PDS2023-MUP-23-013 Chabad of RSF Project Description Tech Report Cover Letter

- *Acreage: Some of the project's tech report's used the site's gross acreage, while others make reference to the net acreage. The site is 2.43 gross acres and 2.39 net acres.*
- *Existing Buildings: the square footages of the existing-to-remain buildings have been rounded in some of the tech reports (single family residential 1,701 to 1,700; office 582 to 600; candle shop/commercial space 3,395 to 4,000). the existing-to-remain 582 square feet structure is an office and is not an ADU*
- *New Building: the total sf of the proposed new building is 13,845; however, the ground floor (lot coverage) of the proposed new building is 11,550 sf.*
- *Parking Spaces: in a previous round the project had 62 parking spaces but lost 2 spaces due to tree wells. The project proposes 60 parking spaces where 47 are required.*

We have clarified all of these minor inconsistencies through the unifying Project Description below.

The project proposes a Major Use Permit for Chabad of Rancho Santa Fe (as defined by Zoning Ordinance Section 1348 – Civic, Fraternal or Religious Assembly and 1332 – Child Care Center) on 2 lots, totaling approximately 2.43 gross acres (2.39 net acres). The project proposes to redevelop the property to include the construction of one (1) new building, three (3) existing-to-remain buildings, the retention of existing covered areas and construction of new covered areas, all totaling approximately 19,898.66 square foot (sf) of lot coverage or 19.11%. The proposed new building is a Chabad religious assembly center and communal space proposed to be approximately 13,845 gross sf with 11,550 sf of ground floor lot coverage. Uses associated within the proposed new building's Religious Assembly will include administration offices, mikvah, religious education classes, kitchen, childcare, and meeting spaces. Outdoor spaces will include landscaped garden areas, courtyard, playground, and perimeter screening/fence. The project offers 60 parking spaces where 47 are required by the proposed uses. The project will consist of a single phase of construction which will consist of the Shul, parking, drive aisles, signage, right-of-way improvements, and landscaping.

Existing as-built structures include a candle shop/commercial space (approximately 3,395 gross sf), a single-family residence (approximately 1,701 gross sf), an office (approximately 582 gross sf), a stone shop, and various out-structures. Of these structures, the project proposes to retain the candle shop/commercial space, single-family residence, and office. The stone shop and various out-structures will be demolished/removed.

The Child Care Center use is requested for all buildings on site, with specific development details to be determined during the building permit phase. The residence and accessory structures are occasionally inhabited by the Rabbi, his family and guests of the organization. These structures are excluded from the in the Religious Assembly. The candle shop/commercial space will remain as a commercial use for the sale of religious and Chabad-related items. Childcare services are proposed for up to 50 children, aged six months to six years old, operating Monday through Friday,

from 6:00 AM to 6:00 PM. If the childcare program grows to serve 50 children, staffing requirements are estimated to include approximately 12 employees, depending on the ages of the children in compliance with state-mandated staffing ratios for early learning and care programs.

The Religious Assembly use would include typical Shabat weekly services held Friday evenings and Saturday mornings, as well as other holiday services, events, weddings and gatherings, such as but not limited to Rosh Hashanah, Passover, and Yom Kippur. Services may be attended by approximately 100 adults plus children. The project is designed to accommodate the growth of the population from approximately 20 to 30 adults (plus children) to approximately 100 adults (plus children) for an average service. Evening classes and gatherings will operate from Monday through Thursday with varying class times in the day. Administrative offices will operate from 8:00 AM to 5:00 PM. The Religious Assembly currently employs three (3) staff and would be anticipated to grow in accordance with the growth of the Chabad.

The project will include public road improvements along Via De La Valle. Fire would be served by the Rancho Santa Fe Fire Protection District. School Service is provided by Solana Beach (General Elementary) and San Dieguito Union (High School). Water service is provided by Santa Fe Irrigation. The project is currently not connected to a sewer district and will rely on septic. The project will require approximately 2,688 cubic yards of cut and 3,225 cubic yards of fill. A total of 537 cubic yards of imported material will be required. The project is subject to General Plan Regional Category Semi-Rural, the General Plan Land Use of SR-2 and Zoning Single Family (RS). The project is not subject to Special Area Regulations. The project is located at 14906 Via De La Valle, directly north of Villa De La Valle, approximately 1.9 miles east of Interstate 15, in the San Dieguito Community Planning Area, within unincorporated San Diego County (APNs 302-110-29 and 30).

Noise Analysis Report

Chabad Jewish Center of Rancho Santa Fe

October 16, 2024 DRAFT

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Executive Summary **1**

1.0 Introduction **2**

1.1 Project Description 2
1.2 Environmental Noise Background 5
1.3 Applicable Noise Regulations and Standards 7
1.4 Environmental Settings and Existing Conditions 11
1.5 Methodology and Equipment 12

2.0 Project-Generated Airborne Noise **14**

2.1 Guidelines for the Determination of Significance 14
2.2 Potential Operational Noise Impacts (Non-Construction Noise) 16
2.3 Potential Construction Noise Impacts 16

3.0 Noise Sensitive Land Uses Affected by Airborne Noise **18**

3.1 Guidelines for the Determination of Significance 18
3.2 Potential Noise Impacts 19

4.0 Summary of Project Impacts, Mitigation, and Conclusions **21**

4.1 Project Features 21
4.2 Noise Sensitive Land Uses 21
4.3 Project-Generated Airborne Noise 21

5.0 References **22**

6.0 List of Preparers **23**

Tables

Table 1. Sound Levels of Typical Noise Sources and Noise Environments 6
Table 2. Sound Level Measurements (dBA) 12
Table 3. Grading Noise Source Levels 17

Figures

Figure 1. Vicinity Map 4
Figure 2. Sound Level Measurement Location 13
Figure 3. Future Exterior Noise Levels (CNEL) 20

Appendices

Appendix A. Model Output – Noise Contours

EXECUTIVE SUMMARY

The proposed Chabad Jewish Center of Rancho Santa Fe project would be a multi-use facility at 14906 Via de la Valle, near the Rancho Santa Fe community of unincorporated San Diego County.

Project operation noise levels at the project property lines would not exceed 45 dBA Leq. Project operation would be in compliance with the County and City of San Diego noise ordinances. Project operation noise impacts would be less than significant.

Project construction noise levels at project property lines would not exceed 75 dBA Leq (8 / 12 hours). Construction would occur during the hours proscribed by the County and City of San Diego noise ordinances. Project construction noise impacts would be less than significant.

Future exterior roadway noise levels at the proposed Shul building would range from below 60 dBA CNEL at the north façade to approximately 70 dBA CNEL at the south façade, as shown on Figure 3. Exterior noise levels would be considered “Acceptable” at all areas. The project noise exposure would be less than significant.

No significant impacts were identified. The methodology and findings of this analysis are discussed in the following pages.

1.0 INTRODUCTION

This report assesses potential noise impacts associated with the proposed Chabad Jewish Center of Rancho Santa Fe project.

1.1 Project Description

The project proposes a Major Use Permit for a Chabad Center (as defined by Zoning Ordinance Section 1348 – Civic, Fraternal or Religious Assembly) on two lots, totaling approximately 2.43-acres. The project proposes constructing a Shul (approximately 11,150-square-feet), maintaining the existing single-family home, the Accessory Dwelling Unit (ADU), and the candle shop buildings, adding surface parking, signage, and landscaping. The project will consist of a single phase of construction which will consist of the Shul, parking and drive aisles, signage, and landscaping.

The existing property has structures which comprise approximately 10,000 square-feet of building area which includes a candle factory and shop, stone shop, ADU, a single-family home, and various out-structures. The proposed Shul which is approximately 11,150 square-foot of coverage in an area currently free of structures. As mentioned above, single-family home (approximately 1,700 square-feet), ADU (approximately 600 square-feet), and candle shop (approximately 3,400 square-feet) structures will remain on-site. The stone shop and various out-structures will be removed from the property.

The design of the project focuses activities internally to the property in a modified courtyard layout thus reducing light and noise affecting the neighboring properties. The design reflects Chabad of Rancho Santa Fe's desire to preserve the existing landscaping and to supplement it with additional plant material to screen the project. The site plan and design are intended to embrace the natural beauty of the property. The MUP will include religious activities, administrative functions, small gathering areas, evening classes, childcare, and quite spaces for the community. The existing candle shop, ADU, and single-family home are incorporated into the site plan. The project will comply with the County's Dark Skies requirements and will include low-scale signs at both driveways.

The Chabad of Rancho Santa Fe is a small congregation that has served the community for approximately 19-years. If approved, the long-term goal is to allow the local-serving congregation to grow to approximately 80 people for Saturday services. The facility would include weekly services (Friday evenings and Saturday), holiday services (may include 100 people), a childcare center for up to 50 children (7am to 3pm), and daily classes and gatherings, in the evenings (3pm to 7pm), for members of the community. The administrative office will operate 9:00 AM to 5:00 PM, Monday through Friday (excepting holidays). The project will increase on-site parking to 62 parking spaces.

- Service availability letters have not been provided at this time and will be required at the time the project is submitted.
- Fire would be served by the Rancho Santa Fe Fire Protection District.
- School Service is provided by Solana Beach School District (elementary school) and San Dieguito Union High School (middle and high school).
- The project may include public road improvements along Via De La Valle.

- Water service is provided by Santa Fe Irrigation.
- The project is not connected to a sewer district and will rely upon a septic system.
- Grading is estimated to be less than eight-feet (8') vertical feet of grading will be necessary on the site, subject to further development of the design. Excavation and fill are not anticipated to exceed 200 cubic yards.
- The project is subject to General Plan Regional Category Semi-Rural, the General Plan Land Use of SR-2 and Zoning Single Family (RS). The project is not subject to Special Area Regulations. The project is located directly north of Villa De La Valle, approximately 1.9-miles east of Interstate 15, in the San Dieguito Community Planning Area, within unincorporated San Diego County (APNs 302-110-29 and 30).

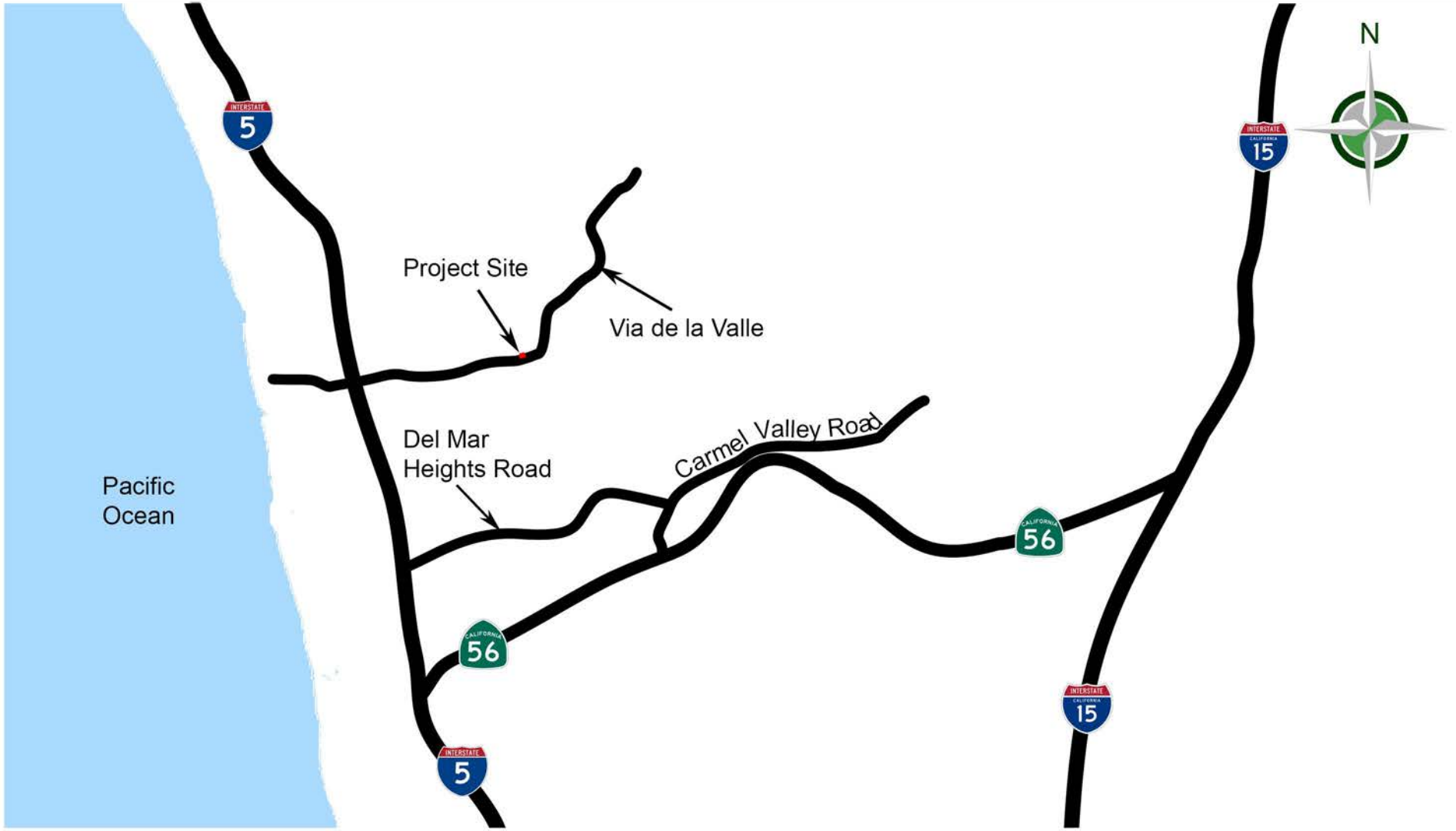

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FIGURE 1
Vicinity Map

1.2 Environmental Noise Background

Noise is generally defined as loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity and that interferes with or disrupts normal activities. The human environment is characterized by a certain consistent noise level which varies by location and is termed ambient noise. Although exposure to high noise levels has been demonstrated to cause hearing loss, the principal human response to environmental noise is annoyance. The response of individuals to similar noise events is diverse and influenced by the type of noise, perceived importance of the noise and its appropriateness in the setting, time of day and type of activity during which the noise occurs, and sensitivity of the individual.

Sound is a physical phenomenon consisting of minute vibrations that travel through a medium, such as air, and are sensed by the human ear. Sound is generally characterized by several variables, including frequency and intensity. Frequency describes the sound's pitch and is measured in cycles per second, or hertz (Hz), whereas intensity describes the sound's loudness and is measured in decibels (dB). Decibels are measured using a logarithmic scale. A sound level of 0 dB is approximately the threshold of human hearing. Normal speech has a sound level of approximately 60 dB. Sound levels above about 120 dB begin to be felt inside the human ear as discomfort and eventually as pain at still higher levels. The minimum change in the sound level of individual events that an average human ear can detect is about 3 dB. The average person perceives a change in sound level of about 10 dB as a doubling (or halving) of the sound's loudness; this relation holds true for sounds of any loudness. Sound levels of typical noise sources and environments are provided in Table 1.

Because of the logarithmic nature of the decibel unit, sound levels cannot be added or subtracted directly and are somewhat cumbersome to handle mathematically. A simple rule is useful, however, in dealing with sound levels. If a sound source generating a sound level is added to another sound source generating the same sound level, the resultant sound level increases by 3 dB, regardless of the initial sound level. Thus, for example, 60 dB + 60 dB = 63 dB, and 80 dB + 80 dB = 83 dB.

The normal human ear can detect sounds that range in frequency from about 20 Hz to 20,000 Hz. However, all sounds in this wide range of frequencies are not heard equally well by the human ear, which is most sensitive to frequencies in the range of 1,000 Hz to 4,000 Hz. This frequency dependence can be taken into account by applying a correction to each frequency range to approximate the human ear's sensitivity within each range. This is called A-weighting and is commonly used in measurements of community environmental noise. The A-weighted sound pressure level (abbreviated as dBA) is the sound level with the "A-weighting" frequency correction. In practice, the level of a noise source is conveniently measured using a sound level meter that includes a filter corresponding to the dBA curve.

Table 1. Sound Levels of Typical Noise Sources and Noise Environments

Noise Source (at Given Distance)	Noise Environment	A-Weighted Sound Level	Human Judgment of Noise Loudness (Relative to Reference Loudness of 70 Decibels*)
Military Jet Takeoff with Afterburner (50 ft)	Carrier Flight Deck	140 Decibels	128 times as loud
Civil Defense Siren (100 ft)		130	64 times as loud
Commercial Jet Take-off (200 ft)		120	32 times as loud **Threshold of Pain**
Pile Driver (50 ft)	Rock Music Concert Inside Subway Station (New York)	110	16 times as loud
Ambulance Siren (100 ft) Newspaper Press (5 ft) Gas Lawn Mower (3 ft)		100	8 times as loud **Very Loud**
Food Blender (3 ft) Propeller Plane Flyover (1,000 ft) Diesel Truck (150 ft)	Boiler Room Printing Press Plant	90	4 times as loud
Garbage Disposal (3 ft)	Noisy Urban Daytime	80	2 times as loud
Passenger Car, 65 mph (25 ft) Living Room Stereo (15 ft) Vacuum Cleaner (10 ft)	Commercial Areas	70	Reference Loudness **Moderately Loud**
Normal Speech (5 ft) Air Conditioning Unit (100 ft)	Data Processing Center Department Store	60	1/2 as loud
Light Traffic (100 ft)	Large Business Office Quiet Urban Daytime	50	1/4 as loud
Bird Calls (distant)	Quiet Urban Nighttime	40	1/8 as loud **Quiet**
Soft Whisper (5 ft)	Library and Bedroom at Night Quiet Rural Nighttime	30	1/16 as loud
	Broadcast and Recording Studio	20	1/32 as loud **Just Audible**
		0	1/64 as loud **Threshold of Hearing**

Source: Compiled by Kimley-Horn and Associates, Inc.

Because community noise fluctuates over time, a single measure called the Equivalent Sound Level (Leq) is often used to describe the time-varying character of community noise. The Leq is the energy-averaged A-weighted sound level during a measured time interval. It is equal to the level of continuous steady sound containing the same total acoustical energy over the averaging time period as the actual time-varying sound. Additionally, it is often desirable to know the acoustic range of the noise source being measured. This is accomplished through the Lmax and Lmin indicators, which represent the root-mean-square maximum and minimum noise levels obtained during the measurement interval. The Lmin value obtained for a particular monitoring location is often called the "acoustic floor" for that location.

1.3 Applicable Noise Regulations and Standards

1.3.1 County of San Diego General Plan

The County of San Diego establishes Noise Compatibility Guidelines in the Noise Element of its General Plan [County of San Diego 2011].

At school and church land uses, noise levels up to 65 dBA CNEL are considered Acceptable at outdoor use areas; noise levels up to 75 dBA CNEL are considered Conditionally Acceptable. The interior noise level standard is 50 dBA Leq.

1.3.2 County of San Diego Noise Ordinance

Section 36.404: General Sound Level Limits states:

> (a) Except as provided in section 36.409 of this chapter, it shall be unlawful for any person to cause or allow the creation of any noise, which exceeds the one-hour average sound level limits in Table 36.404, when the one-hour average sound level is measured at the property line of the property on which the noise is produced or at any location on a property that is receiving the noise.

San Diego County Code Section 36.404, Sound Level Limits in Decibels (dBA)

ZONE	TIME	ONE-HOUR AVERAGE SOUND LEVEL LIMITS (dBA)
(1) R-S, R-D, R-R, R-MH, A-70, A-72, S-80, S-81, S-87, S-90, S-92 and R-V and R-U with a density of less than 11 dwelling units per acre.	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	50 45
(2) R-RO, R-C, R-M, S-86, V-5 and R-V and R-U with a density of 11 or more dwelling units per acre.	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	55 50
(3) S-94, V-4 and all other commercial zones.	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	60 55
(4) V1, V2 V1, V2 V1 V2	7 a.m. to 7 p.m. 7 p.m. to 10 p.m. 10 p.m. to 7 a.m. 10 p.m. to 7 a.m.	60 55 55 50
V3	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	70 65
(5) M-50, M-52 and M-54	Anytime	70
(6) S-82, M-56 and M-58	Anytime	75
(7) S-88 (see subsection (c) below)		

(b) Where a noise study has been conducted and the noise mitigation measures recommended by that study have been made conditions of approval of a Major Use Permit, which authorizes the noise-generating use or activity and the decision making body approving the Major Use Permit determined that those noise mitigation measures reduce potential impacts to a level below significance, implementation and compliance with those noise mitigation measures shall constitute compliance with subsection (a) above.

(c) S88 zones are Specific Planning Areas which allow different uses. The sound level limits in Table 36.404 above that apply in an S88 zone depend on the use being made of the property. The limits in Table 36.404, subsection (1) apply to property with a residential, agricultural or civic use. The limits in subsection (3) apply to property with a commercial use. The limits in subsection (5) apply to property with an industrial use that would only be allowed in an M50, M52, or M54 zone. The limits in subsection (6) apply to all property with an extractive use or a use that would only be allowed in an M56 or M58 zone.

(d) If the measured ambient noise level exceeds the applicable limit in Table 36.404, the allowable one-hour average sound level shall be the one-hour average ambient noise level, plus three decibels. The ambient noise level shall be measured when the alleged noise violation source is not operating.

(e) The sound level limit at a location on a boundary between two zones is the arithmetic mean of the respective limits for the two zones. The one-hour average sound level limit applicable to extractive industries, however, including but not limited to borrow pits and mines, shall be 75 decibels at the property line regardless of the zone in which the extractive industry is located.

(f) A fixed-location public utility distribution or transmission facility located on or adjacent to a property line shall be subject to the sound level limits of this section, measured at or beyond six feet from the boundary of the easement upon which the facility is located.

Section 36.409: Sound Level Limitations on Construction Equipment states:

> Except for emergency work, it shall be unlawful for any person to operate construction equipment or cause construction equipment to be operated, that exceeds an average sound level of 75 decibels for an eight-hour period, between 7 a.m. and 7 p.m., when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is being received.

1.3.3 City of San Diego Municipal Code

Operational noise within the City is governed by Municipal Code Section 59.5.401: Sound Level Limits.

> 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 the following table, 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 OF APPLICABLE LIMITS

Land Use	Time of Day	One-Hour Average Sound Level (decibels)
1. Single Family Residential	7 a.m. to 7 p.m. 7 p.m. to 10 p.m. 10 p.m. to 7 a.m.	50 45 40
2. Multi-Family Residential (up to a maximum density of 1/2000)	7 a.m. to 7 p.m. 7 p.m. to 10 p.m. 10 p.m. to 7 a.m.	55 50 45
3. All Other Residential	7 a.m. to 7 p.m. 7 p.m. to 10 p.m. 10 p.m. to 7 a.m.	60 55 50
4. Commercial	7 a.m. to 7 p.m. 7 p.m. to 10 p.m. 10 p.m. to 7 a.m.	65 60 60
5. Industrial or Agricultural	any time	75

The land use to the south of the project is a multifamily residential development in the City of San Diego, with the following operational sound level limits:

- 55 dBA Leq during daytime hours (7:00 a.m. to 7:00 p.m.),
- 50 dBA Leq during evening hours (7:00 p.m. to 10:00 p.m.), and
- 45 dBA Leq during nighttime hours (10:00 p.m. to 7:00 a.m.).

Construction noise within the City is governed by Municipal Code Section 59.5.0404: Construction Noise.

> 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.

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 decibels during the 12-hour period from 7:00 a.m. to 7:00 p.m.

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.

(Amended 1-3-1984 by O-16100 N.S.)

1.4 Environmental Settings and Existing Conditions

1.4.1 Settings and Location

The project site is located at 14906 Via de la Valle, near the Rancho Santa Fe community of unincorporated San Diego County. Zoning for the site and all adjacent properties in the County is RS and is single-family residential use. Via de la Valle is adjacent on the south. The property beyond Via de la Valle to the south is multi-family residential use in the City of San Diego.

1.4.2 Existing Noise Conditions

Some land uses are considered sensitive to noise. Noise sensitive receptors are land uses associated with indoor and/or outdoor activities that may be subject to stress and/or significant interference from noise. They often include residential dwellings, mobile homes, hotels, motels, hospitals, nursing homes, educational facilities and libraries. Industrial, commercial, agricultural and urban reserve land uses are generally not considered sensitive to ambient noise.

Noise-sensitive land uses (NSLUs) near the site include the single-family residences to the north, east, west, and the multi-family residences to the south. The primary noise source in the project vicinity is vehicular traffic on Via de la Valle. There are no additional NSLUs that are reasonably foreseeable in the project area.

1.5 Methodology and Equipment

1.5.1 Sound Level Measuring Methodology and Procedures

A sound level measurement survey of the existing environment was conducted in the project area. Measurement Location 1 (ML1) was near the south project property line, approximately 45 feet north of the Via de la Valle centerline.

A RION Model NL-31 American National Standards Institute (ANSI) Type 2 Integrating Sound Level Meter was used as the data-collection device. The meter was mounted to a tripod and placed roughly 5 feet above local ground to simulate the average height of the human ear. The meter was calibrated before and after the measurement periods.

The measurement results are summarized in Table 2 and correspond to the locations depicted on Figure 2. The primary noise source contributing to the acoustical environment was vehicular traffic on Via de la Valle. Secondary sources included distant landscaping and occasional distant aircraft activity.

Table 2. Sound Level Measurements (dBA)

Measurement Location		Date / Time	Leq	Lmin	Lmax	L10	L50	L90	Traffic
ML1	Near south project property line	2023-06-13 13:00 – 13:15	70.2	43.9	83.5	74.0	67.4	51.7	WB: 114 / 4 / 5 EB: 85 / 1 / 0

Note: Traffic reported in cars / medium trucks / heavy trucks.

1.5.2 Noise Modeling Software

The Cadna/A Noise Prediction Model was used to estimate project-generated hourly noise levels at project property lines. Cadna/A is a Windows-based software program that predicts and assesses noise levels near noise sources. The model uses industry-accepted propagation algorithms and accepts sound power levels (in decibels re: 1 picoWatt) based on ISO 9613-2 standards. ISO 9613-2 is an internationally recognized standard that establishes a method for calculating the attenuation of sound during propagation outdoors, in order to predict the levels of environmental noise at a distance from a variety of sources. The method predicts the equivalent continuous A-weighted sound pressure level.

The project site configuration, including ground elevations and equipment heights, was imported into Cadna/A from the project CAD files. Because of the uncertainty associated with any computer model, the site operating parameters were designed to evaluate a worst-case condition. The receptors were placed five feet above ground level.

The Federal Highway Administration (FHWA) Traffic Noise Model (TNM) version 2.5 was used to calculate roadway traffic noise levels. The modeling effort included the roadway alignment, estimated average vehicle speeds, peak-hour traffic volume, estimated vehicle mix, project grading, and locations of existing buildings and the project buildings. Agencies such as the U.S. Department of Housing and Urban Development (HUD) consider the peak-hour Leq to be reasonably equivalent to the CNEL for vehicular traffic.

dBF Associates, Inc.

FIGURE 2
Sound Level Measurement Location

2.0 PROJECT-GENERATED AIRBORNE NOISE

2.1 Guidelines for the Determination of Significance

It shall be unlawful for any person to cause or allow the creation of any noise to the extent that the one-hour average sound level, at any point on or beyond the boundaries of the property, exceeds the applicable limits on Table 36.404.

The project will generate airborne noise which, together with noise from all sources, will be in excess of either of the following:

A. Non-Construction Noise: The limit specified in San Diego County Code Section 36.404, General Sound Level Limits, at the property line of the property on which the noise is produced or at any location on a property that is receiving the noise. Section 36.404 provides the following limits:

San Diego County Code Section 36.404, Sound Level Limits in Decibels (dBA)

ZONE	TIME	ONE-HOUR AVERAGE SOUND LEVEL LIMITS (dBA)
(1) R-S, R-D, R-R, R-MH, A-70, A-72, S-80, S-81, S-87, S-90, S-92 and R-V and R-U with a density of less than 11 dwelling units per acre.	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	50 45
(2) R-RO, R-C, R-M, S-86, V5 and R-V and R-U with a density of 11 or more dwelling units per acre.	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	55 50
(3) S-94, V-4 and all other commercial zones.	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	60 55
(4) V1, V2 V1, V2 V1 V2	7 a.m. to 7 p.m. 7 p.m. to 10 p.m. 10 p.m. to 7 a.m. 10 p.m. to 7 a.m.	60 55 55 50
V3	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	70 65
(5) M-50, M-52 and M-54.	Anytime	70
(6) S-82, M-56 and M-58.	Anytime	75
(7) S-88 (see subsection (c) below)		

(a) If the measured ambient noise level exceeds the applicable limit stated above, the allowable one hour average sound level shall be the one-hour average ambient noise level, plus three decibels. The ambient noise level shall be measured when the alleged noise violation source is not operating.

(b) The sound level limit at a location on a boundary between two zones is the arithmetic mean of the respective limits for the two zones; provided however, that the one-hour average sound level limit applicable to extractive industries, including but not limited to borrow pits and mines, shall be 75 decibels at the property line regardless of the zone in which the extractive industry is actually located.

(c) S88 zones are Specific Planning Areas which allow for different uses. The sound level limits in Table 36.404 above that apply in an S88 zone depend on the use being made of the property. The limits in Table 36.404, subsection (1) apply to property with a residential, agricultural or civic use. The limits in subsection (3) apply to property with a commercial use. The limits in subsection (5) apply to property with an industrial use that would only be allowed in an M50, M52 or M54 zone. The limits in subsection (6) apply to all property with an extractive use or a use that would only be allowed in an M56 or M58 zone.

(d) A fixed-location public utility distribution or transmission facility located on or adjacent to a property line shall be subject to the sound level limits of this section, measured at or beyond six feet from the boundary of the easement upon which the facility is located.

The property line noise level limits applicable to the project are:

- 50 dBA Leq from 7:00 a.m. to 10:00 p.m.
- 45 dBA Leq from 10:00 p.m. to 7:00 a.m.

2.2 Potential Operational Noise Impacts (Non-Construction Noise)

Noise from operation of the proposed project would result from mechanical equipment. These sources are discussed below.

The Shul building is expected to be served by eight HVAC units on the rooftop. It was assumed that the units would be screened with parapet walls at least as tall as the units. The unit sizes are not currently specified; however, it was assumed that 3-ton units would be used. A typical 3-ton HVAC condenser produces a sound power level of approximately 68-76 dBA [Carrier]; the high end of the range was assumed. It was assumed that all units would be placed at least 20 feet from project property lines.

The Datakustik Cadna/A industrial noise prediction model was used to estimate operational noise levels. The locations of project buildings were imported from the project CAD files [Atlantis Group 2023]. It was assumed that the units could operate continuously.

2.2.1 Project-Generated Noise Levels

Cadna/A was used to calculate estimated project-generated hourly noise levels from onsite noise sources. Noise levels at project property lines would range up to approximately 38 dBA Leq. Refer to Appendix A for details.

Noise levels would be in compliance with the County and City noise ordinances. Noise impacts from onsite operations would be less than significant.

2.2.2 Design Considerations

The project would include parapet walls as least as tall as the HVAC units as a design consideration. No mitigation measures were necessary.

2.3 Potential Construction Noise Impacts

The primary noise source from project construction would be from site preparation. Grading could require the use of heavy equipment such as bulldozers, loaders, and scrapers. No blasting would be necessary. Haul trucks could be used to import or export fill to or from the project site.

Construction of the project would generate a short-term temporary increase in noise in the project area. The increase in noise level would be primarily experienced close to the noise source. The magnitude of the impact would depend on the type of construction activity, noise level generated by various pieces of construction equipment, duration of the construction phase, acoustical shielding and distance between the noise source and receiver.

Construction activity and delivery of construction materials and equipment would be limited to between 7:00 a.m. and 7:00 p.m., except on Sundays or holidays.

This project would implement conventional construction techniques and equipment. Standard equipment such as scrapers, graders, backhoes, loaders, tractors, cranes, and miscellaneous trucks would be used for

construction of most project facilities. Sound levels of typical construction equipment range from approximately 65–95 dBA at 50 feet from the source (U.S. Environmental Protection Agency [U.S. EPA] 1971). Worst-case noise levels are typically associated with grading. Noise sources associated with grading of the proposed project, and associated noise levels, are shown in Table 3.

Table 3. Grading Noise Source Levels

Noise Source	Noise Level	Number
Bulldozer	86 dBA at 10 meters	1
Scraper	82 dBA at 10 meters	1
Backhoe	69 dBA at 10 meters	1
Water Truck	81 dBA at 10 meters	1
Roller	84 dBA at 10 meters	1

Source: DEFRA 2005

Cadna/A was used to estimate construction noise levels. Elevations of the project site and surrounding areas were imported from the project grading CAD files. It was assumed that up to five pieces of equipment at any given time would operate continuously within the grading area boundary. No correction was applied for downtime associated with equipment maintenance, breaks, or similar situations.

Construction of the project would produce noise levels ranging from approximately 65-74 dBA Leq (8 / 12 hours) at its property lines. Refer to Appendix B for details.

Construction would occur during the hours proscribed by the County and City of San Diego noise ordinance. Construction noise levels at project property lines would not exceed 75 dBA Leq (8 / 12 hours). Project construction noise impacts would be less than significant.

3.0 NOISE SENSITIVE LAND USES AFFECTED BY AIRBORNE NOISE

3.1 Guidelines for the Determination of Significance

(There would be an impact if) Project implementation will result in the exposure of any on- or off-site, existing or reasonably foreseeable future NSLU to exterior or interior noise (including noise generated from the project, together with noise from roads [existing and planned], railroads, airports, heliports and all other noise sources) in excess of any of the following:

A. Exterior Locations:

i. 60 dB (CNEL); or

ii. An increase of 10 dB (CNEL) over pre-existing noise.

In the case of single-family residential detached NSLUs, exterior noise shall be measured at an outdoor living area which adjoins and is on the same lot as the dwelling, and which contains at least the following minimum area:

(1) Net lot area up to 4,000 square feet: 400 square feet

(2) Net lot area 4,000 square feet to 10 acres: 10% of net lot area

(3) Net lot area over 10 acres: 1 acre

For all other projects, exterior noise shall be measured at all exterior areas provided for group or private usable open space.

B. Interior Locations:

45 dB (CNEL) except for the following cases:

a. Rooms which are usually occupied only a part of the day (schools, libraries, or similar facilities), the interior one-hour average sound level due to noise outside should not exceed 50 decibels (A).

b. Corridors, hallways, stairwells, closets, bathrooms, or any room with a volume less than 490 cubic feet.

3.2 Potential Noise Impacts

3.2.1 On-Site

The project site is located along the north side of Via de la Valle, between El Camino Real and the San Diego Surf Sports Park entrance. Via de la Valle is adjacent to the project site on the south; its centerline is approximately 40-85 feet from the south property line. Via de la Valle is a two-way roadway divided by a two-way left-turn lane, with one eastbound and one westbound through lane; the turn lane gradually diminishes from full width near the east project property line to roughly 2 feet in width near the west project property line. Via de la Valle has a posted speed limit of 40 miles per hour (mph). It has a grade of approximately 1-2% down to the east and west from its local crest near the center of the site. The typical vehicle speed was observed to be approximately 40 miles per hour.

The TNM model was calibrated using sound level measurements and actual simultaneous traffic counts conducted by dBFA staff; modeled sound levels were within 1 dBA of measured sound levels. Vehicular traffic calculations are summarized in Appendix C. A default ground type of "loose soil" was used in the model.

The future (year 2050) ADT volume on Via de la Valle is projected to be 17,300 vehicles west of Caminito Porta Delgada [SANDAG 2023]. The typical vehicle speed is expected to remain at 40 mph. The existing traffic mix of 95% passenger cars, 2.5% medium trucks, and 2.5% heavy trucks was assumed to remain constant in the future.

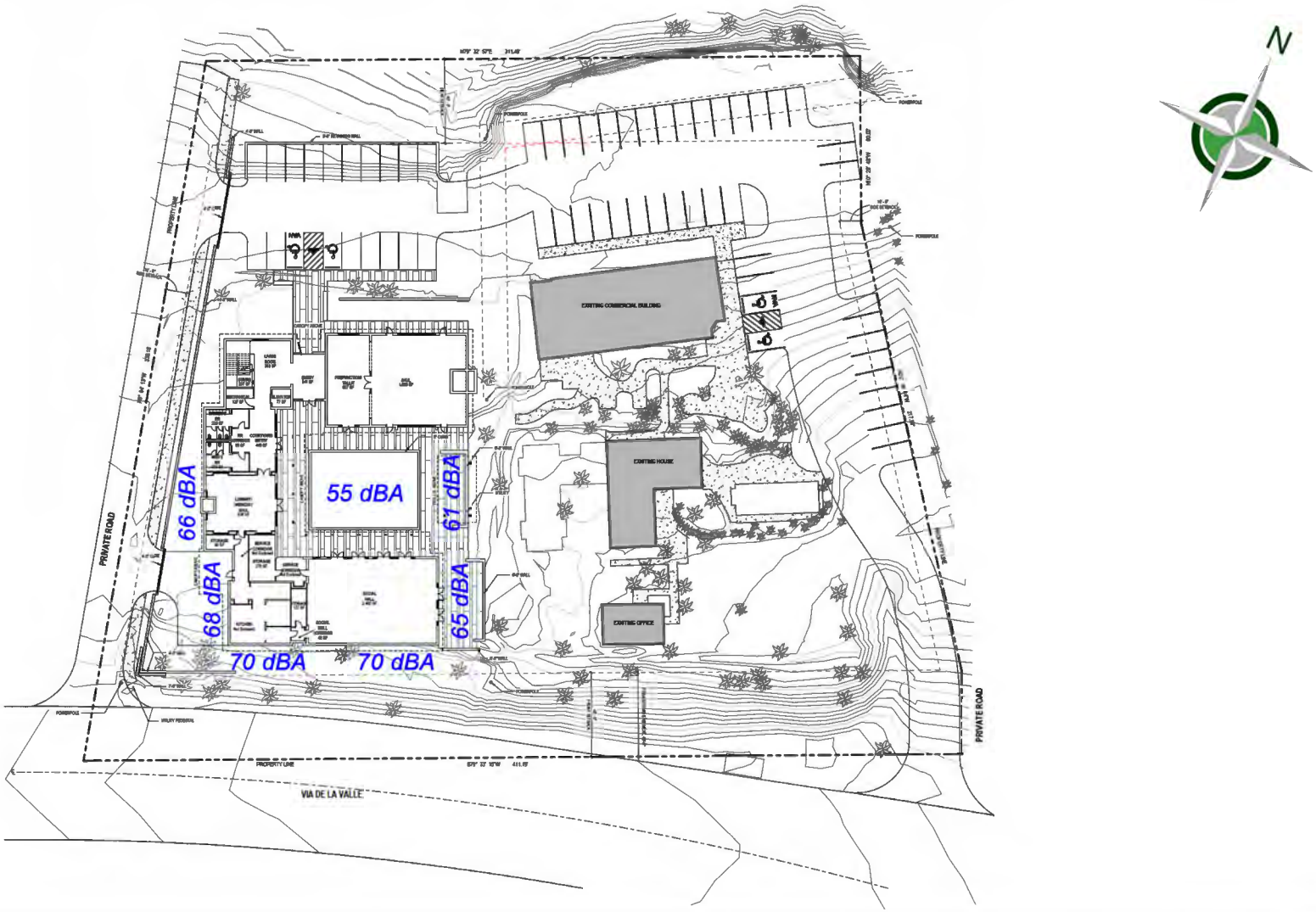
Future exterior roadway noise levels at the proposed building would range from below 60 dBA CNEL at the north façade to approximately 70 dBA CNEL at the south façade, as shown on Figure 3. Future exterior roadway noise levels at the courtyard would be below 65 dBA CNEL. Exterior noise levels would be considered "Acceptable" at all areas.

The exterior CNEL was considered equivalent to the peak-hour Leq [24 CFR §51.106]. Typical construction provides 20 dBA of exterior-to-interior noise reduction [HUD 2009]. The interior noise level within the building would be 50 dBA Leq or less. No interior noise analysis would be required.

The project noise exposure would be less than significant.

3.2.2 Off-Site

Project operation would result in noise levels up to approximately 38 dBA Leq at nearby property lines. Assuming that the Shul building would be operational for 12 daytime hours, the corresponding CNEL would be approximately 36 dBA. It was assumed that the ambient noise levels at all neighboring properties are 30 dBA CNEL or higher. As such, the project would not result in the exposure of any off-site NSLU to 60 dBA CNEL or an increase of 10 dBA CNEL over pre-existing noise.



dBF Associates, Inc.

FIGURE 3
Future Exterior Noise Levels (CNEL)

4.0 SUMMARY OF PROJECT IMPACTS, MITIGATION, AND CONCLUSIONS

4.1 Project Features

The project would include parapet walls as least as tall as the HVAC units as a design consideration. No mitigation measures were necessary.

4.2 Noise Sensitive Land Uses

No impacts were identified. No mitigation measures are required.

4.3 Project-Generated Airborne Noise

Operation of the project would generate less than 45 dBA Leq at its property lines. Therefore, the project would be in compliance with the County and City noise ordinances. No impacts were identified. No mitigation is required.

Construction of the project would occur during the hours proscribed by the County and City of San Diego noise ordinances, and would generate noise levels below 75 dBA Leq (8 / 12 hours) at its property lines. No impacts were identified. No mitigation is required.

5.0 REFERENCES

County of San Diego. 2011. General Plan. Part VIII: Noise Element. August 3.

2008. Noise Ordinance. December 10.

Department for Environment, Food, and Rural Affairs (DEFRA). 2005. Update of Noise Database for Prediction of Noise on Construction and Open Sites.

Harris, Cyril M. 1998. Handbook of Acoustical Measurements and Noise Control, Third Edition. Acoustical Society of America. Woodbury, NY.

International Organization for Standardization (ISO). 1996a. ISO 1996/1. Acoustics – Description and Measurement of Environmental Noise – Part 1: Basic Quantities and Procedures.

1996b. ISO 1996-2. Acoustics – Description and Measurement of Environmental Noise – Part 2: Acquisition of Data Pertinent to Land Use.

1996c. ISO 1996-3. Acoustics – Description and Measurement of Environmental Noise – Part 3: Application to Noise Limits.

U.S. Department of Housing and Urban Development [HUD]. 2009. Noise Guidebook. March.

6.0 LIST OF PREPARERS

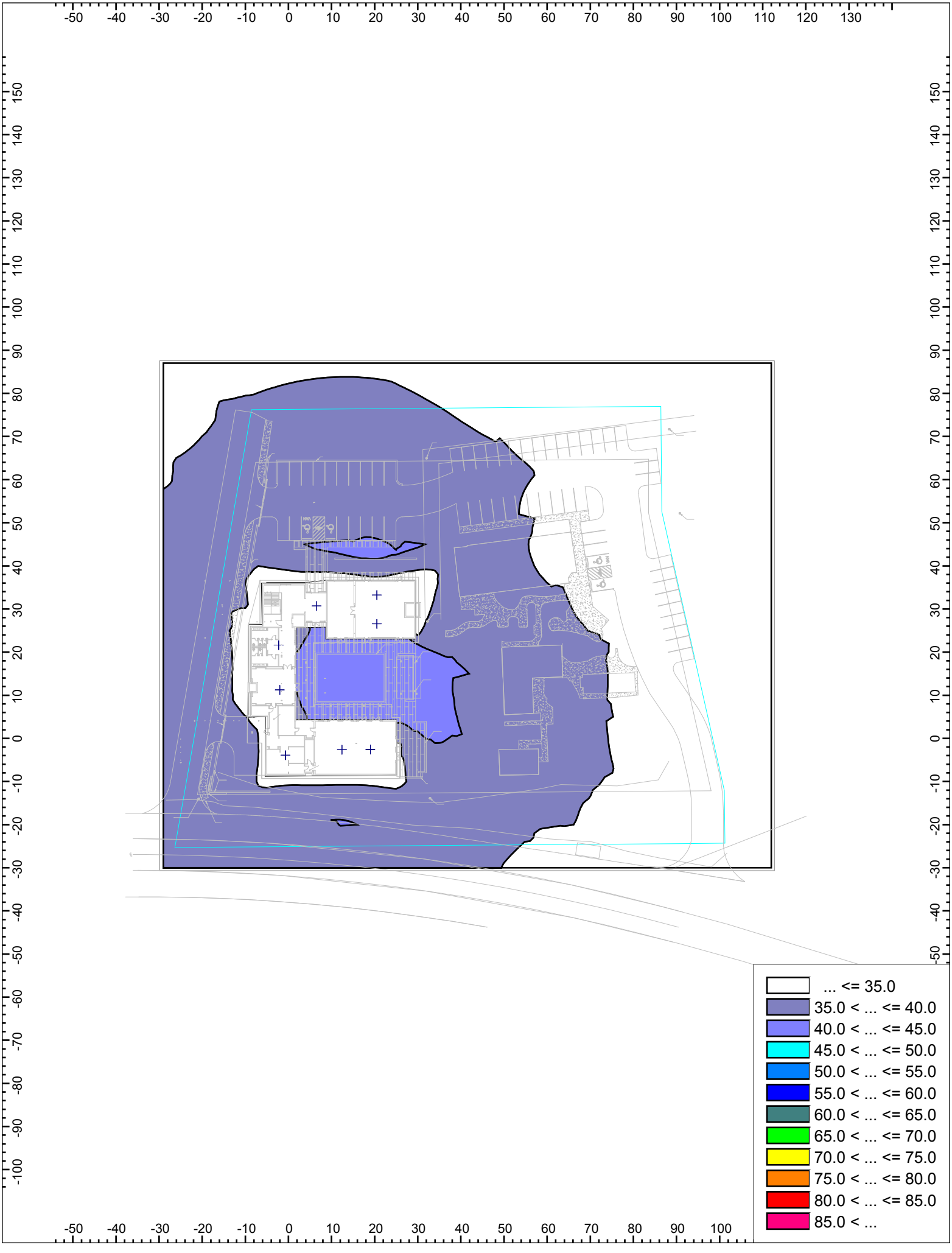
This noise analysis report was prepared by the following dBF Associates, Inc. staff:

_____

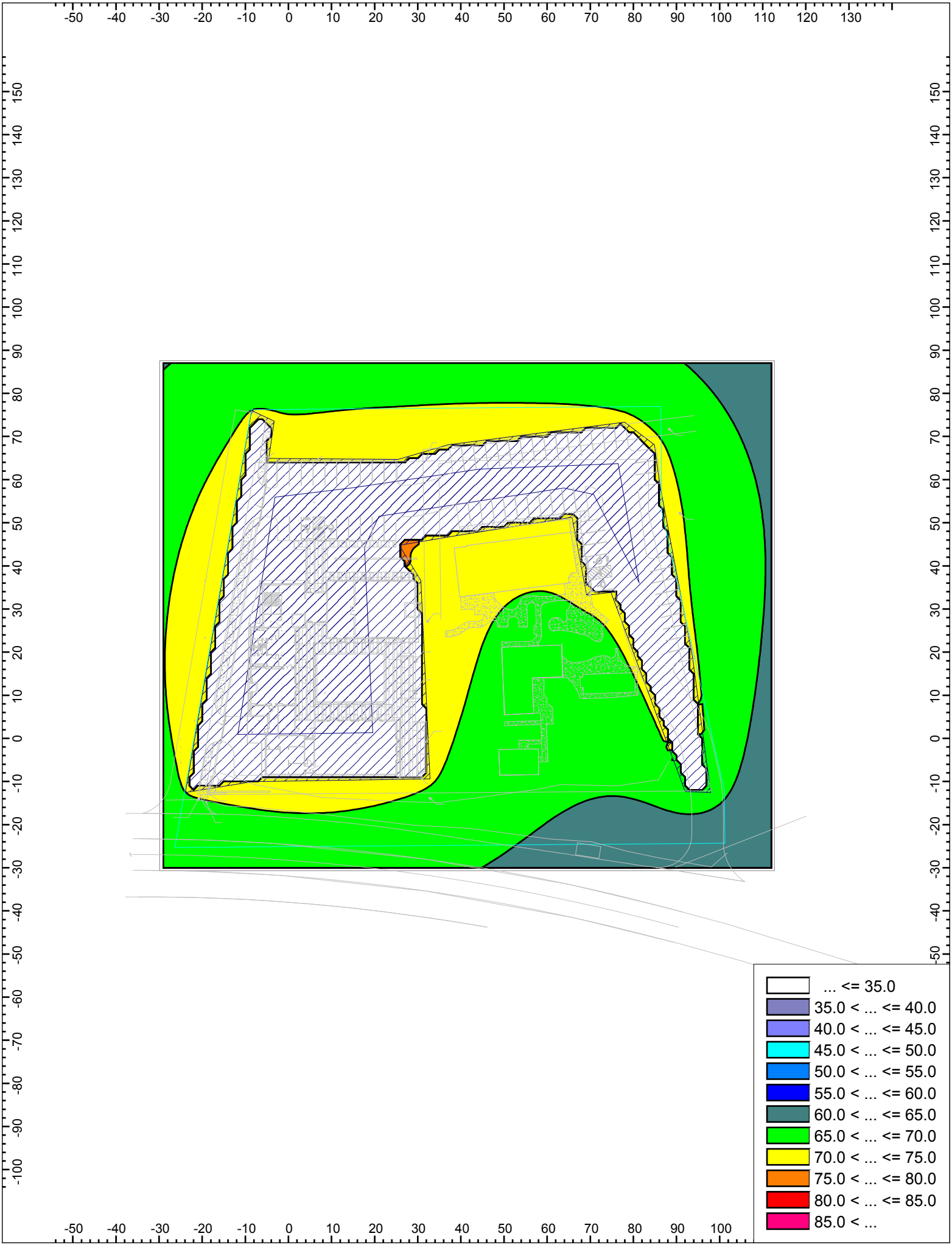
Steve Fiedler, INCE
Principal

APPENDICES

APPENDIX A
MODEL OUTPUT – OPERATIONAL NOISE CONTOURS


-50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100
... <= 35.0
35.0 < ... <= 40.0
40.0 < ... <= 45.0
45.0 < ... <= 50.0
50.0 < ... <= 55.0
55.0 < ... <= 60.0
60.0 < ... <= 65.0
65.0 < ... <= 70.0
70.0 < ... <= 75.0
75.0 < ... <= 80.0
80.0 < ... <= 85.0
85.0 < ...

APPENDIX B
MODEL OUTPUT – CONSTRUCTION NOISE CONTOURS


-50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100
... <= 35.0
35.0 < ... <= 40.0
40.0 < ... <= 45.0
45.0 < ... <= 50.0
50.0 < ... <= 55.0
55.0 < ... <= 60.0
60.0 < ... <= 65.0
65.0 < ... <= 70.0
70.0 < ... <= 75.0
75.0 < ... <= 80.0
80.0 < ... <= 85.0
85.0 < ...

APPENDIX C

ROADWAY NOISE CALCULATIONS

dBF Associates, Inc.					**15 October 2024**						
SPF					**TNM 2.5**						
INPUT: ROADWAYS							**Average pavement type shall be used unless**				
PROJECT/CONTRACT:	**Chabad Jewish Center of RSF**						**a State highway agency substantiates the use**				
RUN:	**Measured**						**of a different type with the approval of FHWA**				
Roadway		**Points**									
Name	**Width**	**Name**	**No.**	**Coordinates (pavement)**			**Flow Control**			**Segment**	
				X	**Y**	**Z**	**Control Device**	**Speed Constraint**	**Percent Vehicles Affected**	**Pvmt Type**	**On Struct?**
	ft			ft	ft	ft		mph	%		
Via De La Valle EB	30.0	point32	32	-596.8	-98.1	0.00				Average	
		point31	31	-114.6	-100.4	84.50				Average	
		point21	21	-67.8	-101.1	85.50				Average	
		point20	20	-6.3	-104.3	86.50				Average	
		point19	19	104.8	-116.2	86.50				Average	
		point18	18	218.0	-136.7	86.50				Average	
		point17	17	296.5	-156.0	86.50				Average	
		point16	16	345.2	-169.5	86.50				Average	
		point15	15	888.9	-337.2	86.50					
Via De La Valle WB	30.0	point23	23	898.5	-313.9	85.50				Average	
		point24	24	334.2	-141.4	85.50				Average	
		point25	25	285.1	-128.2	85.50				Average	
		point26	26	214.7	-111.4	86.50				Average	
		point27	27	104.3	-91.8	86.50				Average	
		point28	28	-11.5	-79.8	86.50				Average	
		point29	29	-61.0	-77.3	85.50				Average	
		point33	33	-114.1	-76.4	84.50				Average	
		point34	34	-595.2	-71.5	84.50					

dBF Associates, Inc. **15 October 2024**
SPF **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: **Chabad Jewish Center of RSF**
RUN: **Measured**

Roadway Name	Points Name	No.	Segment Autos V	Autos S	MTrucks V	MTrucks S	HTrucks V	HTrucks S	Buses V	Buses S	Motorcycles V	Motorcycles S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Via De La Valle EB	point32	32	340	50	4	50	0	0	0	0	0	0
	point31	31	340	50	4	50	0	0	0	0	0	0
	point21	21	340	50	4	50	0	0	0	0	0	0
	point20	20	340	50	4	50	0	0	0	0	0	0
	point19	19	340	50	4	50	0	0	0	0	0	0
	point18	18	340	50	4	50	0	0	0	0	0	0
	point17	17	340	50	4	50	0	0	0	0	0	0
	point16	16	340	50	4	50	0	0	0	0	0	0
	point15	15										
Via De La Valle WB	point23	23	456	50	16	50	20	50	0	0	0	0
	point24	24	456	50	16	50	20	50	0	0	0	0
	point25	25	456	50	16	50	20	50	0	0	0	0
	point26	26	456	50	16	50	20	50	0	0	0	0
	point27	27	456	50	16	50	20	50	0	0	0	0
	point28	28	456	50	16	50	20	50	0	0	0	0
	point29	29	456	50	16	50	20	50	0	0	0	0
	point33	33	456	50	16	50	20	50	0	0	0	0
	point34	34										

dBF Associates, Inc.						15 October 2024					
SPF						TNM 2.5					
INPUT: RECEIVERS											
PROJECT/CONTRACT:	Chabad Jewish Center of RSF										
RUN:	Measured										
Receiver											
Name	No.	#DUs	Coordinates (ground)			Height	Input Sound Levels and Criteria				Active
			X	Y	Z	above	Existing	Impact Criteria		NR	in
						Ground	LAeq1h	LAeq1h	Sub'l	Goal	Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
ML1	4	1	294.6	-97.9	85.50	5.00	70.20	66	10.0	8.0	Y

dBF Associates, Inc.					**15 October 2024**														
SPF					**TNM 2.5**														
INPUT: BARRIERS																			
PROJECT/CONTRACT:	**Chabad Jewish Center of RSF**																		
RUN:	**Measured**																		
Barrier									**Points**										
Name	**Type**	**Height**		**If Wall**	**If Berm**			**Add'tnl**	**Name**	**No.**	**Coordinates (bottom)**			**Height**	**Segment**				
		Min	**Max**	**$ per Unit Area**	**$ per Unit Vol.**	**Top Width**	**Run:Rise**	**$ per Unit Length**			**X**	**Y**	**Z**	**at Point**	**Seg Ht Increment**	**Perturbs #Up**	**#Dn**	**On Struct?**	**Important Reflections?**
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
Existing Office	W	0.00	99.99	0.00				0.00	point1	1	208.3	72.3	72.00	10.00	0.00	0	0		
									point2	2	208.7	46.1	72.00	10.00	0.00	0	0		
									point3	3	185.6	46.0	72.00	10.00	0.00	0	0		
									point4	4	186.6	19.1	72.00	10.00	0.00	0	0		
									point5	5	164.8	17.9	72.00	10.00	0.00	0	0		
									point6	6	162.0	68.5	72.00	10.00					
Existing House	W	0.00	99.99	0.00				0.00	point7	7	190.1	-8.0	72.00	10.00	0.00	0	0		
									point8	8	190.4	-27.6	72.00	10.00	0.00	0	0		
									point9	9	160.9	-28.0	72.00	10.00	0.00	0	0		
									point10	10	160.1	-8.4	72.00	10.00					

dBF Associates, Inc.			**15 October 2024**	
SPF			**TNM 2.5**	
INPUT: TERRAIN LINES				
PROJECT/CONTRACT:	**Chabad Jewish Center of RSF**			
RUN:	**Measured**			
Terrain Line	**Points**			
Name	**No.**	**Coordinates (ground)**		
		X	**Y**	**Z**
		ft	ft	ft
Terrain Line1	1	333.8	-87.3	83.50
	2	321.8	-97.9	84.50
	3	281.8	-90.8	85.50
	4	257.4	-85.8	86.50
	5	230.9	-78.7	86.50
	6	198.6	-76.6	86.50
	7	138.5	-68.5	86.50
	8	94.3	-66.0	86.50
	9	24.9	-57.7	86.50
	10	-26.3	-52.3	85.50
	11	-48.5	-51.2	85.50
	12	-57.1	-48.3	85.50
	13	-71.2	-46.6	84.50
	14	-93.0	-46.9	84.50
Terrain Line2	15	289.5	-17.5	73.50
	16	281.4	-31.6	68.50
	17	250.2	-36.1	68.50
	18	207.3	-35.2	69.50
	19	189.9	-38.6	71.50
	20	143.6	-45.2	74.50
	21	119.6	-48.2	75.50
	22	115.4	-48.9	76.50
	23	103.7	-48.6	77.50
	24	99.8	-48.4	78.50

	25	82.9	-48.0	79.50
	26	25.3	-44.9	80.50
	27	-24.6	-35.4	81.50
	28	-53.5	-25.8	81.50

dBF Associates, Inc. 15 October 2024
SPF TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Chabad Jewish Center of RSF
RUN: Measured
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc		Calculated	Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
ML1	4	1	70.2	70.0	66	-0.2	10	Snd Lvl	70.0	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

dBF Associates, Inc. **15 October 2024**
SPF **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: **Chabad Jewish Center of RSF**
RUN: **Future**

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Via De La Valle EB	point32	32	1644	40	43	40	43	40	0	0	0	0
	point31	31	1644	40	43	40	43	40	0	0	0	0
	point21	21	1644	40	43	40	43	40	0	0	0	0
	point20	20	1644	40	43	40	43	40	0	0	0	0
	point19	19	1644	40	43	40	43	40	0	0	0	0
	point18	18	1644	40	43	40	43	40	0	0	0	0
	point17	17	1644	40	43	40	43	40	0	0	0	0
	point16	16	1644	40	43	40	43	40	0	0	0	0
	point15	15										
Via De La Valle WB	point23	23	1644	40	43	40	43	40	0	0	0	0
	point24	24	1644	40	43	40	43	40	0	0	0	0
	point25	25	1644	40	43	40	43	40	0	0	0	0
	point26	26	1644	40	43	40	43	40	0	0	0	0
	point27	27	1644	40	43	40	43	40	0	0	0	0
	point28	28	1644	40	43	40	43	40	0	0	0	0
	point29	29	1644	40	43	40	43	40	0	0	0	0
	point33	33	1644	40	43	40	43	40	0	0	0	0
	point34	34										

dBF Associates, Inc.						**15 October 2024**					
SPF						**TNM 2.5**					
INPUT: RECEIVERS											
PROJECT/CONTRACT:	**Chabad Jewish Center of RSF**										
RUN:	**Future**										
Receiver											
Name	**No.**	**#DUs**	**Coordinates (ground)**			**Height**	**Input Sound Levels and Criteria**				**Active**
			X	**Y**	**Z**	**above**	**Existing**	**Impact Criteria**		**NR**	**in**
						Ground	**LAeq1h**	**LAeq1h**	**Sub'l**	**Goal**	**Calc.**
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receiver6	6	1	-39.0	36.0	80.00	5.00	0.00	66	10.0	8.0	Y
Receiver7	7	1	-29.9	-18.6	80.00	5.00	0.00	66	10.0	8.0	Y
Receiver8	8	1	8.4	-35.9	80.00	5.00	0.00	66	10.0	8.0	Y
Receiver9	9	1	58.3	-36.3	80.00	5.00	0.00	66	10.0	8.0	Y
Receiver10	10	1	92.8	-10.0	80.00	5.00	0.00	66	10.0	8.0	Y
Receiver11	11	1	75.5	47.6	80.00	5.00	0.00	66	10.0	8.0	Y
Receiver12	12	1	39.6	48.0	80.00	5.00	0.00	66	10.0	8.0	Y
Receiver13	13	1	105.3	93.6	80.00	5.00	0.00	66	10.0	8.0	Y

dBF Associates, Inc. 15 October 2024
SPF TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: Chabad Jewish Center of RSF
RUN: Future

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	$ per Unit Area	$ per Unit Vol.	Top Width	Run:Rise	$ per Unit Length			X	Y	Z	at Point	Seg Ht Incre-ment	Perturbs #Up	#Dn	On Struct?	Important Reflec-tions?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
Existing Office	W	0.00	99.99	0.00				0.00	point1	1	208.3	72.3	72.00	10.00	0.00	0	0		
									point2	2	208.7	46.1	72.00	10.00	0.00	0	0		
									point3	3	185.6	46.0	72.00	10.00	0.00	0	0		
									point4	4	186.6	19.1	72.00	10.00	0.00	0	0		
									point5	5	164.8	17.9	72.00	10.00	0.00	0	0		
									point6	6	162.0	68.5	72.00	10.00					
Existing House	W	0.00	99.99	0.00				0.00	point7	7	190.1	-8.0	72.00	10.00	0.00	0	0		
									point8	8	190.4	-27.6	72.00	10.00	0.00	0	0		
									point9	9	160.9	-28.0	72.00	10.00	0.00	0	0		
									point10	10	160.1	-8.4	72.00	10.00					
New Building	W	0.00	99.99	0.00				0.00	point24	24	99.0	122.6	80.00	15.00	0.00	0	0		
									point25	25	99.0	73.1	80.00	15.00	0.00	0	0		
									point26	26	19.0	72.6	80.00	15.00	0.00	0	0		
									point27	27	19.0	25.8	80.00	15.00	0.00	0	0		
									point28	28	78.6	25.8	80.00	15.00	0.00	0	0		
									point29	29	78.6	15.8	80.00	15.00	0.00	0	0		
									point30	30	84.7	15.8	80.00	15.00	0.00	0	0		
									point31	31	84.7	-30.5	80.00	15.00	0.00	0	0		
									point32	32	-20.3	-30.5	80.00	15.00	0.00	0	0		
									point33	33	-20.3	-3.6	80.00	15.00	0.00	0	0		
									point34	34	-31.3	-3.6	80.00	15.00	0.00	0	0		
									point35	35	-30.2	87.4	80.00	15.00	0.00	0	0		
									point36	36	-21.7	120.2	80.00	15.00					

dBF Associates, Inc. 15 October 2024
SPF TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Chabad Jewish Center of RSF
RUN: Future
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc					
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver6	6	1	0.0	65.5	66	65.5	10	----	65.5	0.0	8	-8.0
Receiver7	7	1	0.0	68.8	66	68.8	10	Snd Lvl	68.8	0.0	8	-8.0
Receiver8	8	1	0.0	70.0	66	70.0	10	Snd Lvl	70.0	0.0	8	-8.0
Receiver9	9	1	0.0	69.5	66	69.5	10	Snd Lvl	69.5	0.0	8	-8.0
Receiver10	10	1	0.0	64.9	66	64.9	10	----	64.9	0.0	8	-8.0
Receiver11	11	1	0.0	61.2	66	61.2	10	----	61.2	0.0	8	-8.0
Receiver12	12	1	0.0	55.4	66	55.4	10	----	55.4	0.0	8	-8.0
Receiver13	13	1	0.0	61.8	66	61.8	10	----	61.8	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	8	0.0	0.0	0.0
All Impacted	3	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0