour period associated with the City of Los Angeles's noise standards. Therefore, if the noise levels associated with the nine construction phases and the demolition phase were to be converted from Leq-14 to CNEL, the noise levels would be much less than what is described in **Sections 2.4** and **2.5**. This is because Leq-14 represents the average sound level during a 14-hour period as opposed to CNEL which represents a weighted average sound level during a 24-hour period with additional penalties added for noise occurring during 7:00 PM to 7:00 AM. In other words, Leq-14 represents a more conservative approach than CNEL because using CNEL would result in the total amount of noise during construction or demolition to be spread over a 24-hour period and not just the daytime hours.

Further, it would not be worthwhile to convert this information to CNEL. First, as discussed in FAA Order 1050.1F, the CNEL metric is used mainly to evaluate noise from aircraft, not construction noise. Second, as discussed above, converting to CNEL would seriously misrepresent construction and demolition noise. This is because CNEL calculates noise levels by averaging across an entire year (8,760 hours). Both City of Burbank (7:00 AM to 7:00 PM) and City of Los Angeles (7:00 AM to 9:00 PM) have construction time limits that would cap construction at 3,132 and 3,654 hours per year, respectively. To clarify, under the Proposed Project, construction and demolition activities would not occur on weekend days or during evening and nighttime hours. Converting the noise from construction into CNEL would average the noise over 8,760 hours, which is more than double the number of hours construction could actually occur under the Proposed Project. This would result in a lower noise level and would not be representative of the construction noise of the Proposed Project. This information would not provide an informed analysis for purposes of evaluating potential noise impacts. So, for the purposes of this Written Re-evaluation, FAA relies on Leq, not CNEL, to analyze construction and demolition noise.

3 CONCLUSION

In compliance with the Court's directive to address deficiencies in FAA's construction noise analysis in the 2021 FEIS for the Proposed Project, the FAA conducted additional construction noise analysis utilizing a conservative approach of assuming that every piece of scheduled construction equipment is used simultaneously during their respective construction and demolition phases of the Proposed Project. FAA compared the findings to the City of Los Angeles's standards. It also looked at resulting impacts to the environmental justice and cumulative impacts analyses.

As demonstrated throughout this document, FAA found little (1 dBA) to no change in noise over ambient noise levels during any construction or demolition phase of the Proposed Project at four of the five noise measurement locations (Locations 1 - 4). At location 5, the closest location to construction, there would be small increases (up to 6 dBA) in noise levels over ambient noise levels for eight construction phases. However, such increases are minimal and far below the City of Los Angeles's standards. Indeed, the noise analysis shows that all noise levels including those over ambient noise levels at every location would be well below the City of Los Angeles's construction noise standards. For communities with environmental justice concerns, the noise analysis shows that they would not experience disproportionately high and adverse effects from construction noise. None of the noise measurement locations located in communities with EJ concerns (Location 1, 2, and 4) would experience greater than a 1 dBA change in noise over ambient noise levels during any construction or demolition phase of the Proposed Project. FAA reviewed past, present and reasonably foreseeable future actions and found that there would be no overlap with construction activities of the Proposed Project and, thus, no communities in the Airport vicinity would experience any cumulative construction-related noise impacts.

Based on these results, the Written Re-evaluation indicates that the construction noise analysis and conclusions in the 2021 FEIS and ROD remain valid and there would be no significant impacts from the Proposed Project related to construction noise, environmental justice and cumulative impacts. Further, the Proposed Project conforms to the project described in the 2021 FEIS, the data and analyses are still substantially valid, and there are no significant new circumstances or information relevant to environmental concerns with bearing on the Proposed Project or its impacts.

4 PUBLIC REVIEW

This chapter describes public involvement efforts that occurred throughout the preparation of this Draft Written Re-evaluation for the proposed replacement passenger terminal and associated development (Proposed Project) at the Bob Hope "Hollywood Burbank" Airport. National Environmental Policy Act (NEPA) requirements, as well as FAA guidance, were followed when preparing this Draft Written Re-evaluation. The public involvement process was designed to inform and educate the agencies and public about the contents of the Draft Written Re-evaluation. By receiving and considering public comments, the FAA was able to evaluate and address concerns about construction noise effects of the Proposed Project.

4.1 Availability of the Written Re-evaluation

Advertisements in three different languages announcing the availability of the Draft Written Re-evaluation are to be published on November 7, 2023 in the *La Opinion* and *Pasadena Star News* newspapers, on November 10, 2023 in the *Asbarez* newspaper, and on November 11, 2023 in *The Burbank Leader* and *Glendale News Press* newspapers. The newspaper advertisement used for the publications is contained in **Appendix D**. The Draft Written Re-evaluation is available for public review and comment. An electronic version can be viewed at the following website:

https://www.bobhopeairporteis.com/

A physical copy can be viewed at Burbank City Hall (275 East Olive Avenue, Burbank, CA 91502).

Comments on the Draft Written Re-evaluation are due no later than 5:00 PM Pacific Standard Time on Wednesday, November 22, 2023. Written comments on the Draft Written Re-evaluation can be submitted in the following ways:

By website to: https://bobhopeairporteis.com/public-involvement/

By U.S. mail to:

Ms. Edvige B. Mbakoup
U.S. Department of Transportation
Environmental Protection Specialist
Office of Airports
Federal Aviation Administration, Western Pacific Region
777 S. Aviation Boulevard, Suite 150
El Segundo, California 90245

4.2 Responses Public Comments

After the close of the public comment period, the FAA will prepare a Final Written Re-evaluation, which will contain responses to all substantive comments received during the public comment period.

5 LIST OF PREPARERS

5.1 Federal Aviation Administration

Edvige Mbakoup. Environmental Protection Specialist, Los Angeles Airports District Office.

Michael Lamprecht. Environmental Protection Specialist, Headquarters.

5.2 RS&H

Dave Full, AICP. Project Manager for the Written Re-evaluation,

Julie Barrow. Deputy Project Manager and Technical Analyst for the Written Re-evaluation.

Alex Philipson. Technical Analyst for the Written Re-evaluation.

5.3 Noise Monitoring Services

Kyle Kim. Conducted noise monitoring for the Written Re-evaluation.

5.4 HMMH

Scott Noel, ACIP INCE. Conducted the SoundPLAN model analysis for the Written Re-evaluation.

6 REFERENCES

City of Los Angeles v. FAA, 63 F.4th 835 (9th Cir. 2023).

FAA Desk Reference, Section 11.5.1 (Construction Noise Analysis).

FHWA RCNM 2.0, FHWA 2018, accessed online RCNM Version 2.0 - Construction Noise - Noise - Environment - FHWA (dot.gov).

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