4. ENVIRONMENTAL IMPACT ANALYSIS

I. NOISE

INTRODUCTION

The information and analysis in this Section 4.I concerning the Project's potential noise impacts was originally provided in the Project's Original Draft EIR. Prior to the City Council's approval of the Project in November 2019, minor changes were made to that noise analysis. Those changes were set forth in the following documents[1]:

a) Erratum No. 1 to Final EIR dated July 2019 – This Erratum corrected a discrepancy in the square footage of the Project's Event Space on the fourth and fifth floors. Correction of that discrepancy, however, did not cause any new significant impacts because the analysis of noise associated with the Event Space was based on the maximum number of event attendees, which limit did not change after correction of the discrepancy in the square footage of the Event Space.

b) Erratum No. 2 to Final EIR dated August 2019 – The Erratum made clarifying changes to the Project's Construction Traffic Management Plan. That clarification did not alter the noise analysis because the conditions that could affect impacts to noise would not be changed by the change in the Construction Traffic Management Plan.

c) Erratum No. 3 to Final EIR dated October 2019 – This Erratum, among other things, provided additional analysis of construction noise impacts to the Textile Lofts Building. As discussed at pages 24-28, below, the changes to the noise analysis in the recirculated Draft EIR made in response to the Trial Court Ruling account for impacts to the Textile Lofts Building.

Subsequent to the City Council's approval of the Project, changes were made to that noise analysis in response to the Trial Court Ruling. Since the Trial Court Ruling determined a deficiency in Mitigation Measure I-2 (concerning construction noise), the analysis added to this Section 4.1 is primarily provided in the subsection entitled **LEVEL OF SIGNIFICANCE AFTER MITIGATION, Construction Noise** at pages 24-28. That additional analysis is based on the supplemental technical report and supporting exhibits provided in Appendix I-3. The technical appendices for this revised Section 4-I also include the noise report for the Original Draft EIR, which is provided at Appendix I-2. Also, an update to the list of sensitive noise receptors in the vicinity of the Project Site[2] is provided at pages 10-12 below, and an update to the noise levels from construction vehicles and equipment that could be used for the Project based on the latest version (version 2.0) of the Federal Highway Administration's Roadway Construction Noise Model, is provided at

[1] Copies of Erratum No. 1, Erratum No. 2 and Erratum No. 3 are provided in Appendix I-1.

[2] The updated list includes new land uses that were constructed or converted to residential uses after the Notice of Preparation was released for the Project in May 2017, based on information provided at zimas.lacity.org online tool, and a walking tour of the Project's vicinity conducted on April 8, 2021.

pages 14-16, below. Finally, the Trial Court Ruling did not address or invalidate the analysis of the Project's operational noise impacts or construction vibration impacts, and, therefore, those impact analyses have not been revised (although for completeness sake, those analyses from the Original Draft EIR are repeated below).

ENVIRONMENTAL SETTING

Characteristics of Sound

Sound is technically described in terms of the loudness (amplitude) and frequency (pitch) of the sound. The standard unit of measurement for sound is the decibel (dB). The human ear is not equally sensitive to sound at all frequencies. The "A-weighted scale," abbreviated dBA, reflects the normal hearing sensitivity range of the human ear. On this scale, the range of human hearing extends from approximately 3 to 140 dBA. Table 4.I-1 provides examples of A-weighted noise levels from common sources.

Table 4.I-1
A-Weighted Decibel Scale

Typical A-Weighted Sound Levels	Sound Level (dBA, L_{eq})
Threshold of Pain	140
Jet Takeoff at 100 Meters	125
Jackhammer at 15 Meters	95
Heavy Diesel Truck at 15 Meters	85
Conversation at 1 Meter	60
Soft Whisper at 2 Meters	35
Source: United States Occupational Safety & Health Administration, Noise and Hearing Conversation Technical Manual, 1999.	

Noise Definitions

Community Noise Equivalent Level (CNEL): CNEL is an average sound level during a 24-hour period. CNEL is a noise measurement scale, which accounts for noise source, distance, single event duration, single event occurrence, frequency, and time of day. Human reaction to sound between 7:00 P.M. and 10:00 P.M. is as if the sound were actually 5 dBA higher than if it occurred from 7:00 A.M. to 7:00 P.M. From 10:00 P.M. to 7:00 A.M., humans perceive sound as if it were 10 dBA higher due to the lower background level. Hence, the CNEL is obtained by adding an additional 5 dBA to sound levels in the evening from 7:00 P.M. to 10:00 P.M. and 10 dBA to sound levels in the night from 10:00 P.M. to 7:00 A.M. Because CNEL accounts for human sensitivity to sound, the CNEL 24-hour figure is always a higher number than the actual 24-hour average.

Equivalent Noise Level (L_{eq}). L_{eq} is the average noise level on an energy basis for any specific time period. The L_{eq} for one hour is the energy average noise level during the hour. The average noise level is based on the energy content (acoustic energy) of the sound. L_{eq} can be thought of as the level of a continuous noise that has the same energy content as the fluctuating noise level. The equivalent noise level is expressed in units of dBA.

Effects of Noise

The degree to which noise can impact the environment ranges from levels that interfere with speech and sleep to levels that cause adverse health effects. Human response to noise is subjective and can vary from person to person. Factors that influence individual response include the intensity, frequency, and pattern of noise, the amount of background noise present before the intruding noise, and the nature of work or human activity that is exposed to the noise source.

Audible Noise Changes

Small perceptible changes in sound level for a person with normal hearing sensitivity is approximately 3 dBA. A change of at least 5 dBA would be noticeable and would likely cause some community reaction. A 10-dBA increase is heard as a doubling in loudness and would cause a community response.

Noise levels decrease as the distance from the noise source to the receiver increases. Noise generated by a stationary noise source, or "point source," will decrease by approximately 6 dBA over hard surfaces (e.g., reflective surfaces such as parking lots or smooth bodies of water) and 7.5 dBA over soft surfaces (e.g., absorptive surfaces such as soft dirt, grass, or scattered bushes and trees) for each doubling of the distance. For example, if a noise source produces a noise level of 89 dBA at a reference distance of 50 feet, then the noise level would be 83 dBA at a distance of 100 feet from the noise source, 77 dBA at a distance of 200 feet, and so on. Noise generated by a mobile source will decrease by approximately 3 dBA over hard surfaces and 4.5 dBA over soft surfaces for each doubling of the distance.

Noise is most audible when traveling by direct line-of-sight, an unobstructed visual path between noise source and receptor. Barriers, such as walls or buildings that break the line-of-sight between the source and the receiver can greatly reduce noise levels from the source since sound can only reach the receiver by diffraction. Sound barriers can reduce sound levels by up to 20 dBA. However, if a barrier is not high or long enough to break the line-of-sight from the source to the receiver, its effectiveness is greatly reduced.

Introduction to Vibration

Characteristics of Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, and acceleration. Unlike noise, vibration is not a common environmental problem, as it is unusual for vibration from vehicle sources to be perceptible. Common sources of vibration include trains, construction activities, and certain industrial operations.

Vibration Definitions

This noise analysis discusses vibration in terms of Peak Particle Velocity (PPV).

Peak Particle Velocity

PPV is commonly used to describe and quantify vibration impacts to buildings and other structures. PPV levels represent the maximum instantaneous peak of a vibration signal and are usually measured in inches per second.[3]

Effects of Vibration

High levels of vibration may cause physical personal injury or damage to buildings. However, ground-borne vibration levels rarely affect human health. Instead, most people consider ground-borne vibration to be an annoyance that can disrupt concentration or disturb sleep. Ground-borne vibration can also interfere with certain types of highly sensitive equipment and machines, especially imaging devices used in medical laboratories.

Perceptible Vibration Changes

Unlike noise, ground-borne vibration is not an environmental issue that most people experience every day. Background vibration levels in residential areas are usually well below the threshold of perception for humans, approximately 0.01 inches per second.[4] Perceptible indoor vibrations are most often caused by sources within buildings themselves, such as slamming doors or heavy footsteps. Common outdoor sources of ground-borne vibration include construction equipment, trains, and traffic on rough or unpaved roads. Traffic vibration from smooth and well-maintained roads is typically not perceptible.

REGULATORY SETTING

Noise

Federal

There are no federal noise standards that directly regulate environmental noise related to the construction or operation of the Project, which is a private development in the City. With regard to noise exposure and workers, the Office of Safety and Health Administration (OSHA) regulations safeguard the hearing of workers exposed to occupational noise.

State

The State's 2003 General Plan Guidelines establish county and city standards for acceptable exterior noise levels based on land use. These standards are incorporated into land use planning

[3] *California Department of Transportation, Transportation and Construction Vibration Guidance Manual, September 2013.*

[4] *Ibid.*

processes to prevent or reduce noise and land use incompatibilities. Table 4.I-2 illustrates State compatibility considerations between various land uses and exterior noise levels.

Table 4.I-2
Land Use Noise Exposure Compatibility

Land Use	Normally Acceptable[a]	Conditionally Acceptable[b]	Normally Unacceptable[c]	Clearly Unacceptable[d]
Single-family, Duplex, Mobile Homes	50 - 60	55 - 70	70 - 75	above 75
Multi-Family Homes	50 - 65	60 - 70	70 - 75	above 75
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 70	60 - 70	70 - 80	above 80
Transient Lodging – Motels, Hotels	50 - 65	60 - 70	70 - 80	above 75
Auditoriums, Concert Halls, Amphitheaters	---	50 - 70	---	above 70
Sports Arena, Outdoor Spectator Sports	---	50 - 75	---	above 75
Playgrounds, Neighborhood Parks	50 - 70	---	67 - 75	above 75
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 - 75	---	70 - 80	above 80
Office Buildings, Business and Professional Commercial	50 - 70	67 - 77	above 75	---
Industrial, Manufacturing, Utilities, Agriculture	50 - 75	70 - 80	above 75	---

[a] Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.
[b] Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
[c] Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
[d] Clearly Unacceptable: New construction or development should generally not be undertaken.

Source: *Office of Planning and Research, State of California Genera Plan Guidelines, October 2003 (in coordination with the California Department of Health Services); City of Los Angeles, General Plan Noise Element, adopted February 1999.*

City

Los Angeles Municipal Code

The City of Los Angeles Municipal Code (the "LAMC") contains a number of regulations that apply to temporary construction activities and long-term operations. Section 41.40(a) prohibits construction activities from occurring between the hours of 9:00 P.M. and 7:00 A.M., Monday through Friday. Subdivision (c), below, further prohibit such activities from occurring before 8:00 A.M. or after 6:00 P.M. on any Saturday, or on any Sunday or national holiday.

SEC.41.40. NOISE DUE TO CONSTRUCTION, EXCAVATION WORK—WHEN PROHIBITED.

(a) No person shall, between the hours of 9:00 P.M. and 7:00 A.M. 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 drive 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.

(b) No person, other than an individual homeowner engaged in the repair or construction of his single-family dwelling shall perform any construction or repair work of any kind upon, or any earth grading for, any building or structure located on land developed with residential buildings under the provisions of Chapter I of this Code, or perform such work within 500 feet of land so occupied, before 8:00 A.M. or after 6:00 P.M. on any Saturday or national holiday nor at any time on any Sunday. In addition, the operation, repair, or servicing of construction equipment and the job-site delivering of construction materials in such areas shall be prohibited on Saturdays and on Sundays during the hours herein specific…

Section 112.05 of the LAMC establishes noise limits for powered equipment and hand tools operated within 500 feet of residential zones. Of particular importance to construction activities is subdivision (a), which institutes a maximum noise limit of 75 dBA for the types of construction vehicles and equipment that are used for demolition and grading, especially. However, the LAMC goes on to note that these limitations do not necessarily apply if proven that compliance therewith would be technically infeasible despite the use of noise-reducing means or methods.

SEC. 112.05. MAXIMUM NOISE LEVEL OF POWERED EQUIPMENT OR POWERED HAND TOOLS

Between the hours of 7:00 A.M. and 10:00 P.M., in any residential zone of the City or within 500 feet thereof, no person shall operate or cause to be operated any powered equipment or powered hand tool that produces a maximum noise level exceeding the following noise limits at a distance of 50 feet therefrom:

(a) 75 dBA for construction, industrial, and agricultural machinery including crawler-tractors, dozers, rotary drills and augers, loaders, power shovels, cranes, derricks, motor graders, paving machines, off-highway trucks, ditchers, trenchers, compactors, scrapers, wagons, pavement breakers, compressors and pneumatic or other powered equipment;

(b) 75 dBA for powered equipment of 20 HP or less intended for infrequent use in residential areas, including chain saws, log chippers and powered hand tools;

(c) 65 dBA for powered equipment intended for repetitive use in residential areas, including lawn mowers, backpack blowers, small lawn and garden tools and riding tractors.

Said noise limitations shall not apply where compliance therewith is technically infeasible. The burden of proving that compliance is technically infeasible shall be upon the person or persons charged with a violation of this section. Technical infeasibility shall mean that said noise limitations cannot be complied with despite the use of mufflers, shields, sound barriers and/or other noise reduction device or techniques during the operation of the equipment.

Section 112.01 of the LAMC prohibits any amplified noises, especially those from outdoor sources (e.g., outdoor speakers, stereo systems, etc.) from exceeding the ambient noise levels of adjacent properties by more than 5 dBA. Amplified noises are also prohibited from being audible at any distance greater than 150 feet from the property line of the source.

SEC.112.01. RADIOS, TELEVISION SETS, AND SIMILAR DEVICES

(a) It shall be unlawful for any person within any zone of the City to use or operate any radio, musical instrument, phonograph, television receiver, or other machine or device for the producing, reproducing or amplification of the human voice, music, or any other sound, in such a manner, as to disturb the peace, quiet, and comfort of neighbor occupants or any reasonable person residing or working in the area.

(b) Any noise level caused by such use or operation which is audible to the human ear at a distance in excess of 150 feet from the property line of the noise source, within any residential zone of the City or within 500 feet thereof, shall be a violation of the provisions of this section.

(c) Any noise level caused by such use or operation which exceeds the ambient noise level on the premises of any other occupied property, or if a condominium, apartment house, duplex, or attached business, within any adjoining unit, by more than five (5) decibels shall be a violation of the provisions of this section.

Section 112.02(a), below, prohibits heating, ventilation, and air conditioning (HVAC) systems and other mechanical equipment from elevating ambient noise levels at neighboring residences by more than 5 dBA.

SEC.112.02. AIR CONDITIONING, REFRIGERATION, HEATING, PLUMBING, FILTERING EQUIPMENT

(a) It shall be unlawful for any person, within any zone of the city, to operate any air conditioning, refrigeration or heating equipment for any residence or other structure or

> *to operate any pumping, filtering or heating equipment for any pool or reservoir in such manner as to create any noise which would cause the noise level on the premises of any other occupied property … to exceed the ambient noise level by more than five decibels.*

L.A. CEQA Thresholds Guide

In 2006, the City released the *L.A. CEQA Thresholds Guide* to provide further guidance for the determination of significant construction and operational noise impacts. According to the guide, a project would, under normal circumstances, have a significant impact if the following were to occur:

- *Construction activities lasting more than one day would exceed existing ambient exterior noise levels by 10 dBA or more at a noise sensitive use;*
- *Construction activities lasting more than 10 days in a three month period would exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use; or*
- *Construction activities would exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 P.M. and 7:00 A.M. Monday through Friday, before 8:00 A.M. or after 6:00 P.M. on Saturday, or at any time on Sunday.*

For a project's operational impacts, the following thresholds apply:

- *The ambient noise level measured at the property line of affected uses to increase by 3 dBA in CNEL to or within the "normally unacceptable" or "clearly unacceptable" category.*
- *Any 5 dBA or greater noise increase.*

These "normally unacceptable" and "clearly unacceptable" categories refer to those outlined by the State's noise and land-use compatibility chart, shown on Table 4.I-2.

Vibration

Federal

For the evaluation of construction-related vibration impacts, state standards set by the California Department of Transportation (Caltrans) are used given the absence of Federal, County, and City standards specific to construction activities.

California Department of Transportation

In 2013, the California Department of Transportation (Caltrans) published the Transportation and Construction Vibration Guidance Manual to aid in the estimation and analysis of vibration impacts.

Typically, potential building and structural damages are the foremost concern when evaluating the impacts of construction-related vibrations. Table 4.I-3 summarizes Caltrans' vibration guidelines for building and structural damage.

Table 4.I-3
Caltrans Building Damage Vibration Guidelines

Structure and Condition	Significance Thresholds (in/sec PPV)	
	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, 2013.		

Existing Conditions

Though the Project Site is located in a busy commercial environment with high ambient noise levels, there are a number of noise-sensitive receptors in the vicinity of the Project Site. According to the *L.A. CEQA Thresholds Guide*, land uses sensitive to noise include residences, transient lodgings, schools, libraries, churches, hospitals, nursing homes, auditoriums, concert halls, amphitheaters, playgrounds, and parks.

To determine the efficacy of Mitigation Measure I-2, the list of noise sensitive receptors in proximity to the Project Site and the estimated ambient noise levels at those receptors were updated. The updated list and location of the noise sensitive receptors is provided in Table 4-I.4 and Figure 4-I.1**.** Ambient noise levels are reviewed in the subsection titled **LEVEL OF SIGNIFICANCE AFTER MITIGATION, Construction Noise** at pages 24-25.

Table 4-I.4
Noise-Sensitive Receptors

Sensitive Receptor	Distance to Project (feet)
1. Textile Building Lofts (315 E. 8th Street)	55
2. Jardin de la Infancia School (307 E. 7th Street)	100
3. 649 Lofts (649 Wall Street)	100
4. Flor 401 Lofts (401 E. 7th Street)	120
5. Lyndon Hotel (413 E. 7th Street)	200
6. Santee Court Apartments (716 S. Los Angeles Street)	240
7. Santee Village Apartments (738 Santee Street)	240
8. Garment Lofts (217 E. 8th Street)	280
9. Madison Hotel (423 E. 7th Street)	285
10. Ballington Plaza (622 Wall Street)	300
11. Santee Village Lofts (738 S. Los Angeles Street)	300
Source: *NETC, 2021*	

Figure 4-I.1

NOISE RECEPTOR LOCATION MAP
Southern California Flower Market Project
Imagery via Google

ENVIRONMENTAL IMPACTS

Thresholds of Significance

Appendix G to the CEQA Guidelines

In accordance with Appendix G to the *CEQA Guidelines*, a project would have a significant noise impact if the project would result in the following:

(a) 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;

(b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;

(c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;

(d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;

(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airstrip, expose people residing or working in the project area to excessive noise levels; or

(f) For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

As discussed in Section 4.A of the Original Draft EIR, the Project would not result in impacts related to issues “e” and “f.” Therefore, no further discussion of these issues is required.

City of Los Angeles CEQA Thresholds Guide

As set forth in the *L.A. CEQA Thresholds Guide*, a project would normally have a significant impact on noise levels from construction if the following occurs:

(a) Construction activities lasting more than one day would exceed existing ambient exterior noise levels by 10 dBA or more at a noise sensitive use;

(b) Construction activities lasting more than ten days in a three month period would exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use; or

(c) Construction activities would exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 PM and 7:00 AM Monday through Friday, before 8:00 AM or after 6:00 PM on Saturday, or anytime on Sunday.[5]

In addition, as set forth in the *L.A. CEQA Thresholds Guide*, a project would normally have a significant impact on noise levels from project operations if the following occurs:

(d) The project causes the ambient noise level measured at the property line of affected uses to increase by 3 dBA in CNEL to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.[6]

Project Impacts

Construction Noise

The Project Site is currently improved with two buildings (the north and south building). The Project will maintain and renovate the Project Site's north building, but will demolish the south building and construct a new building in in its place. To carry out that construction work, on-site activities would include the use of heavy equipment such as excavators, loaders, scrapers, graders, and similar tractor or bulldozer-type vehicles. Smaller equipment such as forklifts, skid steer loaders, trenchers, generators, and various powered hand tools would also be used. Off-site secondary noises could be generated by sources such as construction worker vehicles, vendor deliveries, and haul trucks. Table 4.I-5 lists the hourly noise levels of construction vehicles and equipment that could be used for the Project. This Table 4.I-5 has been updated as part of the analysis that evaluates the efficacy of Mitigation Measure I-2 to mitigate construction noise impacts. Table 4.I-5 is now based on *Federal Highway Administration's Roadway Construction Noise Model, version 2.0 instead of version 1.1*

The *L.A. CEQA Thresholds Guide* suggests that a project could result in a significant impact if construction activities lasting more than one day would exceed existing ambient exterior noise levels at a noise sensitive use by 10 dBA, or if activities lasting more than 10 days in a three month period would exceed existing ambient exterior noise levels by 5 dBA or more at such a use. Construction activities would not occur between 9:00 P.M. and 7:00 A.M. Monday through Friday, and are not anticipated to occur on Saturday. Sunday construction would be prohibited by the LAMC.

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[5] *City of Los Angeles L.A. CEQA Thresholds Guide, 2006, page I.1-3.*

[6] *Ibid.*

Table 4.I-5
Estimated Construction Equipment Noise Levels

Noise Source	Noise Level (dBA L_{eq})[1]					
	50 feet	100 feet	150 feet	200 feet	250 feet	300 feet
Auger Drill Rig	80.5	74.5	71.0	68.5	66.5	64.9
Backhoe	71.8	65.8	62.3	59.8	57.8	56.3
Bulldozer	76.0	70.0	66.5	64.0	62.0	60.5
Compactor (Roller)†	82.4	76.4	72.9	70.4	68.4	66.8
Concrete Mixer Truck	77.1	71.1	67.6	65.1	63.1	61.6
Concrete Pump Truck	76.5	70.5	67.0	64.5	62.5	60.9
Concrete Saw	78.4	72.4	68.9	66.4	64.4	62.8
Crane	66.2	60.2	56.7	54.2	52.3	50.7
Dump Truck (On-site)	77.7	71.7	68.2	65.7	63.7	62.2
Excavator	71.9	65.9	62.4	59.9	57.9	56.4
Front-End Loader	68.4	62.4	58.9	56.4	54.4	52.9
Shotcrete	74.0	68.0	64.5	62.0	60.0	58.5
Telescopic Handler (Graddall)†	88.3	82.3	78.8	76.3	74.3	72.7
Welding Machine	67.2	61.2	57.7	55.2	53.2	51.7

[1] Noise levels derived from FHWA RCNM 2.0 utilizing typical usage factors for equipment.
† Noise levels for these equipment are not representative of L_{eq} equivalent noise levels over periods of operations, but of L_{max} peak instantaneous noise levels associated with a single pass-by (i.e., drive-by) event. The L_{eq} equivalent noise levels associated with these equipment's operations over a given work period would be lower.

Source: NETC, 2021

For this Project, noise impacts were modeled using the noise reference levels of excavators and front-end loaders, as these vehicles would be utilized extensively to excavate for the Project. Compounding their noise impacts is the fact that these vehicles commonly operate in tandem. Excavators remove soils and front-end loaders transport this matter to on-site stockpiles or haul trucks for off-site export. As a result, excavators and front-end loaders have the greatest potential to cause sustained and significant noise impacts at nearby receptors. The impacts of other construction equipment and vehicles would be neither as loud nor as extensive over the duration of the Project's grading or other phases. Thus, this analysis examines a conservative scenario; the noise impacts of all other construction equipment and phases would not exceed the impacts analyzed here.

With regard to off-site construction-related noise impacts, grading activities would necessitate up to approximately 175 haul trips per workday to export excavated soils from the Project Site to a regional landfill. While this vehicle activity would marginally increase ambient noise levels along the haul route, it would not be expected to significantly increase ambient noise levels by 5 dBA or greater at any noise sensitive land use. According to the *L.A. CEQA Thresholds Guide*, a 3 dBA increase in roadway noise levels requires an approximate doubling of roadway traffic volume, assuming that travel speeds and fleet mix remain constant. Though the addition of haul trucks would alter the fleet mix of the Project haul route, their addition to local roadways would not nearly double those roads' traffic volumes, let alone increase their traffic to levels capable of producing 5 dBA ambient noise increases. As a result, off-site construction noise impacts related to haul trips would be less than significant.

Operational Noise

During Project operations, the development would produce noise from both on- and off-site sources. These are discussed below.

On-Site Noise Sources

Mechanical Equipment

Regulatory compliance with LAMC Sec.112.02 would ultimately ensure that noises from sources such as heating, ventilation, and air conditioning (HVAC) systems not increase ambient noise levels at neighboring occupied properties by more than 5 dBA. Given this regulation, high ambient noise levels in the Project's vicinity, distances to receptors, the relatively quiet operation of modern HVAC systems, and the Project's own height, these on-site noise sources would not be capable of causing the ambient noise levels of nearby uses to increase by 3 dBA CNEL to or within their respective *L.A. CEQA Thresholds Guide's* "Normally Unacceptable" of "Clearly Unacceptable" noise categories, or by 5 dBA or greater overall.

Commercial/Office Land Uses

Most noise generated by the proposed commercial and office uses would be internal, and audibility would be mostly confined to within the Project itself. The Project is located in a dense urban environment with many other commercial and office uses. The addition of the Project's commercial and office uses would not substantially alter the noise profile of its surrounding environment. The continuation of existing Flower Market operations would not constitute a change to the environment. The Project would not substantially alter any noises or pattern of noises related to the operations of the Flower Market.

Residential Land Uses

Noise from recurrent activities (e.g., conversation, consumer electronics, dog barking) and non-recurrent activities (e.g., social gatherings) at the Project Site could be audible to receptors passing by the site. Typical human conversations and residential-type noise levels are approximately 60 dB.[7] The closest noise-sensitive receptor to the Project Site is approximately 220 feet from the Project Site. Given the attenuation associated with the distance of the proposed balconies and pool to the closest noise-sensitive receptor, residential noise from the Project likely would not be audible at the location of the receptor and would not result in a noticeable increase in noise levels.

Auto-Related Activities

Operational noises related to the proposed onsite parking would include intermittent noise events such as door slamming and vehicle engine start-ups. Parking areas added by the Project would be located on the second and third floors of the proposed south building, as well as in a single underground level beneath this building. Other parking areas, such as those located atop the north building and to the north of this building, would be maintained by the Project and would not constitute a change to the environment. A transportation impact analysis conducted by Fehr and Peers (refer to Section 4.L [Transportation/Traffic]) of the Original Draft EIR determined that the Project would generate a maximum of 332 hourly net new vehicle trips, during the P.M. peak hour of traffic.[8] According to guidance from the Federal Transit Administration (FTA), a parking facility with a maximum hourly usage of 332 vehicles would be projected to produce a noise level of 51.6 dBA L_{eq} at a reference distance of 50 feet. This would not be capable of substantially elevating ambient noise levels at any nearby receptors. The impact potential of these on-site operational noise sources would be less than significant.

[7] *http://www.noisehelp.com/noise-level-chart.html.*

[8] *Fehr and Peers, Southern California Flower Market Transportation Impact Analysis, February 2018.*

Off-Site Noise Sources

The majority of the Project's operational noise impacts would be from off-site mobile sources associated with its net new daily trips. On a typical weekday, the Project would generate an estimated 3,076 net new daily trips, including 236 net new A.M. peak-hour trips and 332 net new P.M. peak-hour trips.[9] The noise impact of these vehicle trips was modeled using the Federal Highway Administration's (FHWA) Traffic Noise Model 2.5 (TNM 2.5). This noise prediction software uses traffic volumes, vehicle mix, average speeds, roadway geometry, and other inputs to calculate average noise levels along inputted roadway segments. For this analysis, an existing year (2016) No Project scenario was compared to an existing year With Project scenario. As shown on Tables 4.I-7 and 4.I-8, Project-related traffic would, individually, have a negligible impact on roadside ambient noise levels in the Project's vicinity. 24-hour CNEL impacts would similarly be minimal, far below *L.A. CEQA Thresholds Guide* criteria for significant operational noise impacts, which begin at 3 dBA. This impact would be less than significant.

Table 4.I-6
Existing A.M. Peak Hour Mobile Source Noise Levels

Roadway Segment	Estimated dBA, L_{eq} 1hr			
	No Project (2016)	With Project (2016)	Project Change	Significant Impact?
N/B Los Angeles St., N of 7th St.	67.4	67.5	0.1	No
S/B Los Angeles St., N of 7th St.	68.0	68.1	0.1	No
N/B Maple Ave., S of 8th St.	64.4	64.6	0.2	No
S/B Maple Ave., S of 8th St.	64.5	64.7	0.2	No
N/B Wall St., N of 7th St.	62.0	62.6	0.6	No
S/B Wall St., N of 7th St.	62.4	63.0	0.6	No
Source: DKA Planning, 2018.				

Table 4.I-7
Existing P.M. Peak Hour Mobile Source Noise Levels

Roadway Segment	Estimated dBA, L_{eq} 1hr			
	No Project (2016)	With Project (2016)	Project Change	Significant Impact?
N/B Los Angeles St., N of 7th St.	69.0	69.1	0.1	No
S/B Los Angeles St., N of 7th St.	69.1	69.1	0.0	No
N/B Maple Ave., S of 8th St.	66.4	66.6	0.2	No
S/B Maple Ave., S of 8th St.	66.0	66.2	0.2	No
N/B Wall St., N of 7th St.	64.4	64.6	0.2	No
S/B Wall St., N of 7th St.	64.1	64.3	0.2	No
Source: DKA Planning, 2018.				

[9] *Ibid.*

Vibration Impacts

Construction

As shown earlier on Table 4.I-5, construction of the Project would require equipment such as excavators, scrapers, graders, auger drill rigs, and haul trucks. Table 4.I-9 shows the distances at which groundborne vibration generated by these vehicles could exceed various Caltrans vibration criteria. As shown, auger drill rigs and large dozer type equipment such as excavators, scrapers, and graders operating within 7.5 feet of structures consisting of masonry walls could exceed these structures' 0.3 in/sec vibration threshold. Smaller construction equipment such as skid steer loaders would have to operate within 3.5 feet of these structures to be considered potentially hazardous; loaded delivery and haul trucks, within 6 feet.

Table 4.I-8
Estimated Construction-Related Vibration Levels

Construction Equipment Vibration Levels	Distance to PPV Vibration Criteria						
	0.01 in/sec	0.04 in/sec	0.1 in/sec	0.2 in/sec	0.25 in/sec	0.3 in/sec	0.5 in/sec
Large Dozer	135 ft.	45 ft.	22 ft.	11 ft.	9 ft.	7.5 ft.	< 5 ft.
Small Dozer	51 ft.	21 ft.	7.5 ft	3.5 ft	< 3.5 ft.	< 3.5 ft.	< 3.5 ft.
Auger Drill	135 ft.	45 ft.	22 ft.	11 ft.	9 ft.	7.5 ft.	< 5 ft.
Loaded Truck	120 ft.	41 ft.	19 ft.	9.5 ft.	7.5 ft.	6 ft.	< 4 ft.
Source: California Department of Transportation, 2013.							

A commercial building with masonry construction located at 769 Wall Street could experience groundborne vibrations in excess of this 0.3 in/sec vibration threshold for masonry structures, as it directly abuts the Project Site. However, it should be noted that equations for the prediction of groundborne vibration can greatly overestimate vibration levels at distances nearer than 10 feet, and even so, all construction activities beyond 7.5 feet from this receptor would not be estimated to generate groundborne vibration levels in excess of 0.3 inches per second. Nevertheless, without mitigation, this impact is conservatively considered significant.

Though Sensation Flowers, located at 709 Wall Street, also abuts the Project Site, it would not be expected to experience significantly considerable vibration impacts as a result of the Project. The north building that this receptor abuts would be maintained and renovated. Work related to this north building would not require the types of heavy-duty construction equipment capable of generating excessive groundborne vibrations. Nevertheless, without mitigation, this impact is conservatively considered significant.

Operation

During Project operations, there would be no significant stationary sources of ground-borne vibration, such as heavy equipment or industrial operations. Operational ground-borne vibration in the Project Site's vicinity would be generated by its related vehicle travel on local roadways. However as previously discussed, road vehicles rarely create vibration levels perceptible to humans unless road surfaces are poorly maintained and have potholes or bumps. Project-related traffic would expose nearby land uses and other sensitive receptors to vibrations far below levels associated with human annoyance or land-use disruption. As a result, the Project's long-term vibration impacts would be less than significant.

CUMULATIVE IMPACTS

Construction Noise

As discussed previously, construction activities would temporarily increase ambient noise levels at nearby receptors. Any other future developments that are built concurrently with the Project could further contribute to these temporary increases in ambient noise levels. It is possible that construction noises from other construction projects and the Proposed Project could cumulatively increase temporary noise levels at nearby sensitive receptors to above the *L.A. CEQA Thresholds Guide's* 5 dBA construction noise threshold should the construction of all projects overlap. However, appropriate mitigation strategies by all projects would reduce this potential. For example, it was determined that the implementation of Mitigation Measures I-1 and I-2 would prevent the Proposed Project's own construction noises from increasing noise levels above the threshold of 5 dBA. Similar mitigation strategies by any other construction projects would likewise reduce their own respective construction noise impacts and ensure that nearby receptors not experience individual or cumulative construction-related noise increases in excess of 5 dBA.

Operational Noise

The majority of the Project's long-term noise would come from traffic traveling to and from the Project Site. This addition of future traffic from any new developments in the Project Site area and overall ambient traffic growth would elevate ambient noise levels surrounding local roadways. However, the Project's individual contribution to permanent off-site ambient noise level increases would be minimal. As shown on Tables 4.I-10 and 4.I-11, with or without the addition of Project traffic, future roadside ambient noise levels would not increase by 3 dBA to or within their respective "Normally Unacceptable" or "Clearly Unacceptable" noise categories, or by 5 dBA or greater overall. Therefore, the Project's cumulative operational noise impact would be less than significant.

Table 4.I-9
Future A.M. Peak-Hour Mobile Source Noise Levels

Roadway Segment	Estimated dBA, L_{eq} 1hr				
	Existing (2016)	No Project (2022)	With Project (2022)	Total Change	Significant Impact?
N/B Figueroa St., S of Olympic Blvd.	67.4	68.8	68.8	1.4	No
S/B Figueroa St., S of Olympic Blvd.	68.0	69.2	69.2	1.2	No
N/B Figueroa St., N of Olympic Blvd. (E)	64.4	65.4	65.6	1.2	No
N/B Figueroa St., N of Olympic Blvd. (W)	64.5	65.5	65.6	1.1	No
E/B Olympic Blvd., W of Figueroa St.	62.0	63.7	63.8	1.8	No
W/B Olympic Blvd., W of Figueroa St.	62.4	63.7	63.8	1.4	No
E/B Olympic Blvd., E of Figueroa St.	67.4	68.8	68.8	1.4	No
Source: DKA Planning, 2018.					

Table 4.I-10
Future P.M. Peak-Hour Mobile Source Noise Levels

Roadway Segment	Estimated dBA, L_{eq} 1hr				
	Existing (2016)	No Project (2022)	With Project (2022)	Total Change	Significant Impact?
N/B Figueroa St., S of Olympic Blvd.	69.0	70.2	70.2	1.2	No
S/B Figueroa St., S of Olympic Blvd.	69.1	70.3	70.3	1.2	No
N/B Figueroa St., N of Olympic Blvd. (E)	66.4	67.5	67.6	1.2	No
N/B Figueroa St., N of Olympic Blvd. (W)	66.0	67.1	67.2	1.2	No
E/B Olympic Blvd., W of Figueroa St.	64.4	65.6	65.7	1.3	No
W/B Olympic Blvd., W of Figueroa St.	64.1	65.3	65.4	1.3	No
E/B Olympic Blvd., E of Figueroa St.	69.0	70.2	70.2	1.2	No
Source: DKA Planning, 2018.					

MITIGATION MEASURES

Construction Noise

To ensure that the Project's construction-related noise levels do not exceed 75 dBA and that construction-related noise increases at nearby noise-sensitive receptors do not exceed 5 dBA, the mitigation measures I-1 and I-2 are required. The specifics of Measure I-2 have been modified[10] based on the supplemental noise report provided at Appendix I-3:

I-1 All capable diesel-powered construction vehicles shall be equipped with exhaust mufflers or other suitable noise reduction devices.

I-2 Sound barriers rated to achieve sound attenuation of at least 15 dBA[11] with a minimum height of 24 feet shall be erected along the Project site's boundaries that face sensitive receptors, namely the property lines that parallel Maple Avenue and E. 7th Street. Sound barriers capable of achieving a sound attenuation of at least 15 dBA and of the same minimum height of 24 feet shall also be erected along portions of the Project's property line that parallel Wall Street and delineate the North Parking Area. Sound barriers capable of achieving a sound attenuation of at least 6 dBA with a minimum height of 10 feet shall be erected along all other Project construction boundaries or property lines. Additionally, movable sound barriers composed of materials rated to achieve a sound attenuation of at least 15 dBA with a minimum height of 24 feet shall be utilized to shield line of sight paths from operating heavy equipment[12] to surrounding sensitive receptors. The distance between the operating heavy equipment and the moveable sound barriers shall be determined based on achieving the performance standard of an increase in ambient noise levels of not more than 5 dBA L_{eq}. The project applicant or its contractor shall submit an implementation plan and an acoustical study detailing the specifications of the moveable sound barrier and the construction process for deploying the moveable sound barriers to achieve the standard of sound attenuation of 15 dBA to the City for review and approval prior to the issuance of any grading or excavation permit.

[10] The specific language changes made to Measure I-2 relative to the original version of this measure are shown at page 17 of Appendix I-3.

[11] The Project Site boundaries also coincide with the boundaries of construction of the Project.

[12] "Heavy equipment" refers to bulldozers, backhoes, excavators, and other similarly large construction vehicles.

Construction Vibration

To ensure that construction-related vibration impacts would be less than significant, the following mitigation measures are required:

I-3 Construction activities that produce vibration, such as demolition, excavation, and earthmoving, shall be sequenced so that vibration sources within 7.5 feet of 769 Wall Street do not operate simultaneously.

I-4 No pile driving shall occur as part of Project construction.

I-5 Pre-construction surveys shall be performed to document the conditions of 769 Wall Street. A structural monitoring program shall be implemented and recorded during construction. The performance standards of the structure-monitoring plan shall include the following:

- Documentation, consisting of video and/or photographic documentation of accessible and visible areas on the exterior of the building.
- A registered civil engineer or certified engineering geologist shall develop recommendations for a structure-monitoring program.
- The structure-monitoring program shall survey for vertical and horizontal movement, as well as vibration thresholds. If the thresholds are met or exceeded, or if noticeable structural damage becomes evident to the Project contractor, work shall stop in the area of the affected building until measures have been taken to prevent construction-related damage to the structure.
- The structure-monitoring program shall be submitted to the Department of Building and Safety and received into the case file for the associated discretionary action permitting the Project prior to initiating any construction activities.

I-6 Construction equipment and vehicles capable of generating excessive vibration levels including, but not limited to, excavators, loaders, backhoes, scrapers, and graders, shall maintain a setback of at least 7.5 feet from Sensation Flowers at all times.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Construction Noise

To evaluate the efficacy of Mitigation Measure I-2, a supplemental analysis of the availability of moveable sound barriers was undertaken. (Refer to pages 3-6 of Appendix I-3.) That analysis concluded that such barriers are commercially available and have been generally effective in mitigating construction noise. Available sound barrier systems range from lightweight options that

can be manually positioned by construction workers to more robust applications that can be moved by light duty equipment, which would contribute minimally to overall construction noise levels. Further, the height of available sound barrier (minimum height of 24 feet) would facilitate in substantially reducing sight lines to even the tallest nearby sensitive receptors. The use of moveable barriers would ensure that heavy equipment need not operate far from any barrier, eliminating the possibility of sight lines "passing over" barriers when equipment operates at too far a distance set back from them. Also, when construction equipment operates below the grade of the moveable barriers, such as during site excavation, a greater barrier-to-equipment setback distance can be implemented. For example, if an excavator were to operate from a sub-grade plane that is five feet below the plane of the barrier's installation, then the effective height of the barrier relative to the equipment would be increased by five feet (i.e., the top of a 24-foot tall barrier would then be 29-feet above the plane of the working excavator).

To determine the efficacy of such moveable sound barriers at the Project Site, the ambient noise levels at the noise-sensitive receptors were determined. In connection with the Original Draft EIR prepared for the Project, short-term noise readings were taken at locations surrounding the Project Site to determine ambient noise conditions. For all noise monitoring locations, ambient noise was primarily attributable to vehicle traffic along nearby roadways. **Table 4.I-11** summarizes the results of this monitoring. These measured noise levels were subsequently utilized to estimate ambient noise levels at analyzed sensitive receptor locations, which are shown in **Table 4.I-12**. For Textile Building Lofts, Santee Court Apartments/Santee Villages Apartments[13], the top floor of 649 Lofts, and the top floor of Flor 401 Lofts, ambient noise levels were estimated in relation to these receptors' distances from measured roadway noise sources (i.e., Maple Avenue, Wall Street, and 7th Street). Appendix I-3, Exhibit D thereto details the methodology for calculating the estimated ambient noise levels.

[13] Note that a correction was made to the estimated ambient noise levels at the Santee Court Apartments/Santee Village Apartments relative to the level reported in the Original Draft EIR, which was due to the mathematical discrepancy discussed in Exhibit C to Appendix I-3. Also, the Santee Court Apartments and the Santee Village Apartments are part of the same residential complex, experience similar ambient noise levels, and are located at a similar distance from the Project. Therefore, for analytical purposes, the impacts to each receptor would be similar. The one notable distinction between these receptors is that Santee Village Apartments contains an additional levels of residences than Santee Court. Thus when assessing impacts to the top floor of Santee Village/Court Apartments, this report refers to the 11th (top) floor of Santee Village Apartments.

Table 4.I-11
Existing Daytime Ambient Noise Levels

Noise Measurement Location	Noise Level (dBA L_{eq})
1. Maple Avenue	64.8
2. Wall Street	68.0
3. Jardin de la Infancia School (7th Street)	73.4
Source: DKA Planning, 2017.	

Table 4.I-12
Daytime Ambient Noise Levels at Sensitive Receptor Locations

Sensitive Receptor[A]	Noise Level (dBA L_{eq})
Textile Building Lofts – 2nd Floor	65.4
Textile Building Lofts – 12th Floor	58.5
Santee Court/Villages Apartments – 2nd Floor	57.8
Santee Court/Villages Apartments – 11th Floor	57.2
Jardin de la Infancia School	73.4
649 Lofts – 1st Floor	73.4
649 Lofts – 7th Floor	69.4
Flor 401 Lofts – 1st Floor	73.4
Flor 401 Lofts – 6th Floor	69.6
[A] For Textile Building Lofts, Santee Court/Villages Apartments, 649 Lofts, and 401 Lofts, separate ambient noise levels have been estimated for each receptors' lowest and highest residentially occupied floor levels to ensure that the following construction noise analysis accounts for the varying baseline ambient noise conditions and noise impacts that floors of different heights experience. *Source: DKA Planning, 2017, and NTEC 2021.*	

The noise reduction associated with the moveable sound barriers described in revised Mitigation Measure I-2 was analyzed in the Supplemental Noise Analysis in Appendix I-3. The revisions to Mitigation Measure I-2 would have the effect of requiring moveable sound barriers to be continually positioned in manners capable of shielding sightlines from heavy equipment noise sources to all surrounding identified sensitive receptors. The revised Mitigation Measure I-2 would thereby also provide additional mitigations to newly identified multi-story residential sensitive receptors located along 7th Street, though impacts to these receptors would be less than significant without mitigation. Just as moveable sound barriers would be capable of shielding line

of sight noise paths to the nearest and tallest sensitive receptor, Textile Building Lofts, they would be even more adept at shielding noise paths to the comparatively shorter and more distant 649 Lofts, Flor 401 Lofts, Lyndon Hotel, and Madison Hotel sensitive receptors, as the line of sight angles to these receptors would be comparatively less steep.

Using the noise attenuation associated with the moveable noise barriers discussed in Appendix I-3, the increase in noise levels at the nearest receptors was calculated for the construction periods when grading operations are ongoing using an excavator and front-end loader/bulldozer (the scenario evaluated in the Original Draft EIR). The calculations assumed that excavation and grading would occur as follows: (1) the perimeter of the site would be trenched to a depth of approximately five feet, and shoring would be installed. (2) The site would be excavated to the five-foot depth of the previously installed trenching and shoring. (3) This process would repeat in no greater than five-foot increments until the proper depth is reached. Further, the moveable noise barriers would be placed on grade and in front of excavation equipment. As the equipment moves toward the closet sensitive receptors (Textile Building Lofts and Santee Court/Santee Village Apartments), the barriers would be moved as well so they remain in front of the exaction and grading equipment. A detailed example of implementation of the moveable barriers is provided at pages 12-17 of Appendix I-3, including the distances between the barriers and the construction equipment as the equipment moves closer to the closest sensitive receptors, and the resulting noise attenuation attributable to the barriers. **Table 4.I-13** shows the noise levels based on implementation of revised Mitigation Measure I-2.[14]

[14] For the estimated construction noise levels without use of the moveable sound barriers, refer to pages 10-11, **Table 5** in Appendix I-3.

Table 4.I-13
Mitigated Construction Noise Levels – Grading

Receptor	Construction Noise Level (dBA L_{eq})	Existing Ambient Noise Level (dBA L_{eq})	New Noise Level (dBA L_{eq})[B]	Increase
Equipment: Excavator and Front-End Loader/Bulldozer				
Textile Building Lofts – 2nd Floor	60.7	65.4	66.7	1.3
Textile Building Lofts – 12th Floor	59.7	58.5	62.12	3.7
Santee Court/Village Apartments – 2nd Floor	48.6	57.8	58.3	0.5
Santee Court/Village Apartments – 11th Floor	47.8	57.2	57.7	0.5
Jardin de la Infancia School	56.9	73.4	73.5	0.1
649 Lofts – 1st Floor	56.9	73.4	73.5	0.1
649 Lofts – 7th Floor	55.1	69.4	69.6	0.2
Flor 401 Lofts – 1st Floor	55.6	73.4	73.5	0.1
Flor 401 Lofts – 6th Floor	54.2	69.6	69.7	0.1

[A] These noise levels represent the logarithmic sum of each receptors' construction noise level and ambient noise level.

Source: NTEC, 2021.

Therefore, based on this analysis, the Project's construction noise impacts would be less than significant after implementation of Mitigation Measures I-1 and I-2 2 (i.e., the increase in noise levels would be less than 5 dBA) at the receptors listed in **Table 4.I-13**. The receptors listed in **Table 4.I-4** that are not listed in **Table 4.I-13** (Lyndon House, Garment Lofts, Madison Hotel, Santee Village Lofts and Ballington Plaza) would also not experience an increase in noise level of greater than 5 dBA because those other receptors are farther away than the receptors listed in **Table 4.I-13**.

With regard to cumulative construction noise, the Project's construction activities would not contribute substantially to any cumulative construction noise impacts due to the implementation of Mitigation Measures I-1 and I-2. The Project's potential to produce significant cumulative construction noise impacts at nearby sensitive receptors would then be considered less than significant.

Operational Noise

Impacts related to operational noise would be less than significant.

Construction Vibration

Mitigation Measures I-3 through I-6 would reduce the Project's vibration sources and implement a comprehensive monitoring program for 769 Wall Street. These measures would substantially reduce the potential for the Project's construction-related vibrations to damage the receptor. Mitigation Measure I-6 would prevent heavy-duty construction equipment and vehicles from operating within a potentially hazardous distance from Sensation Flowers. With these measures in place, the Project's construction vibration impact would be less than significant.