Appendix I

Construction Noise Impact Report

Montgomery-Gibbs Executive Airport Master Plan Update

Construction Noise Impact Report

July 2025 | 02373.00007.001

Submitted to:

City of San Diego
Real Estate Assets, Airports Division
3750 John J. Montgomery Drive, MS 14
San Diego, CA 92123

Prepared for:

C&S Engineers, Inc.
2355 Northside Drive, Suite 350
San Diego, CA 92108

Prepared by:

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

This page intentionally left blank

TABLE OF CONTENTS

Section **Page**

TABLE OF CONTENTS (cont.)

LIST OF APPENDICES

LIST OF FIGURES

LIST OF TABLES

ACRONYMS AND ABBREVIATIONS

AIA	Airport Influence Area
Airport	Montgomery-Gibbs Executive Airport
ALUCP	Airport Land Use Compatibility Plan
AMP	Airport Master Plan
ANSI	American National Standards Institute
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dB	decibel
dBA	A-weighted decibel
FAA	Federal Aviation Administration
in/sec	inches/second
Hz	Hertz
kHz	kilohertz
L_{DN}	day-night average sound level
L_{EQ}	time-averaged noise level
MM	mitigation measure
mPa	micro Pascal
mph	miles per hour
MYF	Montgomery-Gibbs Executive Airport (FAA identifier)
NSLU	noise sensitive land use
PPV	peak particle velocity
RCNM	Roadway Construction Noise Model
sf	square foot/feet
SPL	sound pressure level
SR	State Route
USDOT	U.S. Department of Transportation

This page intentionally left blank

EXECUTIVE SUMMARY

This report presents an assessment of potential construction noise impacts associated with the proposed Airport Master Plan (AMP) for Montgomery-Gibbs Executive Airport (Airport).

The AMP includes improvements that would be contained within the boundaries of the Airport, which is in the city of San Diego community of Kearny Mesa. The AMP would involve both landside and airside components. Improvements associated with the AMP would be carried out in phases over a 20-year period. Construction within the AMP area would include demolition of existing airport infrastructure and the construction of new and expanded facilities.

The exact types and locations of construction equipment and the locations of off-site receptors that will be present during construction are not known at this time. As such, construction noise impacts from both equipment and construction traffic could be potentially significant. Mitigation measure (MM) MM NOI-1 sets construction noise standards for individual projects within the AMP area. MM NOI-2 requires the preparation of a construction management plan to ensure noise levels comply with these standards.

Vibration from construction equipment may be significant if used within proximity to the historically designated hangars at the Airport. Mitigation measure MM NOI-3 would require that vibration-generating construction equipment does not generate vibration levels that exceed 0.25 inch/second peak particle velocity (PPV) at historic structures.

This page intentionally left blank

1.0 INTRODUCTION

1.1 PURPOSE OF THE REPORT

This report analyzes, at a programmatic level, potential construction-related noise and vibration impacts associated with the proposed Airport Master Plan (AMP) for Montgomery-Gibbs Executive Airport (also referred to as the "Airport" or by its Federal Aviation Administration [FAA] identifier "MYF"). The analysis includes a description of existing conditions in the Airport vicinity and an assessment of potential impacts associated with the construction of the projects included in the AMP. Analysis within this report addresses the relevant issues listed in Appendix G of the California Environmental Quality Act (CEQA) Guidelines.

1.2 PROJECT BACKGROUND

The City of San Diego (City) owns and operates MYF as a General Aviation airport. Airport planning occurs at the national, state, regional, and local levels; in 2017, the City began developing an update to the AMP to determine the extent, type, and schedule of development needed. The AMP presents the community and the Airport's vision for a 20-year strategic development plan based on the forecast of activity. It is used as a decision-making tool and is intended to complement other local and regional plans.

The AMP consists of a report documenting existing conditions of the Airport, a forecast of activity, facility requirements (the Airport's needs based on the forecast and compliance with FAA Design Standards for airports), development and evaluation of alternatives to meet those needs, and a funding plan for that development. AMP objectives include maintaining a balance between airport user interests and the surrounding community, remedying areas with a history of potential risk of collisions or runway incursions, and modernizing Airport facilities.

1.3 PROJECT LOCATION

The AMP includes improvements that would be contained within the boundaries of the Airport, which is in the City of San Diego community of Kearny Mesa. The Airport site is north of Aero Drive, east of State Route (SR) 163, south of Balboa Avenue, and west of Ruffin Road (Refer to Figure 1, *Regional Location*, and Figure 2, *Project Vicinity [Aerial Photograph]*).

1.4 PROJECT DESCRIPTION

The AMP includes an Airport Layout Plan that graphically depicts all planned development at the Airport within the 20-year planning period as determined in the AMP. This drawing requires approval by the FAA, which makes the Airport eligible to receive federal funding for airport improvements and maintenance under the FAA's Airport Improvement Program.

The AMP would involve both landside and airside components. The landside components include up to 92 new hangars, as well as space for 48 new tie-down areas, within the westernmost portion of the Airport. Implementation of several of the larger 75,000 square-foot (sf) hangars would require encroachment into the hotel leasehold. A 6,400-sf footprint expansion to the existing 10,000-sf terminal building is proposed. This expansion is due to a deficit in existing space and would not increase services

or the number of employees. Other improvements include the provision of a public viewing area (outside the fence line) and an unleaded avgas fuel tank.

Airside improvements proposed by the AMP include removal of pavement at the end of Runway 5 and Taxiway F, along with reconfigurations of other taxiways and construction of new run-up areas. The main airside improvement proposed is the removal of the Runway 28R displaced threshold, which was put into place by City of San Diego Resolution R-280194 passed in 1992. This would result in the threshold being moved 1,199 feet from approximately the location of Taxiway B, eastward to Taxiway A. This component would move safety areas, such as the Runway Protection Zone and approach surfaces, as well as require associated improvements such as relocation of glideslope and related equipment. As part of the AMP, an approximately 4.5-acre area adjacent to Aero Drive and Glenn H Curtis Road would remain as "Aeronautical" land use. While the specific land uses for this area have not yet been determined, it is anticipated that the uses would be consistent with the other landside aeronautical support facilities found at the Airport and dependent on future aeronautical demand. Refer to Figure 3, *Proposed Airport Plan*.

1.5 NOISE AND SOUND LEVEL DESCRIPTORS AND TERMINOLOGY

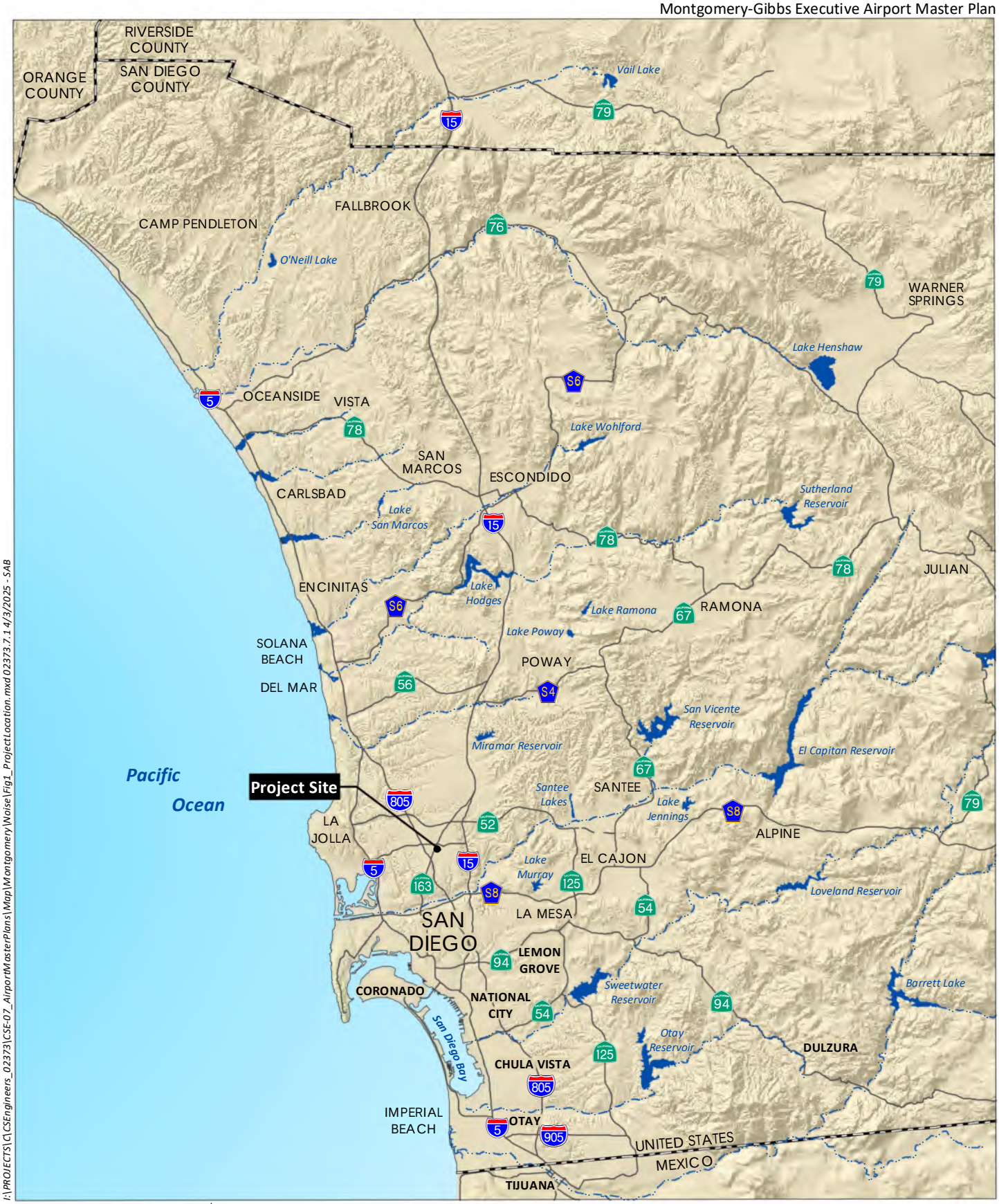
All noise level or sound level values presented herein are expressed in terms of decibels (dB), with A weighting (dBA) to approximate the hearing sensitivity of humans. Time-averaged noise levels are expressed by the symbol L_{EQ}, with a specified duration. The Community Noise Equivalent Level (CNEL) is a 24-hour average, where noise levels during the evening hours of 7:00 p.m. to 10:00 p.m. have an added 5 dBA weighting, and sound levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. have an added 10 dBA weighting. This is similar to the Day Night sound level (L_{DN}), which is a 24-hour average with an added 10 dBA weighting on the same nighttime hours but no added weighting on the evening hours. Sound levels expressed in CNEL are always based on dBA. These metrics are used to express noise levels for both measurement and municipal regulations, as well as for land use guidelines and enforcement of noise ordinances.

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is defined as loud, unexpected, or annoying sound.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver contribute to the sound level and characteristics of the noise perceived by the receiver. The field of acoustics deals primarily with the propagation and control of sound.

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz (kHz), or thousands of Hertz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

The amplitude of pressure waves generated by a sound source determines the loudness of that source. A logarithmic scale is used to describe sound pressure level (SPL) in terms of dBA units. The threshold of hearing for the human ear is about 0 dBA, which corresponds to 20 micro Pascals (mPa).



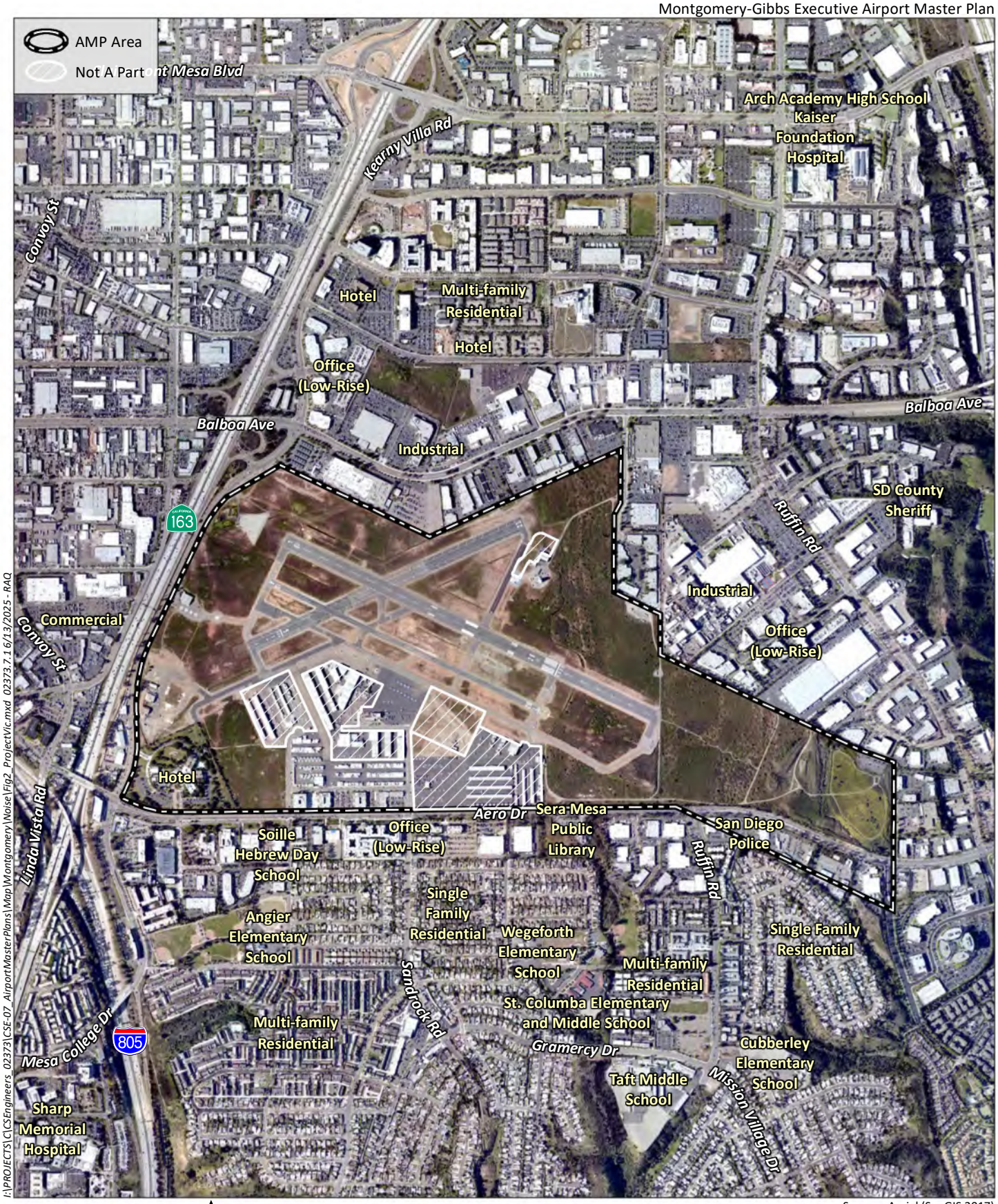
I:\PROJECTS\C\CSEngineers_02373\CSE-07_AirportMasterPlans\Map\Montgomery\Noise\Fig1_ProjectLocation.mxd 02373.7.1 4/3/2025 - SAB

Source: Base Map Layers (SanGIS, 2016)

HELIX Environmental Planning

Regional Location

Figure 1



I:\PROJECTS\C\CSEngineers_02373\CSE-07_AirportMasterPlans\Map\Montgomery\Noise\Fig2_ProjectVic.mxd 02373.7.16/13/2025 - RAQ

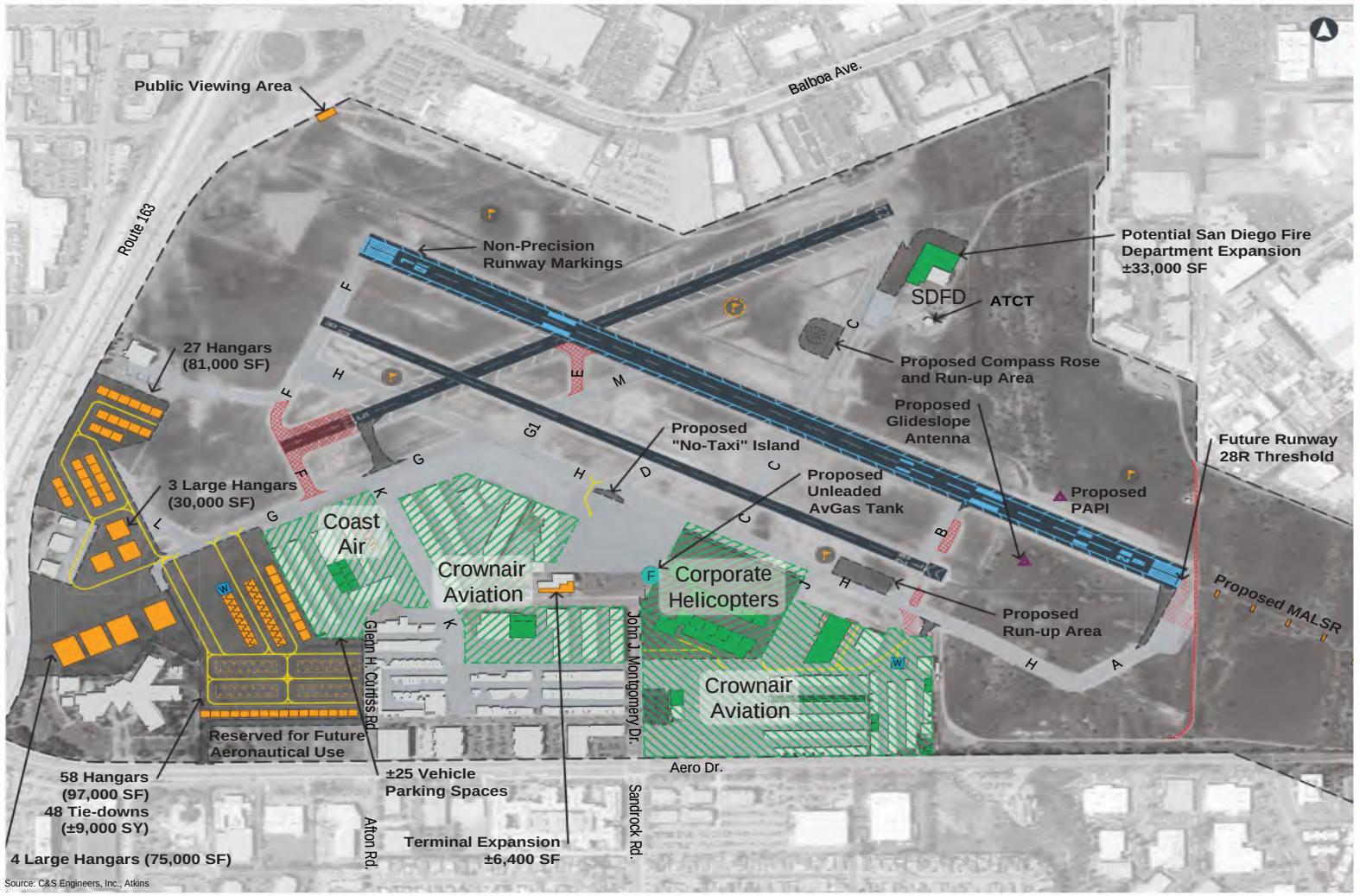
0 1,500 Feet

Source: Aerial (SanGIS 2017)

HELIX Environmental Planning

Project Vicinity (Aerial Photograph)

Figure 2



SD Airports

Montgomery-Gibbs Executive Airport Master Plan

Legend

- Property Line
- Existing Buildings
- Proposed Buildings
- Existing Airfield Pavement
- Proposed Pavement
- Proposed Demolition
- Private Leasehold Area
- Private Leasehold Proposed Development
- Proposed Taxiway/Taxilane Centerline
- Proposed Runway Markings
- Proposed Aircraft Tie-Downs
- Proposed Wash Rack
- Proposed Fuel Island
- Proposed Segmented Circle
- Proposed Wind Cone
- Proposed Navigational Aid

250' 0' 250' 500'

ATKINS
Member of the SNC-Lavalin Group

C&S COMPANIES

I:\PROJECTS\C\CSEngineers_02373\CSE-07_AirportMasterPlans\Map\Montgomery\Noise\Fig3_ProposedAirportPlan.indd 02373.7.1 4/3/2025 - SAB

Source: C&S Companies 2024

HELIX Environmental Planning

Proposed Airport Plan

Figure 3

Because decibels are logarithmic units, SPL cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dBA increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dBA higher than one source under the same conditions.

1.6 NOISE AND VIBRATION SENSITIVE LAND USES

Noise-sensitive land uses (NSLUs) are land uses that may be subject to stress and/or interference from excessive noise, including residences, hospitals, schools, hotels, resorts, libraries, sensitive wildlife habitat, or other similar facilities or uses where quiet is an important attribute of the environment. Industrial and commercial land uses are generally not considered sensitive to noise. Noise receptors are individual locations that may be affected by noise.

Land uses in which ground-borne vibration could potentially interfere with operations or equipment, such as research, manufacturing, hospitals, and university research operations (California Department of Transportation [Caltrans] 2020) are considered "vibration-sensitive." The structural integrity of specific buildings, particularly old or historic structures, has the potential to be vibration-sensitive due to their age, method of construction, or other factors. The degree of sensitivity depends on the specific equipment that would be affected by the ground-borne vibration. In addition, excessive levels of ground-borne vibration of either a regular or an intermittent nature can result in annoyance to residential uses or schools.

2.0 REGULATORY FRAMEWORK

2.1 CITY OF SAN DIEGO MUNICIPAL CODE

2.1.1 Chapter 5, Article 9.5, Division 4, §59.5.0404 Construction Noise

(a) It shall be unlawful for any person, between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on legal holidays as specified in Section 21.04 of the San Diego Municipal Code, with exception of Columbus Day and Washington's Birthday, or on Sundays, to erect, construct, demolish, excavate for, alter or repair any building or structure in such a manner as to create disturbing, excessive or offensive noise unless a permit has been applied for and granted beforehand by the Noise Abatement and Control Administrator. In granting such permit, the Administrator shall consider whether the construction noise in the vicinity of the proposed work site would be less objectionable at night than during the daytime because of different population densities or different neighboring activities; whether obstruction and interference with traffic particularly on streets of major importance, would be less objectionable at night than during the daytime; whether the type of work to be performed emits noises at such a low level as to not cause significant disturbances in the vicinity of the work site; the character and nature of the neighborhood of the proposed work site; whether great economic hardship would occur if the work were spread over a longer time; whether proposed night work is in the general public interest; and he shall prescribe such conditions, working times, types of construction equipment to be used, and permissible noise levels as he deems to be required in the public interest.

(b) Except as provided in subsection (c) hereof, it shall be unlawful for any person, including the City of San Diego, to conduct any construction activity so as to cause, at or beyond the property lines of any property zoned residential, an average sound level greater than 75 dBA during the 12-hour period from 7:00 a.m. to 7:00 p.m.

(c) The provisions of subsection (b) of this section shall not apply to construction equipment used in connection with emergency work, provided the Administrator is notified within 48 hours after commencement of work.

2.1.2 Chapter 5, Article 9.5, Division 4, §59.5.0401 Sound Level Limits

a) It shall be unlawful for any person to cause noise by any means to the extent that the one–hour average sound level exceeds the applicable limit given in Table 1, *City of San Diego Applicable Noise Limits*, at any location in the City of San Diego on or beyond the boundaries of the property on which the noise is produced. The noise subject to these limits is that part of the total noise at the specified location that is due solely to the action of said person.

Table 1
CITY OF SAN DIEGO TABLE OF APPLICABLE NOISE LIMITS

Land Use Zone	Time of Day	One-hour Average Sound Level (dBA)
Single Family Residential	7:00 a.m. to 7:00 p.m.	50
	7:00 p.m. to 10:00 p.m.	45
	10:00 p.m. to 7:00 a.m.	40
Multi-Family Residential (up to a maximum density of 1/2000)	7:00 a.m. to 7:00 p.m.	55
	7:00 p.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	45
All other Residential	7:00 a.m. to 7:00 p.m.	60
	7:00 p.m. to 10:00 p.m.	55
	10:00 p.m. to 7:00 a.m.	50
Commercial	7:00 a.m. to 7:00 p.m.	65
	7:00 p.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	60
Industrial or Agricultural	Anytime	75

Source: City of San Diego Municipal Code, Chapter 5, Article 9.5, Division 4, §59.5.0401, Sound Level Limits

3.0 EXISTING NOISE ENVIRONMENT

3.1 SURROUNDING LAND USES

MYF is surrounded by commercial, industrial, and residential uses. The nearest residential use is a multi-family residential development called Olympus Corsair. The development is located at the southwest corner of Aero Drive and Sandrock Road. Single-family residences are located further south. Schools in the area include Le Lycée Français de San Diego, Soille San Diego Hebrew Day School, San Diego College of Continuing Education North City Campus, Wegeforth Elementary School, Angier Elementary School, SET High School, Montessori School of Kearny Mesa, and Imagine Montessori Bilingual Preschool.

Industrial uses are located between the Airport and Balboa Avenue to the north and between the Airport and Ruffin Road to the east. Commercial and industrial uses are located south of the Airport along Aero Drive. A mixed-use development (apartment complex with some ground floor retail) is located directly south of the Airport. The Airport is generally bound by Kearny Villa Road to the west and Aero Drive to the south. Private leasehold areas are located within the Airport, south of the airfield, and north of Aero Drive. The Four Points by Sheraton hotel is located at the southwestern corner of the AMP area. Refer to Figure 2 for nearby land uses.

The noise environment for the neighborhoods surrounding the Airport varies depending on location and proximity to flightpaths to and from the Airport. Unless aircraft are taking off or landing, the noise environment in the industrial and commercial areas surrounding the Airport is dominated by traffic noise from nearby roadways, including Aero Drive, Balboa Avenue, Ruffin Road, as well as freeways such as SR 163 and Interstate 15. Except for the Olympus Corsair multi-family residential development on Aero Drive, residential areas surrounding the Airport are generally subject to less traffic noise.

3.1.1 Montgomery-Gibbs Executive Airport

The AMP area is located within the MYF property and is therefore within its Airport Influence Area (AIA). The component sites are located within the 65 dBA CNEL noise contour, as shown in the Airport Land Use Compatibility Plan (ALUCP; San Diego County Regional Airport Authority 2010). MYF has voluntarily enacted noise abatement procedures that are designed to reduce the amount of noise pollution in the surrounding community. These procedures include a combination of restricting departure times, positioning the use of louder aircraft on runways further from noise-sensitive land uses, and modification of flight operations during departures, ascents, landings, and descents.

No uses within the AMP area are considered noise-sensitive. Three existing hangars within the MYF property (Buildings 6, 7, and 8) were analyzed in the Historic Resource Technical Report prepared for the AMP (IS Architecture 2025) and are considered historic resources. As such, due to their age, these three hangars are considered vibration-sensitive.

3.2 AMBIENT NOISE LEVELS

A noise survey was conducted to document noise levels in the area surrounding the Airport. Measurement locations were chosen due to the proximity to the Airport and potential sensitivity to future construction noise. The short-term measurements show the average sound level over roughly 10- to 15-minute periods on a weekday in June 2018. Seven locations were chosen for 10-minute ambient noise surveys. Of these locations, five were measured south of the Airport, and two were measured north of the Airport. Noise measurement locations are shown on Figure 4, *Baseline Noise Measurement Locations*.

The community noise survey represents a range of the existing conditions and provides a representation of baseline conditions in the study area. The sources of noise varied between sites, but the primary noise generator in most locations is vehicular traffic.

The measured average noise levels ranged from 54.3 to 71 dBA L_{EQ}. The loudest average noise level was 71.0 dBA L_{EQ}, at a location along Aero Drive by the Serra Mesa – Kearny Mesa Library. The elevated noise level at this location is due to traffic along Aero Drive traveling at a relatively high speed (45 mph), unimpeded by intersections or stop signs. The quietest areas are located in the residential

developments north of the Airport and at the hotel property within the AMP area. Though these measurements provide a snapshot observation of the noise environment, noise can fluctuate widely throughout the day. Complete noise monitoring results are included in Table 2, *Noise Monitoring Results*. Individual site survey sheets can be found in Appendix A, *Site Survey Measurement Sheets*.

Table 2
NOISE MONITORING RESULTS

Site	Location	Time	Measured Noise Level (dBA L_{EQ})
M1	Four Points by Sheraton Hotel	9:53 a.m. – 10:03 a.m.	54.3
M2	Intersection of Kearny Villa Rd. and Aero Dr.	9:37 a.m. – 9:47 a.m.	57.3
M3	Intersection of Aero Dr. and Afton Rd.	10:14 a.m. – 10:24 a.m.	61.2
M4	Intersection of Aero Dr. and John J. Montgomery Dr.	10:31 a.m. – 10:41 a.m.	66.9
M5	Serra Mesa – Kearny Mesa Library along Aero Dr.	10:52 a.m. – 11:02 a.m.	71.0
M6	Spectrum Center Blvd. approx. 175 feet west of Paramount Dr.	2:20 p.m. – 2: 30 p.m.	57.9
M7	Tech Way approx. 315 feet southeast of Kearny Villa Rd.	1:51 p.m. – 2:01 p.m.	67.0

Note: Site measurements taken on June 6 and June 8, 2018.

4.0 ANALYSIS METHODOLOGY AND ASSUMPTIONS

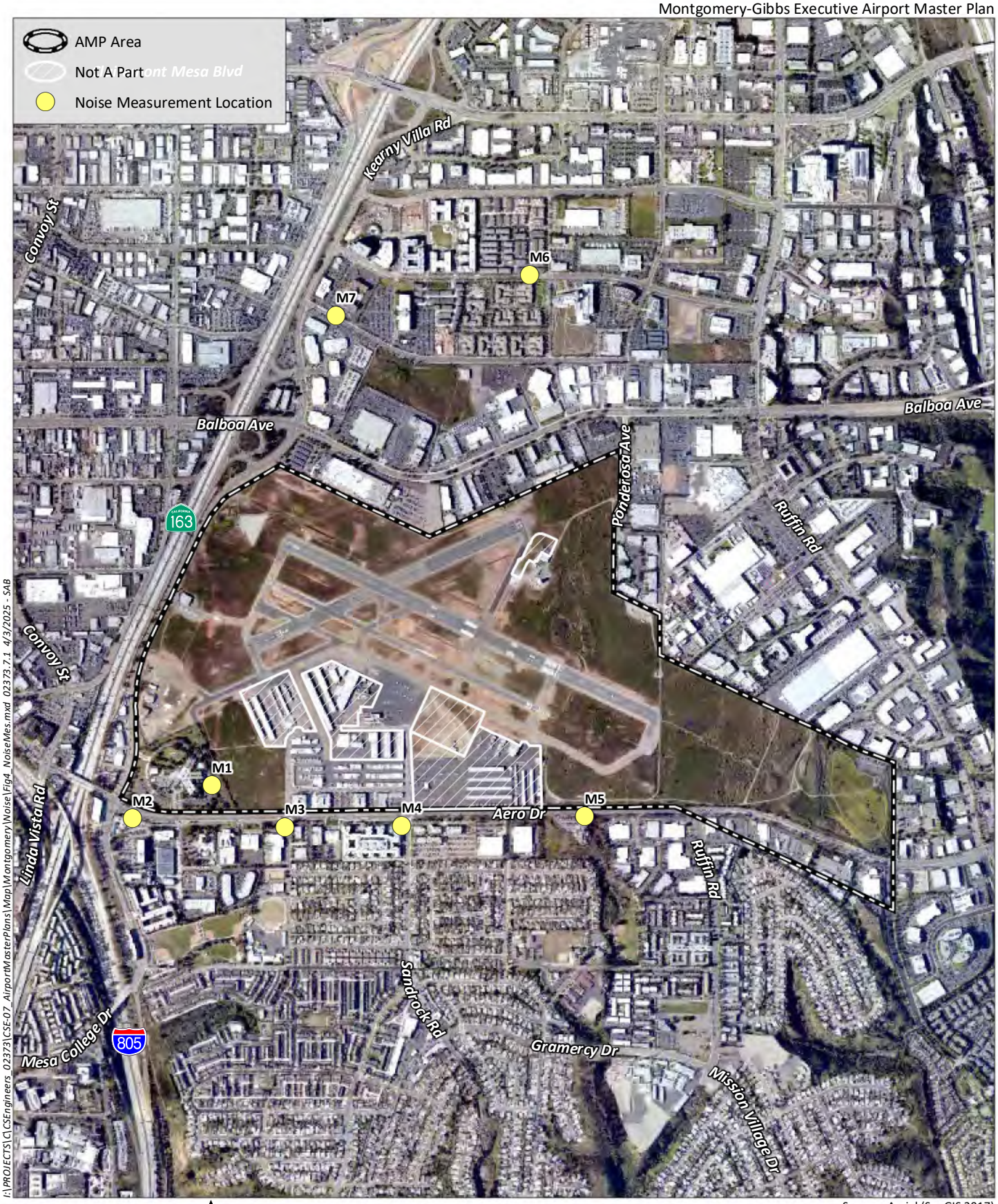
4.1 METHODOLOGY AND EQUIPMENT

4.1.1 Ambient Noise Survey

The following equipment was used to measure existing noise levels in the vicinity of the project:

- Larson Davis System LxT Integrating Sound Level Meters
- Larson Davis Model CAL150 Calibrator
- Windscreen and tripod for the sound level meter
- Digital camera

The sound level meter was field-calibrated immediately prior to the noise measurements to ensure accuracy. All sound level measurements conducted and presented in this report were made with a sound level meter that conforms to the American National Standards Institute (ANSI) specifications for sound level meters (ANSI SI.4-1983 R2006). All instruments were maintained with National Institute of Standards and Technology traceable calibration per the manufacturers' standards.



Source: Aerial (SanGIS 2017)

HELIX Environmental Planning

Baseline Noise Measurement Locations

Figure 4

4.1.2 Noise Modeling Software

Project construction noise was analyzed using the Roadway Construction Noise Model (RCNM; U.S. Department of Transportation [USDOT] 2008), which utilizes estimates of sound levels from standard construction equipment.

4.2 CONSTRUCTION ASSUMPTIONS

4.2.1 General Equipment Assumptions

Construction would require the use of equipment within the AMP area for the construction of each individual project. Each project type would require individual phases. Near-term improvements are expected to begin within a five-year period upon approval of the AMP, mid-term projects would be completed within 6 to 10 years, and long-term projects would be completed between 11 and 20 years upon approval of the AMP.

Nighttime construction work is expected to occur during multiple improvements. For the near-term projects, nighttime work would occur during the rehabilitation of Taxiways H, A, J, and B, and improvements for the Runway 28L runup areas. During the mid-term projects, nighttime work would be expected for airfield lighting and electrical upgrades. Long-term project nighttime work would be required for runway non-precision markings, the end relocation of Runway 5 and new connector taxiways, and during Runway 28R threshold relocation. Refer to Table 3, *Construction Equipment Assumptions*, for individual construction phases and a full list and number of construction equipment. The exact equipment types are not known at this point in project planning. For the purposes of this analysis, noise levels of typical equipment types are used.

Table 3
CONSTRUCTION EQUIPMENT ASSUMPTIONS

Phase	Equipment	Use per hour (percent)	Noise Level at 50 feet (one hour dBA L_{EQ})
Pavement Construction			
Grooving	Grooving machine	40	81
	Tank truck	40	72.5
	Sweeper/scrubber	40	81.0
Marking	Blasting truck	40	81.0
	Marking machine	10	66.1
Preventative Maintenance and Rehabilitation	Crack sealing truck	40	72.5
	Concrete saw	20	82.6
	Tractor/loader/backhoe	40	75.1
	Paving equipment	50	74.2
	Roller	20	78
Existing Surface Reconstruction	Pavement milling machine	10	66.1
	Paving machine	50	74.8
	Paving equipment	50	74.8
	Roller	20	78.0

Phase	Equipment	Use per hour (percent)	Noise Level at 50 feet (one hour dBA L_{EQ})
New Surface Construction	Rubber-tired dozer	40	77.7
	Grader	40	81.0
	Rubber-tired loader	40	75.1
	Paving machine	50	74.8
	Paving equipment	50	74.8
	Roller	20	78.0
Pavement Demolition	Concrete saw	20	82.6
	Rubber-tired dozer	40	77.7
	Excavator	40	76.7
	Rubber-tired loader	40	75.1
	Crushing machine	50	83.5
	Impact hammer/ breaker	40	83.0
Hangar/Building Construction			
Hangar/Building Construction	Rubber-tired dozer	40	77.7
	Tractor/loader/backhoe	40	75.1
	Crane	16	72.6
	Forklift/Aerial Lift	20	68.0
	Welder	40	69.0
	Generator	50	79.0

4.2.2 Pavement Demolition

On-site sawing, cutting, jackhammering, crushing, and breaking may be required during multiple phases for demolition of existing pavement and cement for the Airport runways and taxiways. For the purposes of noise modeling, breaking operations are conservatively assumed to be conducted using drilling techniques to fracture pavement.

A hydraulically operated impact hammer attached to a tracked excavator is commonly called a breaker. These units are used in site preparation to reduce pavement to a size where they can be transported off-site, buried on-site for fill, or used in a crusher. Demolition of pavement and foundation structures within the AMP area is expected to require the use of a breaker. Following breaking, the pavement may require the use of a crusher to break up large pieces of pavement on-site prior to removal. The material produced during crushing operations would then be either re-used on-site or moved off-site with conventional earthmoving equipment. Portable pavement crushing machinery may emit noise levels up to 86.5 dBA at 50 feet (Eilar 2003). The location of a potential crusher is unknown at this point in planning, but it is assumed to be located within a staging area on the Airport property. No other significant noise-generating sources are expected within on-site staging areas.

4.2.3 Vibration

No project phases are expected to involve explosive blasting. The most likely source of vibration closest to nearby receptors would be a vibratory roller, which may be used to achieve soil compaction as part of the foundation construction of hangars or prior to the paving of some surfaces, such as asphalt or tarmac.

4.2.4 Construction Traffic

Exact transportation routes for heavy truck trips related to construction activity are not known at this time. However, based on the conceptual staging area locations and access routes within the AMP area depicted on Figure 5, *Staging Areas and Access Routes*, trucks are anticipated to use major roadways adjacent to the Airport, including Aero Drive and Kearny Villa Road. Trucks would also be anticipated to use Balboa Avenue via Ponderosa Avenue at the northern edge of the AMP area.

4.3 GUIDELINES FOR THE DETERMINATION OF SIGNIFICANCE

The following thresholds are based on the City's CEQA Significance Determination Thresholds, General Plan, and Noise Ordinance, as applicable to the proposed AMP.

A potentially significant noise impact would occur if the implementation of the proposed AMP would:

1. Result in temporary construction noise that exceeds 75 dBA L_{EQ} (12 hours) at the property line of a residentially-zoned property from 7:00 a.m. to 7:00 p.m. (as identified in Section 59.0404 of the City's Municipal Code) or if non-emergency construction occurs during the 12-hour period from 7:00 p.m. to 7:00 a.m.; or

   Result in temporary nighttime construction noise that exceeds the applicable City one-hour sound level limits for the hours from 7:00 p.m. to 10:00 p.m. and 10:00 p.m. to 7:00 a.m. for nearby residential, commercial, and industrial uses.

   Result in construction traffic noise that causes a perceptible increase in existing traffic noise levels (a doubling in sound energy [a 3-dBA increase]) at NSLUs.

2. Subject vibration-sensitive land uses to construction-related ground-borne vibration that exceeds the threshold of 0.25 inch per second (in/sec) peak particle velocity (PPV) for potential architectural damage to historic structures for continuous/frequent intermittent construction sources (such as impact pile drivers, vibratory pile drivers, and vibratory compaction equipment), as specified by Caltrans (2020).

5.0 IMPACTS

5.1 CONSTRUCTION NOISE IMPACTS

Would the AMP result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Construction of individual projects within the AMP area would consist of multiple phases. Construction may involve the demolition of existing infrastructure, including pavement, grading, paving, and erecting new structures. The magnitude of the impact would depend on the type of construction activity, equipment, distance between the noise source and receiver, and any intervening structures. As noted under the construction assumptions, the loudest noise generation would be from the sawing, cutting, jackhammering, crushing, and breaking for demolition of existing pavement and cement for the Airport runways and taxiways. Construction would occur elsewhere within the AMP area, which would generate elevated noise levels. The closest NSLUs to the construction areas are located at the Four Points, by

Sheraton hotel at the southwestern corner of the AMP area, and residences to the south across Aero Drive.

Demolition activities would be required for multiple construction phases, and may include hard pavement breaking and crushing, which is typically substantially louder than other activities and has the greatest potential to create impacts to off-site NSLUs.

Nighttime demolition is assumed to be required for the purposes of this analysis. While the City Municipal Code limits construction activity to the daytime hours between 7:00 a.m. and 7:00 p.m. from Monday to Saturday, an exception in the form of a permit may be granted beforehand by the City's Noise Abatement and Control Administrator.

5.1.1 General Construction Noise

Each construction phase would require different equipment depending on the type of construction being performed. The full list of equipment, with assumed noise levels at a set distance of 50 feet, is found in Table 3. Assuming a noise attenuation rate of 6 dBA per doubling of distance, noise levels from the various equipment types would reduce to below the 75 dBA L_{EQ} (12 hours) threshold at different distances. Table 4, *General Construction Equipment Setback Distances*, provides the distances within which noise levels would exceed City thresholds.

If NSLUs are located within the setback distances listed in the table, impacts would be potentially significant. These distances do not assume the presence of intervening topography or structures, and therefore represent a conservative analysis based on the City noise ordinance thresholds. All distances assume the use of construction equipment for each hour of a given 12-hour workday. Noise levels would therefore be reduced if used less than 12 hours per day. Furthermore, construction equipment is mobile and may be moving across the AMP area throughout a given construction day.

Table 4
GENERAL CONSTRUCTION EQUIPMENT SETBACK DISTANCES

Phase	Equipment	Setback Distance (feet)
Grooving	Grooving machine	100
	Tank truck	38
	Sweeper/scrubber	100
Marking	Blasting truck	71
	Marking machine	18
Preventative Maintenance and Rehabilitation	Crack sealing truck	38
	Concrete saw	120
	Tractor/loader/backhoe	51
	Paving equipment	46
	Roller	71
Existing Surface Reconstruction	Pavement milling machine	18
	Paving machine	46
	Paving equipment	46
	Roller	71

Phase	Equipment	Setback Distance (feet)
New Surface Construction	Rubber-tired dozer	68
	Grader	100
	Rubber-tired loader	51
	Paving machine	46
	Paving equipment	46
	Roller	71
Pavement Demolition	Concrete saw	120
	Rubber-tired dozer	68
	Excavator	61
	Rubber-tired loader	51
	Crushing machine	133
	Impact Hammer/Breaker	126
Hangar/Building Construction	Rubber-tired dozer	68
	Tractor/loader/backhoe	51
	Crane	38
	Forklift/Aerial Lift	22
	Welder	25
	Generator	79

Source: Eilar 2003; RCNM defaults
Note: all distances assume use during each of hour a 12-hour workday

The exact equipment types, equipment locations, and therefore exact noise levels generated by future individual projects within the AMP area cannot be determined at this point in the planning process. Additionally, the locations of future NSLUs may change during future construction phases and cannot be determined to be outside the setback distances described in Table 4. Therefore, calculations of noise levels at specific receptor locations are not possible at this time, and impacts are determined to be potentially significant.

5.1.2 Nighttime Construction

The City's Noise Ordinance requires construction to occur between the hours of 7:00 a.m. and 7:00 p.m. Due to the Airport's ongoing operations during construction of individual projects, construction activities may be required outside these hours. Although a permit for nighttime work may be granted by the City's Noise Abatement and Control Administrator, this cannot be guaranteed for future individual projects within the AMP area.

If construction is required during nighttime hours, construction noise would be significant if it exceeds the City's one-hour sound level limits, as shown in Table 1 of this report. Table 5, *Nighttime Construction Setback Distances*, provides the distances within which noise levels would exceed the various City sound level limits for single-family residential, multi-family residential, all other residential, and commercial zones. Industrial zone sound level limits would be 75 dBA L_{EQ} (one hour), which would be equivalent to the setback distances shown in Table 4.

Table 5
NIGHTTIME CONSTRUCTION SETBACK DISTANCES

Equipment	Setback Distance (feet)				
	40 dBA L_{EQ} (one hour) Limit[1]	45 dBA L_{EQ} (one hour) Limit[2]	50 dBA L_{EQ} (one hour) Limit[3]	55 dBA L_{EQ} (one hour) Limit[4]	60 dBA L_{EQ} (one hour) Limit[5]
Grooving machine	3,976	2,236	1,257	707	398
Tank truck	2,113	1,189	668	376	211
Sweeper/scrubber	5,623	3,162	1,778	1,000	562
Blasting truck	3,976	2,236	1,257	707	398
Marking machine	1,009	568	319	179	101
Crack sealing truck	2,113	1,189	668	376	211
Concrete saw	6,753	3,797	2,135	1,201	675
Tractor/loader/backhoe	2,851	1,603	902	507	285
Paving equipment	2,561	1,440	810	455	256
Roller	3,976	2,236	1,257	707	398
Pavement milling machine	1,009	568	319	179	101
Rubber-tired dozer	3,846	2,163	1,216	684	385
Grader	5,623	3,162	1,778	1,000	562
Rubber-tired loader	2,851	1,603	902	507	285
Paving machine	2,561	1,440	810	455	256
Excavator	3,428	1,928	1,084	610	343
Crushing machine	7,472	4,202	2,363	1,329	747
Impact Hammer/Breaker	7,071	3,976	2,236	1,257	707
Crane	2,143	1,205	678	381	214
Welder	1,413	794	447	251	141
Generator	4,451	2,503	1,408	792	445
Forklift/Aerial Lift	1,257	707	398	224	126

[1] The 40 dBA L_{EQ} (one hour) limit applies to single-family residential zones during the hours of 10:00 p.m. to 7:00 a.m.
[2] The 45 dBA L_{EQ} (one hour) limit applies to single-family residential zones during the hours of 7:00 p.m. to 10:00 p.m. and the multi-family residential zones during the hours of 10:00 p.m. to 7:00 a.m.
[3] The 50 dBA L_{EQ} (one hour) limit applies to multi-family residential zones during the hours of 7:00 p.m. to 10:00 p.m. and all other residential zones during the hours of 10:00 p.m. to 7:00 a.m.
[4] The 55 dBA L_{EQ} (one hour) limit applies to all other residential zones during the hours of 7:00 p.m. to 10:00 p.m.
[5] The 60 dBA L_{EQ} (one hour) limit applies to commercial zones during the hours of 7:00 p.m. to 7:00 p.m.

The exact equipment types, equipment locations, and therefore, exact noise levels generated by future individual projects within the AMP area, cannot be determined at this point in the planning process. Additionally, the locations of future NSLUs may change during future construction phases and cannot be determined to be outside the setback distances described in Table 5. Therefore, calculations of noise levels at specific receptor locations are not possible at this time, and nighttime construction impacts are determined to be potentially significant.

5.1.3 Construction Traffic Noise

As described in Section 4.2.4, exact transportation routes for construction traffic are not known at this time. However, based on the conceptual staging area locations and access routes within the AMP area depicted on Figure 5, trucks are anticipated to use major roadways adjacent to the Airport, including Aero Drive, Balboa Avenue, and Kearny Villa Road. Due to the existing high volumes of traffic on Aero

I:\PROJECTS\C\CSEngineers_02373\CSE-07_AirportMasterPlans\Map\Montgomery\Noise\Fig5_Staging.mxd 02373.7.1 4/23/2025 - SAB

Source: Aerial (SanGIS, 2017)

HELIX Environmental Planning

Staging Areas and Access Routes

Figure 5

Drive, Kearny Villa Road, and Balboa Avenue, construction traffic is not expected that would cause a perceptible increase in noise levels over existing conditions.

Because of a planned haul route at the northern edge of the Airport, construction traffic may exit the AMP area at Ponderosa Avenue to access Balboa Avenue. The addition of heavy trucks to this roadway may cause noise levels to increase by 3 dBA when compared to existing conditions. However, because the properties along Ponderosa Avenue are zoned as Light Industrial (City of San Diego 2021), it is not expected that NSLUs would be located along this roadway during future individual projects requiring construction traffic on Ponderosa Avenue. As such, impacts are considered less than significant.

5.1.4 Mitigation Measures

The exact types and locations of construction equipment and the locations of off-site receptors that will be present during construction are not known at this time. As such, construction noise impacts would be potentially significant, as it cannot be determined whether equipment can feasibly be used within the setback distances of the noise-sensitive receptors described in Tables 4 and 5. Mitigation measures MM NOI-1 and MM NOI-2 outline standards and methods to reduce construction noise levels.

MM NOI-1 **Construction Noise Level Standards.** Construction noise from construction activities of future individual projects shall comply with the thresholds and hours specified by the City of San Diego. Daytime construction activities shall comply with the 75 dBA L_{EQ} (12 hours) standard when measured at or beyond the property lines of any property zoned residential. Construction activity shall not increase traffic on nearby roadways so that traffic noise increases 3 dBA over existing levels.

Nighttime construction is defined as construction occurring between the hours of 7:00 p.m. and 7:00 a.m. Nighttime construction shall require the granting of a permit prior to construction by the Noise Abatement and Control Administrator. If nighttime construction is required, it shall comply with the Sound Level Limits defined in the City Municipal Code, Chapter 5, Article 9.5, Division 4, §59.5.040. At single-family residential zones, noise generated by construction equipment shall not exceed 45 dBA L_{EQ} (one hour) between the hours of 7:00 p.m. and 10:00 p.m. or 40 dBA L_{EQ} (one hour) between the hours of 10:00 p.m. and 7:00 a.m. At multi-family residential zones, noise generated by construction equipment shall not exceed 50 dBA L_{EQ} (one hour) between the hours of 7:00 p.m. and 10:00 p.m. or 45 dBA L_{EQ} (one hour) between the hours of 10:00 p.m. and 7:00 a.m. At all other residential zones, noise generated by construction equipment shall not exceed 55 dBA L_{EQ} (one hour) between the hours of 7:00 p.m. and 10:00 p.m. or 50 dBA L_{EQ} (one hour) between the hours of 10:00 p.m. and 7:00 a.m. At commercial zones, noise generated by construction equipment shall not exceed 60 dBA L_{EQ} (one hour) between the hours of 7:00 p.m. and 7:00 a.m.

MM NOI-2 **Construction Noise Management Plan.** The construction specifications of all future individual projects within the AMP area shall require preparation of a Construction Management Plan prior to the onset of construction. The plan shall be specific to the conditions at the time of construction. The plan shall determine if construction equipment noise levels would be equivalent to those described in this report, and if so, whether noise-sensitive receptors are located within the setback distances described in this report. If construction noise for future individual projects is determined to exceed

the noise levels described in this report at nearby receptors, specific measures to reduce construction noise shall be implemented. These measures may include:

- Description of precise equipment to be used during construction.
- Noise level specifications for precise equipment to be used during construction.
- Location of noise-sensitive receptors prior to construction, with distances to potential noise-generating construction activity.
- Placement of noise-generating equipment as far as feasible from noise-sensitive receptors.
- Utilization of enclosures or other barriers for equipment to reduce noise levels.
- Construction equipment is properly outfitted and maintained with manufacturer-recommended noise-reduction devices.
- Diesel equipment operated with closed engine doors and equipped with factory-recommended mufflers.
- Written notification to noise-sensitive receptors within 100 feet of the project's property line. Notification to include a description of activities anticipated, expected dates and hours for construction, and contact information with details of a complaint and response procedure.

5.1.5 Significance after Mitigation

The exact construction equipment, intensity, and locations of future NSLUs in the vicinity of the Airport cannot be determined at this time; however, implementation of mitigation measures MM NOI-1 and MM NOI-2 would ensure that noise levels remain within City standards and impacts would be mitigated to a less than significant level.

5.2 CONSTRUCTION VIBRATION IMPACTS

Would implementation of the AMP expose persons to or generate excessive ground-borne vibration or noise levels?

During construction, the greatest potential source of vibration during project construction is anticipated to be a vibratory roller, primarily used to achieve soil, aggregate, and asphalt compaction. Vibratory rollers may be used in the construction of taxiways, runways, or tarmac. Existing hangars located on the site designated as historic (IS Architecture 2025), as well as other structures of historic age that may be designated as historic in the future, may be susceptible to construction vibration. A large vibratory roller is assumed to generate a vibration level of approximately 0.210 in/sec PPV at a distance of 25 feet (Caltrans 2020). If vibratory rollers are required within 22 feet of historic structures within the AMP

area, an exceedance of the 0.25 in/sec PPV vibration criteria for potential architectural damage to historical structures may occur[1] and would be a potentially significant impact.

No off-site historic structures or residences are located in the vicinity of the AMP area that would be exposed to excessive vibration. Although some vibration during construction may be perceptible to nearby off-site receptors, temporary impacts associated with the vibratory roller (and other potential equipment) would be less than significant.

5.2.1 Mitigation Measures

To reduce vibration at vibration-sensitive hangars within the AMP area, mitigation measure NOI-3 would be required.

MM NOI-3 **Construction Vibration Limits Near Historic Structures.** Vibration-generating construction equipment shall not generate vibration levels that exceed 0.25 in/sec PPV at historic structures. This shall be demonstrated by ensuring that construction plans associated with future projects, prior to approval, specify that large vibratory rollers are to be set back from historic structures by 22 feet or be used in static mode only (no vibrations) when operating within 22 feet of historic structures. If vibration-generating equipment other than large vibratory rollers is used during construction, project construction plans shall include specifications that demonstrate that vibration limits do not exceed 0.25 in/sec PPV at the historic structure.

5.2.2 Significance after Mitigation

Impacts related to construction vibration would be less than significant with implementation of mitigation measure MM NOI-3.

[1] Equipment PPV = Reference PPV * $(25/D)^n$ (in/sec), where Reference PPV is PPV at 25 feet, D is distance from equipment to the receiver in feet, and n = 1.1 (the value related to the attenuation rate through the ground); formula from Caltrans 2020.

6.0 LIST OF PREPARERS

Jason Runyan	Senior Noise Specialist
Hunter Stapp	Acoustic Analyst
Joanne M. Dramko, AICP	Project Manager, Principal Technical Specialist, Quality Assurance Reviewer

7.0 REFERENCES

California Department of Transportation (Caltrans). 2020. Transportation and Construction Vibration Guidance Manual. April.

Eilar and Associates. 2003, August. *Noise Measurements and Evaluation for Rock Crusher, Vistancia Project, San Marcos Tentative Map, TM 419.*

IS Architecture. 2025. Historical Resource Technical Report for the Montgomery-Gibbs Executive Airport. March.

San Diego, City of. 2019. Municipal Code, Chapter 5, Article 9.5, Division 4, §59.5.0401, Sound Level Limits.

2021. Official Zoning Map, Grid Tile: 23. January 12. Available at: https://www.sandiego.gov/sites/default/files/legacy/development-services/zoning/pdf/maps/grid23.pdf.

San Diego County Regional Airport Authority. 2010. Montgomery Field Airport Land Use Compatibility Plan. January 25. f

U.S. Department of Transportation (USDOT). 2008. Roadway Construction Noise Model.

This page intentionally left blank

Appendix A

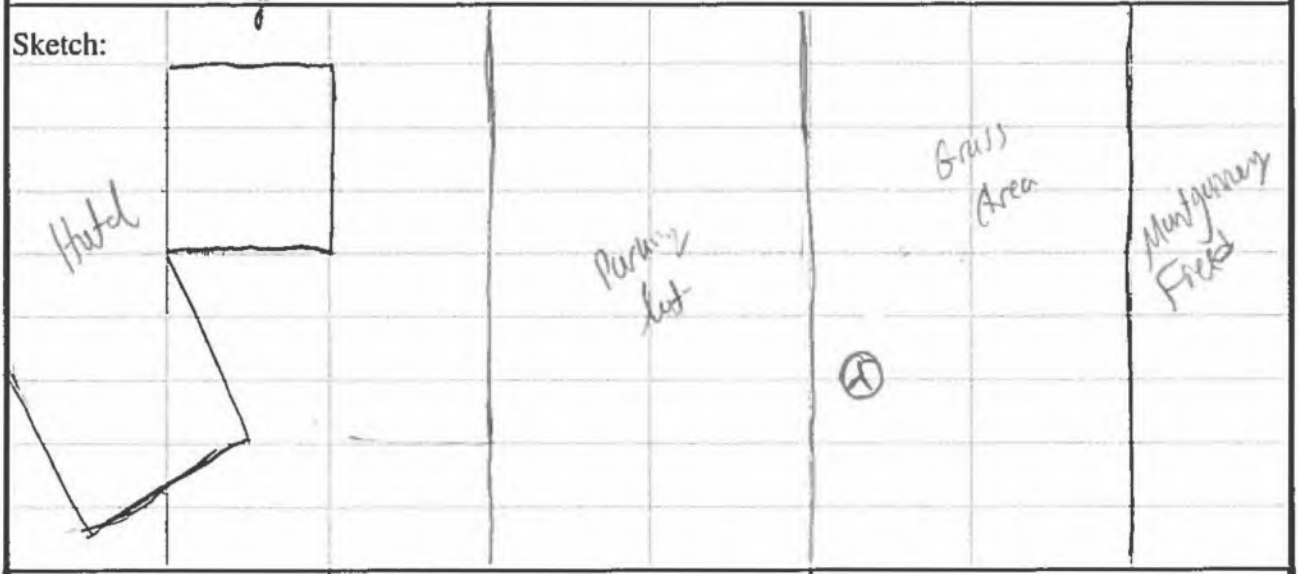
Site Survey Measurement Sheets

Site Survey

Job # CSE-07		Project Name: Brown / Mont Field Master Plan	
Date: 6/8/18	Site #: A1	Engineer: Hunter Stepp	
Address: Four Points Sheraton Hotel @ Aero Dr.			
80 Meter: LD LxT	Serial #: 1741	Calibrator: LD CAL250	Serial #: 4371

Notes: Dominant noise from traffic on I-805, Heavy Ulta Road, Aero Drive; sprinklers; occasional plane
Sunny

Sketch:



Temp: 71°F	Wind Spd: 4	mph	Humidity: 57	%	
Start of Measurement: 9:53 am	End of Measurement: 10:03 am		54.3	dBA L_{EQ}	

Cars (tally per 5 cars)	Medium Trucks (MT)	Heavy Trucks (HT)

Noise Measurement for Information Only

No Through Roadways

No Calibration Analysis Will Be Provided

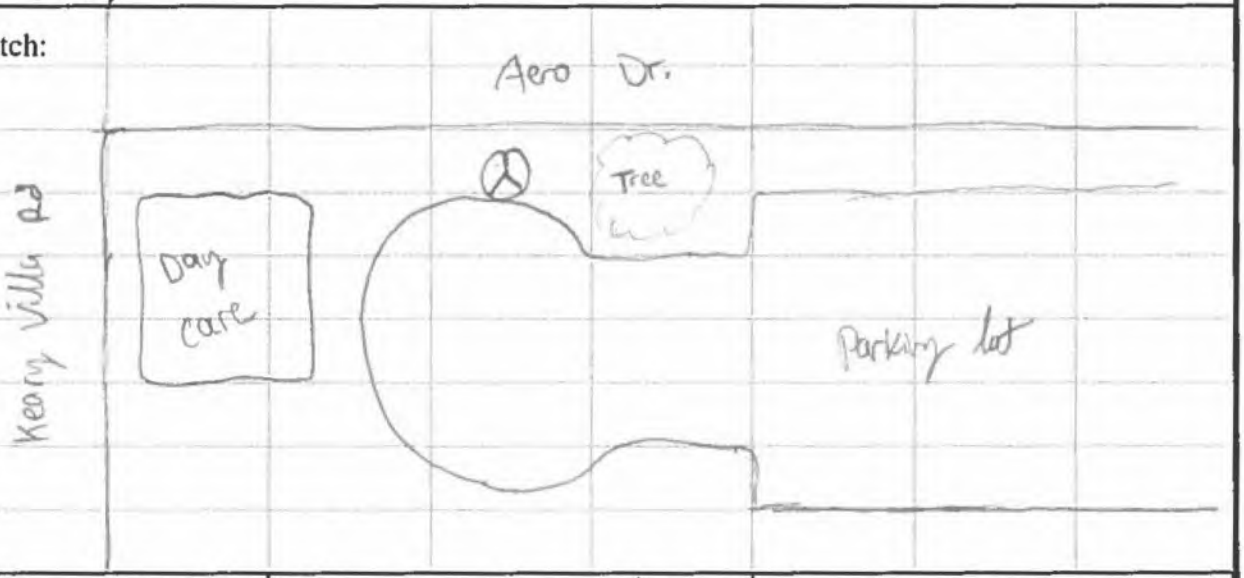
Site Survey

Job # CSE-07		Project Name: Brown / Hunt Field Waste Plans	
Date: 6/8/18	Site #: A2	Engineer: Hunter Stamp	
Address: Near Southeast corner of intersection of Kearny Villa Rd and Aero Dr.			
79 Meter: LD LxT	Serial #: 1741	Calibrator: LD CAL200	Serial #: 4371

Notes: Dominant noise traffic on I-805, Kearny Villa Road, and Aero Drive

Sunny

Sketch:



Temp:	69°F	Wind Spd:	4 mph	Humidity:	61 %
Start of Measurement:	9:37 am	End of Measurement:	9:47 am.	57.3	dBA L_{EQ}

Cars (tally per 5 cars)	Medium Trucks (MT)	Heavy Trucks (HT)

Noise Measurement for Information Only

No Through Roadways

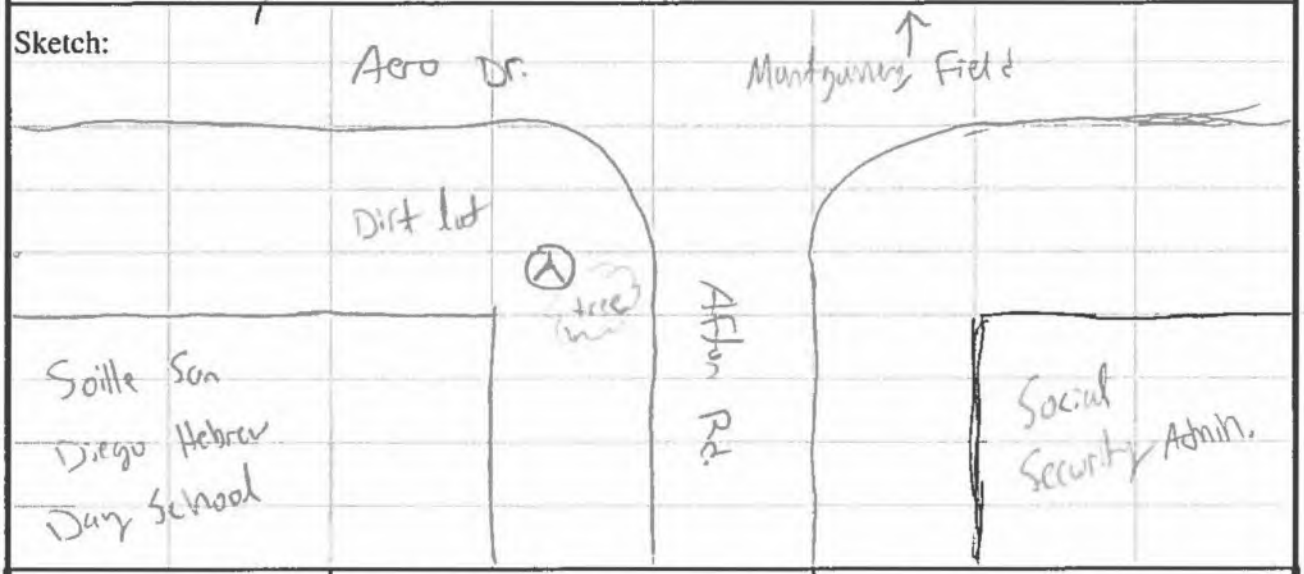
No Calibration Analysis Will Be Provided

Site Survey

Job # 15E-07	Project Name: Brown / Mont. Field Master Plan		
Date: 6/8/18	Site #: A3	Engineer: Hunter Stapp	
Address: Southwestern corner of intersection of Aero Dr. and Affton Rd.			
81 Meter: LD LxT	Serial #: 1741	Calibrator: LD CAL250	Serial #: 4371

Notes: Dominant noise source traffic along Aero Drive; occasional plane; distant children playing.
Sunny

Sketch:



Temp: 71°F	Wind Spd: 0 mph	Humidity: 56 %
Start of Measurement: 10:14 am	End of Measurement: 10:24 am	61.2 dBA L_{EQ}

Cars (tally per 5 cars)	Medium Trucks (MT)	Heavy Trucks (HT)

Noise Measurement for Information Only

No Through Roadways

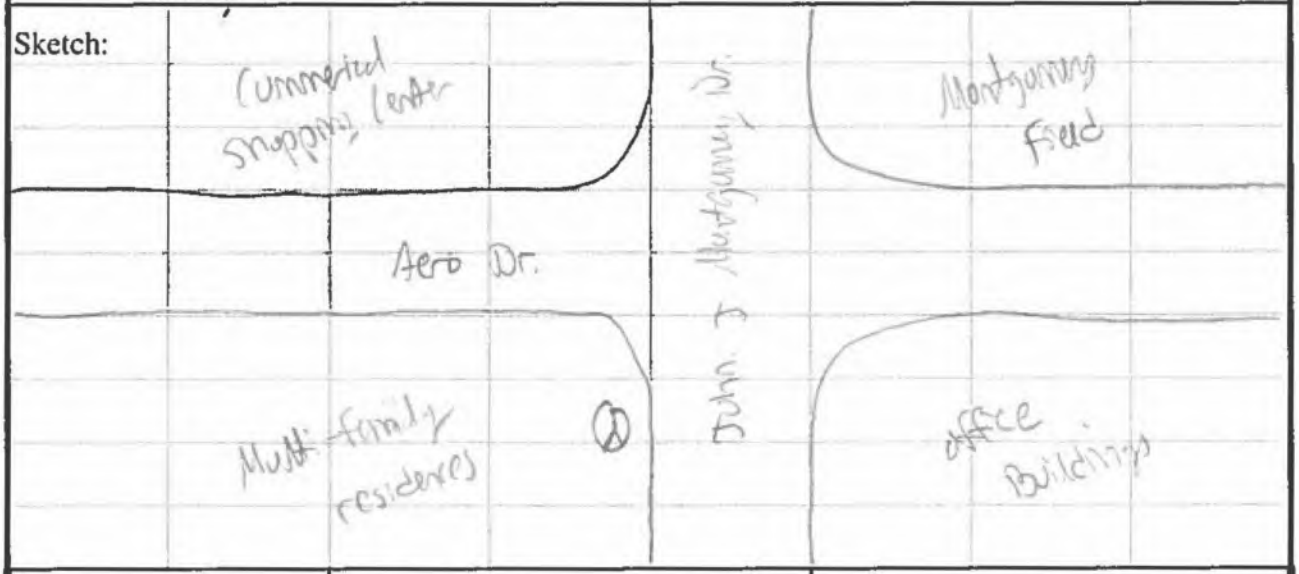
No Calibration Analysis Will Be Provided

Site Survey

Job # 18E-07	Project Name: Brown/Mont Field Master II		
Date: 6/8/18	Site #: A4	Engineer: Hunter Stamp	
Address: Southwestern corner of intersection of Aero Dr. and John J. Mont. Dr.			
82 Meter: LD LxT	Serial #: 1741	Calibrator: LD CAL200	Serial #: 4371

Notes: Dominant noise source traffic calm, roadways; distant light construction work; planes @ airport
Sunny.

Sketch:



Temp: 71°F	Wind Spd: 2 mph	Humidity: 55 %
Start of Measurement: 10:31 am	End of Measurement: 10:41 am	66.9 dBA L_{EQ}

Cars (tally per 5 cars)	Medium Trucks (MT)	Heavy Trucks (HT)

Noise Measurement for Information Only

No Through Roadways

No Calibration Analysis Will Be Provided