



**Noise Analysis for the
Villa Serena Project,
City of San Marcos, California**

Prepared for
City of San Marcos
Development Services Department
Planning Division
1 Civic Center Drive
San Marcos, CA 92069
Contact: Norman Pedersen

Prepared by
RECON Environmental, Inc.
1927 Fifth Avenue
San Diego, CA 92101
P 619.308.9333

RECON Number 8458
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A handwritten signature in black ink that reads "Jessica Fleming". The signature is written in a cursive, flowing style.

Jessica Fleming, Environmental Analyst

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Acronyms

ADT	average daily traffic
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
City	City of San Marcos
CNEL	community noise equivalent level
dB	decibel
dB(A)	A-weighted decibel
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
HVAC	heating, ventilating, and air conditioning
ITE	Institute of Transportation Engineers
L ₉₀	noise level exceeded 90 percent of the time
L _{eq}	one-hour equivalent noise level
LOS	Level of Service
L _{pw}	sound power level
SANTEC	San Diego Traffic Engineers' Council

Executive Summary

The proposed Villa Serena project (project) site is located at 339 and 340 Marcos Street in the Richmar Neighborhood of the city of San Marcos. The project site is currently developed with 136 one and two bedroom multi-family units. The project would demolish the existing buildings and construct 148 one-, two-, and three-bedroom multi-family units and associated parking, open space, and amenities.

This report discusses potential noise impacts from the construction and operation of the project. As part of this assessment, noise levels due to vehicle traffic were calculated and evaluated against City of San Marcos (City) noise and land use compatibility guidelines. In addition to compatibility, the potential for noise to impact adjacent uses from future on-site sources and construction activity was assessed. A summary of the findings is provided below.

Construction Noise

Construction activity is regulated by the City Municipal Code. The code limits noise by restricting construction activities to hours unlikely to impact the community. Noise associated with the grading, building, and paving for the project would potentially result in short-term impacts to surrounding residential properties. Construction noise levels would range from 53 to 75 decibels A-weighted equivalent noise level [dB(A) L_{eq}] at the adjacent property lines. Construction activities would generally occur over the period between 7:00 a.m. and 6:00 p.m. on weekdays. Although the existing adjacent uses would be exposed to construction noise levels that may be heard above ambient conditions, the exposure would be temporary and would not exceed 75 dB(A) L_{eq} . As construction activities associated with the project would comply with Section 10.24.020 (b)(9) of the City Municipal Code, temporary increases in noise levels from construction activities would be less than significant.

Traffic Noise

Exterior noise levels were modeled at the project site to determine compatibility with City standards. The applicable standards for multi-family uses are an exterior noise level of 65 community noise equivalent level (CNEL) and an interior noise level of 45 CNEL. The main source of noise at the project site is vehicle traffic on Mission Road, Richmar Avenue, Marcos Street, and Liberty Drive. First-floor vehicle traffic contours across the project site were calculated. Exterior traffic noise levels were also calculated at first- through third-floor receivers. The project would include exterior useable space including turf areas and tot lots north of the proposed buildings. As calculated in this analysis, exterior noise levels at the exterior use areas (Receivers 1 through 6) are projected to range from 43 to 50 CNEL. This exterior noise level would be compatible with the City's standard of 65 CNEL.

Exterior noise levels at the first- through third-floors of the building façades are projected to range from 56 to 65 CNEL. Standard wood frame construction would achieve an exterior-to-interior noise reduction of 25 dB(A) (Federal Highway Administration 2011). Thus, because exterior noise levels at the building façades would be 65 CNEL or less, interior

noise levels would be 40 CNEL or less in all habitable rooms. Interior noise levels would therefore not exceed the City standard of 45 CNEL.

On-site Generated Noise

The noise sources on the project site after completion of construction are anticipated to be those that would be typical of any residential complex, such as vehicles arriving and leaving and landscape maintenance machinery. None of these noise sources are anticipated to violate the Municipal Code. Rooftop HVAC noise levels were modeled at the property line adjacent property lines. As shown, on-site generated noise levels would range from 35 to 45 dB(A) L_{eq} . Noise levels would not exceed the applicable Noise Ordinance limits at the property lines.

1.0 Introduction

1.1 Project Description

The project is located at 339 and 340 Marcos Street in the Richmar Neighborhood of the city of San Marcos. Figure 1 shows the regional location of the project. The property consists of three parcels bordered by single-family residential uses to the north, Fitzpatrick Road to the east, Richmar Avenue to the south, and Liberty Drive to the west. The parcels are separated by Marcos Street running north and south intersecting with Richmar Avenue to the south. The Sprinter light rail transit line connecting Escondido and Oceanside is approximately one-eighth mile immediately to the south. Figure 2 shows an aerial photograph of the project and vicinity.

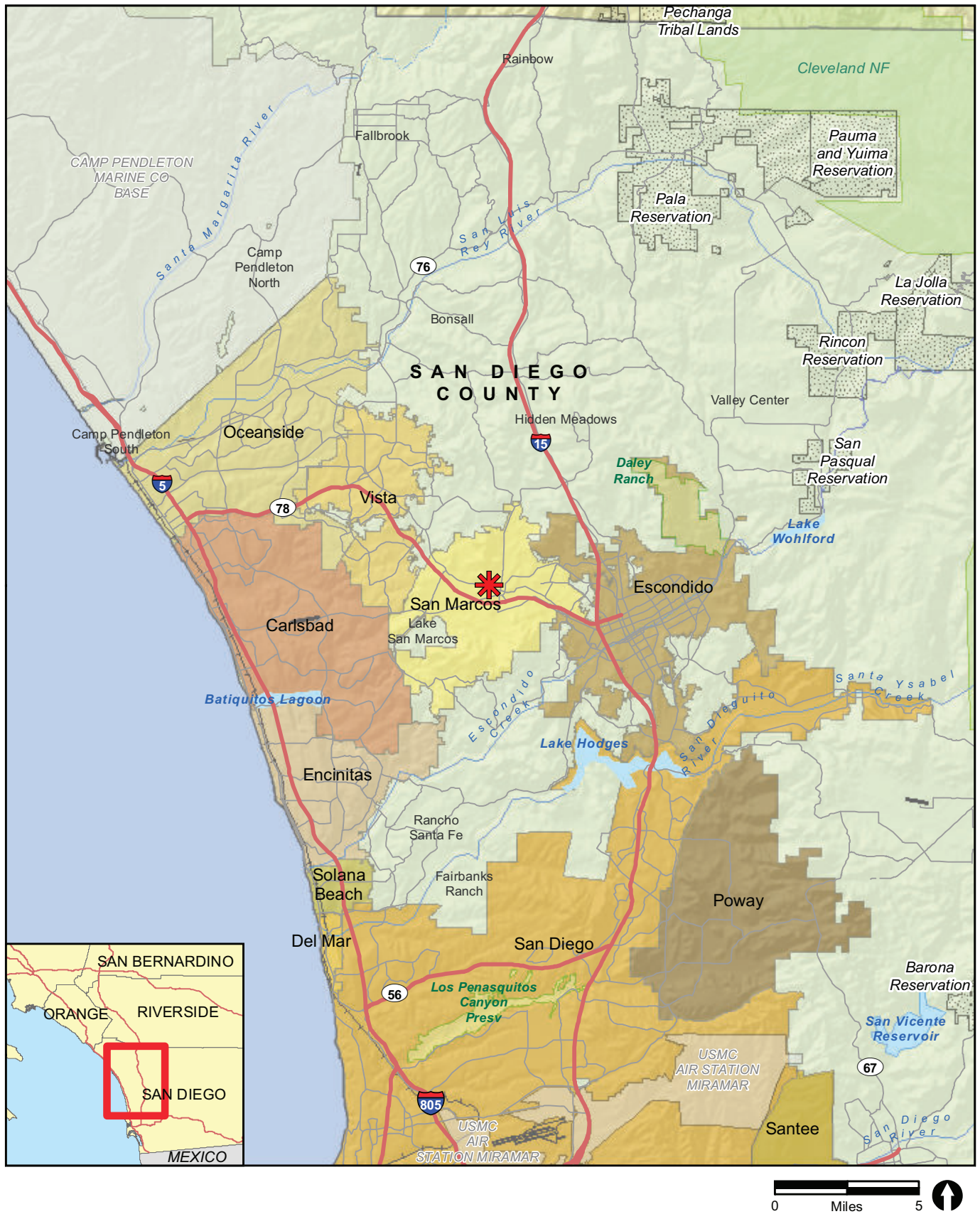
The project site is currently developed with 136 one and two bedroom multi-family units in two- and three-story buildings totaling approximately 102,800 square feet. The project would demolish the existing buildings and construct 148 one-, two-, and three-bedroom multi-family units and associated parking, open space, and amenities. The project would be constructed in two phases. Phase 1 would construct 84 multi-family units and 148 parking spaces at 340 Marcos Street (Figure 3a), and Phase 2 would construct 63 multi-family units and 109 parking spaces at 339 Marcos Street (Figures 3b).

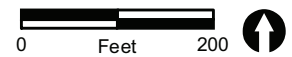
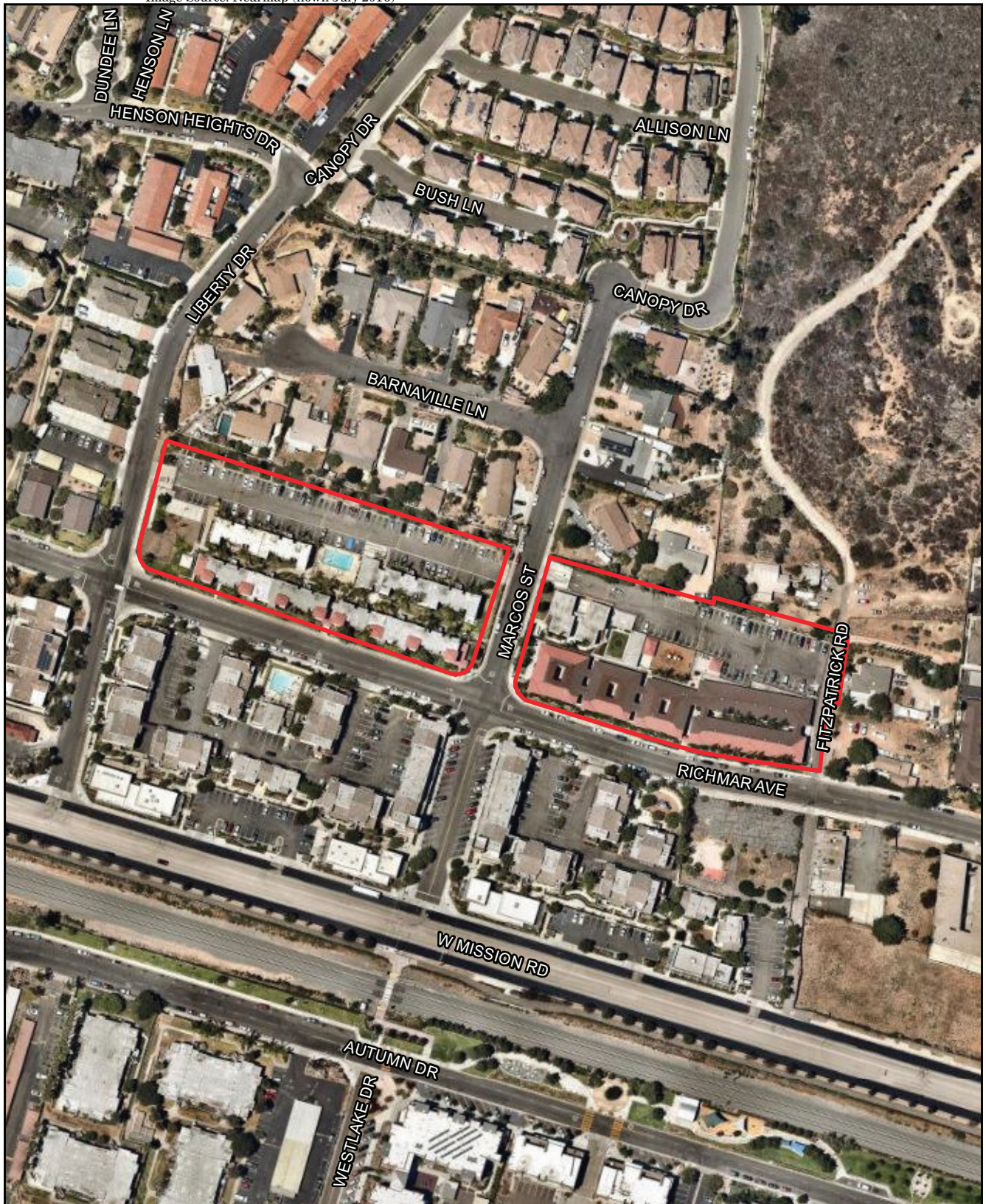
The project would implement the envisioned pedestrian-scaled residential neighborhood for the Richmar Neighborhood. The is located between two Sprinter light-rail transit stations and is in close proximity to public amenities such as San Marcos Elementary School, Boys and Girls Club, and public parks.

The project's primary goals are to:

- a) Continue a multi-family residential development pattern in the center of San Marcos.
- b) Revitalize an underutilized and under-parked residential area within the Richmar Neighborhood and along the Sprinter line to the South.
- c) Provide a walkable community to reduce automobile use.
- d) Contribute to the stock of affordable housing in the City.
- e) Take advantage of the nearby transit infrastructure to facilitate ridership.

Additionally, the project would achieve a minimum Leadership in Energy & Environmental Design Gold certification by incorporating green features such as exceeding minimum Title 24 energy requirements, using solar power for common area lighting, implementing water conservation features, and implementing construction waste managements.





 Project Boundary

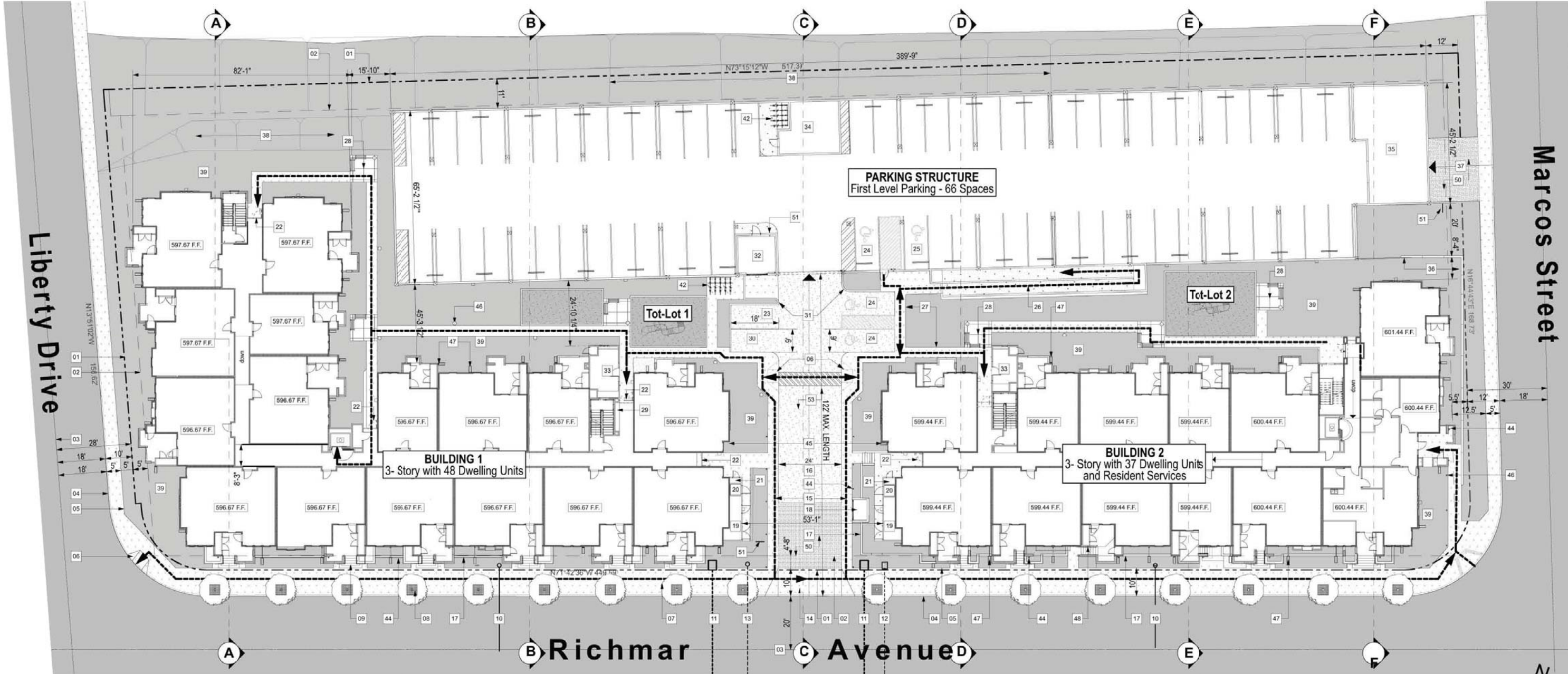


FIGURE 3a
Phase 1 Site Plan

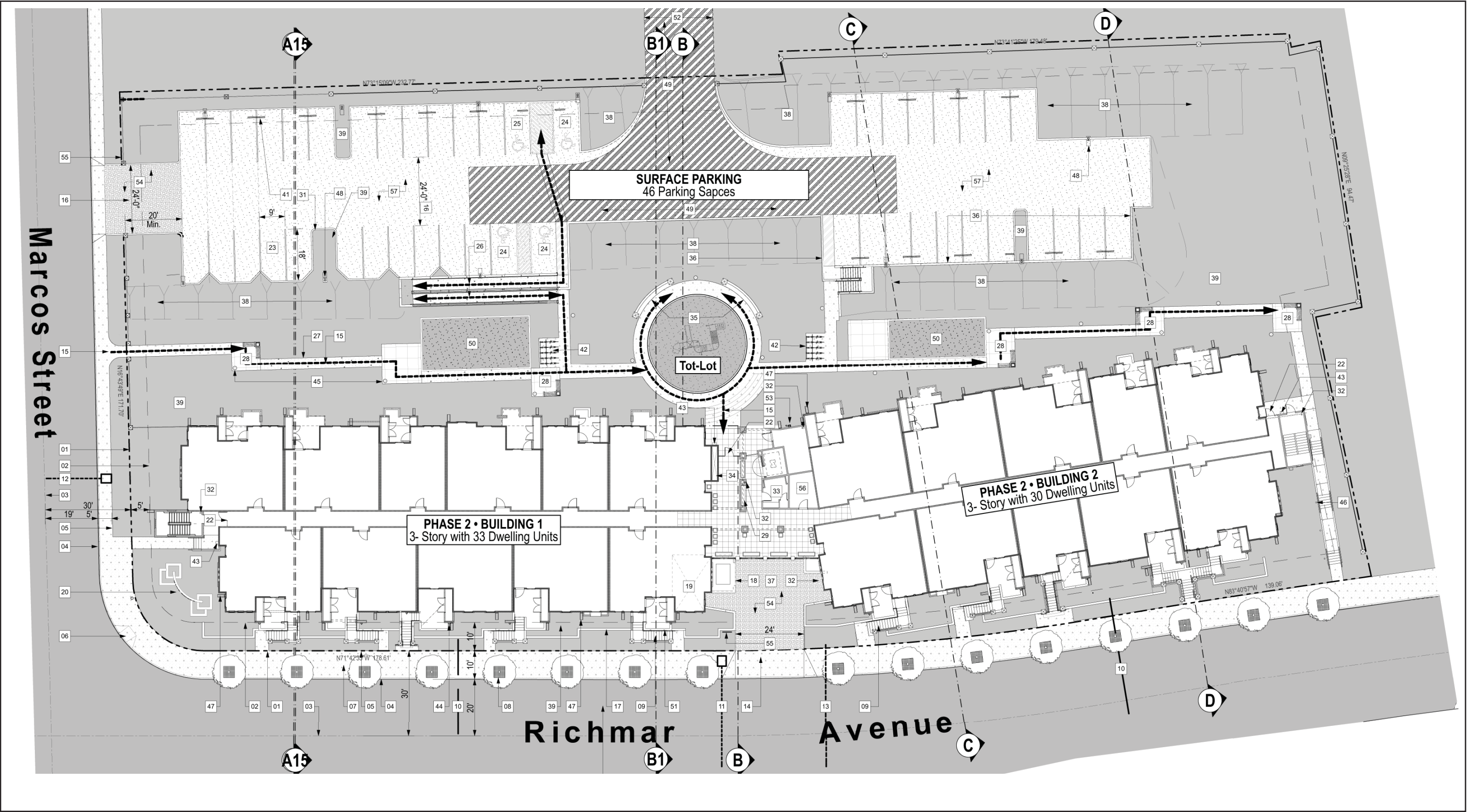


FIGURE 3b
Phase 2 Site Plan

1.2 Fundamentals of Noise

Sound levels are described in units called the decibel (dB). Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. Thus, a doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; a halving of the energy would result in a 3 dB decrease. However, human perception of noise has no simple correlation with acoustical energy. A change in noise levels is generally perceived as follows: 3 A-weighted dB [dB(A)] barely perceptible, 5 dB(A) readily perceptible, and 10 dB(A) perceived as a doubling or halving of noise (California Department of Transportation 2013).

In technical terms, sound levels are described as either a “sound power level” or a “sound pressure level,” which while commonly confused are two distinct characteristics of sound. Both share the same unit of measure, the dB. However, sound power, expressed as L_{pw} , is the energy converted into sound by the source. As sound energy travels through the air, it creates a sound wave that exerts pressure on receivers such as an ear drum or microphone, the sound pressure level. Sound measurement instruments only measure sound pressure, and limits used in standards are generally sound pressure levels.

The human ear is not equally sensitive to all frequencies within the sound spectrum. To accommodate this phenomenon, the A-scale, which approximates the frequency response of the average young ear when listening to most ordinary everyday sounds, was devised. When people make relative judgments of the loudness or annoyance of a sound, their judgments correlate well with the A-scale sound levels of those sounds. Therefore, the “A-weighted” noise scale is used for measurements and standards involving the human perception of noise. Noise levels using A-weighted measurements are designated with the notation dB(A).

1.1.1 Descriptors

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important. In addition, most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors has been developed. The noise descriptors used for this study are the equivalent noise level (L_{eq}) and the community noise equivalent level (CNEL).

The L_{eq} is the equivalent steady-state noise level in a stated period of time that is calculated by averaging the acoustic energy over a time period; when no period is specified, a 1-hour period is assumed.

The CNEL is a 24-hour equivalent sound level. The CNEL calculation applies an additional 5 dB(A) penalty to noise occurring during evening hours, between 7:00 p.m. and 10:00 p.m., and a 10 dB(A) penalty is added to noise occurring during the night, between 10:00 p.m. and 7:00 a.m. These increases for certain times are intended to account for the added sensitivity of humans to noise during the evening and night.

1.1.2 Propagation

Sound from a localized source (approximating a “point” source) radiates uniformly outward as it travels away from the source in a spherical pattern, known as geometric spreading. The sound level decreases or drops off at a rate of 6 dB(A) for each doubling of the distance.

Traffic noise is not a single, stationary point source of sound. The movement of vehicles makes the source of the sound appear to emanate from a line (line source) rather than a point when viewed over some time interval. The drop-off rate for a line source is 3 dB(A) for each doubling of distance.

The propagation of noise is also affected by the intervening ground, known as ground absorption. A hard site (such as parking lots or smooth bodies of water) receives no additional ground attenuation, and the changes in noise levels with distance (drop-off rate) are simply the geometric spreading of the source. A soft site (such as soft dirt, grass, or scattered bushes and trees) provides an additional ground attenuation value of 1.5 dB(A) per doubling of distance. Thus, a point source over a soft site would drop off at 7.5 dB(A) per doubling of distance.

2.0 Applicable Noise Standards

2.1 General Plan

The Noise Element of the City of San Marcos (City) General Plan provides land use compatibility guidelines to ensure that new developments are sited, designed, and constructed in such a manner that ambient noise levels would not create an unacceptable noise environment for the occupants and patrons of the new development. Table 1 provides the interior and exterior noise guidelines for various types of uses and developments.

The project proposes a multi-family residential development. As shown in Table 1, the applicable standards for multi-family uses are an exterior noise level of 65 CNEL and an interior noise level of 45 CNEL.

Table 1 Interior and Exterior Noise Guidelines		
Land Use	Maximum Noise Level (CNEL)	
	Interior ¹	Exterior ^{2,3}
Residential – single-family, mobile homes, or age-restricted housing	45	60
Residential – multi-family residences or mixed use	45	65
Lodging—hotels, motels	45	65
Schools, churches, hospitals, residential care facility, child-care facilities	50	65
Passive recreational parks, nature preserves, contemplative spaces, cemeteries	--	65
Active parks, golf courses, athletic fields, outdoor spectator sports, water recreation	--	65
Office/professional, government, medical/dental, commercial, retail, laboratories	50	65
Industrial, manufacturing, utilities, agriculture, mining, stables, ranching, warehouse, maintenance/repair	--	65
SOURCE: City of San Marcos General Plan Update, Noise Element 2013. CNEL – community noise equivalent level. ¹ Applies only to interior habitable rooms. ² Exterior noise standard does not apply for land uses where no exterior use area is proposed or necessary, such as a library. ³ For single-family detached dwelling units, “exterior noise level” is defined as the noise level measured at an outdoor living area that adjoins and is on the same lot as the dwelling.		

2.2 Municipal Code

2.2.1 Title 10, Chapter 10.24 - Construction

Section 10.24.020 (b)(9) of the City Municipal Code identifies permissible hours for general construction activities. Excluding City holidays, construction may occur weekdays from 7:00 a.m. to 6:00 p.m. or Saturdays from 8:00 a.m. to 5:00 p.m. Grading is often the loudest phase of construction. Section 17.32.180 restricts grading and earthworks activities to between the hours of 7:00 a.m. and 4:30 p.m., Monday through Friday.

2.2.2 Title 20 - Zoning Ordinance

City Municipal Code Title 20 – Zoning Ordinance contains General Development Standards. Performance standards in Section 20.300.070 (f) set restrictions on noise levels by zoning. No person shall create or allow the creation of exterior noise that causes the noise level to exceed the noise standards shown in Table 2.

Table 2 Municipal Code Property Line Noise Standards		
Zone	Time	Allowable Property Line Noise Level [dB(A) L_{eq}]
Single-Family Residential (A, R-1, R-2)	7:00 a.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	50
Multi-Family Residential (R-3)	7:00 a.m. to 10:00 p.m.	65
	10:00 p.m. to 7:00 a.m.	55
Commercial (C, O-P, SR)	7:00 a.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	55
Industrial	7:00 a.m. to 10:00 p.m.	65
	10:00 p.m. to 7:00 a.m.	60
Source: Section 20.300.070(f) Table 20.300-4, San Marcos Municipal Code Title 20 – Zoning Code		

The project site and the properties to the north, west, and east are zoned Multi-family Residential (R-3). The properties to the southwest are zoned Mixed-Use (MU-1) and are developed with multi-family uses. The properties to the south and southeast are designated as the Paseo De Oro Specific Plan Area and are developed with multi-family uses. For the purposes of this analysis, the property line noise levels most applicable to MU-1 zones and multi-family uses within the Paseo De Oro Specific Plan Area are considered to be the noise level limits for Multi-family Residential (R-3) zones. The standards at the property line located between the project site and the adjacent properties are 65 dB(A) L_{eq} from 7:00 a.m. to 10:00 p.m. and 55 dB(A) L_{eq} from 10:00 p.m. to 7:00 a.m.

2.3 California Code of Regulations

Interior noise levels for habitable rooms are regulated also by Title 24 of the California Code of Regulations (CCR), California Noise Insulation Standards. Title 24, Chapter 12, Section 1207.4, of the California Building Code requires that interior noise levels attributable to exterior sources not exceed 45 CNEL in any habitable room. A habitable room is a room used for living, sleeping, eating, or cooking. Bathrooms, closets, hallways, utility spaces, and similar areas are not considered habitable rooms for this regulation (24 CCR 1207 2013).

3.0 Existing Conditions

Existing noise levels in the vicinity of the project site were measured on October 6, 2016, using a Larson-Davis Model LxT, Type 1 Integrating Sound Level Meter, serial number 3827. The following parameters were used:

Filter:	A-weighted
Response:	Slow
Interval Period	1 minute
Time History Period:	5 seconds

The meter was calibrated before and after each measurement. The meter was set 5 feet above the ground level for each measurement.

Noise measurements were taken to obtain typical ambient noise levels at the project site and in the vicinity. The warm and sunny with a slight breeze, zero to three miles per hour on average. Three 15-minute measurements were taken, as described below. The primary sources of on-site noise were due to traffic on area roadways including Richmar Avenue and Mission Road. Secondary sources of noise were the Sprinter and air traffic. The measurement locations are shown on Figure 4, and detailed data is contained in Attachment 1.

Measurement 1 was on the playground near the western boundary of the project site, 25 feet east of the edge of Liberty Drive. The main noise source at this location was vehicle traffic on Richmar Avenue. Secondary sources of noise were vehicle traffic on Liberty Drive and Mission Road, the Sprinter, air craft, and pedestrians.

Measurement 2 was located north of the project boundary, east of Marcos Street. The main noise source at this location was vehicle traffic on Mission Road. Secondary sources of noise were vehicle traffic on Marcos Street, Richmar Avenue, and Liberty Drive, the Sprinter, and air craft.

Measurement 3 was located at the project boundary north of Richmar Avenue between Liberty Drive and Marcos Street. The main noise source at this location was vehicle traffic on Richmar Avenue. Secondary sources of noise included aircraft.





-  Project Boundary
-  Noise Measurement Location



FIGURE 4
Noise Measurement Locations

Noise measurements are summarized in Table 3. Traffic counts conducted during Measurements 1, 2, and 3 are summarized in Table 4.

Table 3 Noise Measurements					
Measurement	Location	Time	Noise Sources	L _{eq}	L ₉₀
1	25 feet east of Liberty Drive	11:42 a.m.–11:57 a.m.	Richmar Avenue, Liberty Drive, Mission Road, Sprinter, air craft	55.0	43.9
2	5 feet east of Marcos Street	12:06 p.m.–12:21 p.m.	Mission Road, Marcos Street, Richmar Avenue, Liberty Drive, Sprinter, air craft	51.2	42.4
3	10 feet north of Richmar Avenue	12:28 p.m.–12:43 p.m.	Richmar Avenue, air craft	56.8	44.6
L ₉₀ = Noise level exceeded 90 percent of the time. Note: Noise measurement data is contained in Attachment 1.					

Table 4 15-minute Traffic Counts							
Measurement	Roadway	Direction	Autos	Medium Trucks	Heavy Trucks	Buses	Motorcycles
1	Liberty Drive	Southbound	9	0	0	0	1
		Northbound	4	0	0	0	0
2	Marcos Street	Southbound	9	0	0	0	0
		Northbound	1	0	0	0	0
3	Richmar Avenue	Westbound	8	1	0	0	0
		Eastbound	12	1	0	0	0

4.0 Analysis Methodology

4.1 Construction Noise Analysis

Project construction noise would be generated by diesel engine-driven construction equipment used for site preparation and grading, removal of existing structures and pavement, loading, unloading, and placing materials and paving. Diesel engine-driven trucks also would bring materials to the site and remove the soils from excavation.

Construction equipment with a diesel engine typically generates maximum noise levels from 80 to 90 dB(A) L_{eq} at a distance of 50 feet (Federal Transit Administration [FTA] 2006). Table 5 summarizes typical construction equipment noise levels.

Table 5	
Typical Construction Equipment Noise Levels	
Equipment	Noise Level at 50 Feet [dB(A) L_{eq}]
Air Compressor	81
Backhoe	80
Compactor	82
Concrete Mixer	85
Crane	81
Dozer	85
Excavator	81
Grader	85
Jack Hammer	88
Loader	85
Paver	89
Pump	76
Roller	74
Scraper	89
Truck	88
SOURCE: FTA 2006.	

During excavation, grading, and paving operations, equipment moves to different locations and goes through varying load cycles, and there are breaks for the operators and for non-equipment tasks, such as measurement. Although maximum noise levels may be 85 to 90 dB(A) at a distance of 50 feet during most construction activities, hourly average noise levels from the grading phase of construction would be 82 dB(A) L_{eq} at 50 feet from the center of construction activity when assessing the loudest pieces of equipment working simultaneously.

4.2 Traffic Noise Analysis

Noise generated by future traffic was modeled using SoundPLAN Essential, version 3.0. The SoundPLAN program (Navcon Engineering 2015) uses the Federal Highway Administration's (FHWA) Traffic Noise Model algorithms and reference levels to calculate noise levels at selected receiver locations. The model uses various input parameters, such as projected hourly average traffic rates; vehicle mix, distribution, and speed; roadway lengths and gradients; distances between sources, barriers, and receivers; and shielding provided by intervening terrain, barriers, and structures. Receivers, roadways, and barriers were input into the model using three-dimensional coordinates. The locations of future buildings were obtained from project plans and drawings.

The main source of noise at the project site is vehicle traffic on Mission Road, Richmar Avenue, Marcos Street, and Liberty Drive. For the purpose of traffic noise compatibility analysis, the noisiest condition is represented as the maximum level of service (LOS) C traffic volume. This condition represents a condition where the maximum number of vehicles are using the roadway at the maximum speed. LOS A and B categories allow full travel speed but do not have as many vehicles, while LOS E and F have a greater number

of vehicles, but due to the traffic volume travel at reduced speeds, thus generating less noise. Mission Road is a 4-lane major arterial with a maximum LOS C capacity of 32,000 average daily traffic (ADT) and Richmar Avenue is a 2-lane collector with a maximum LOS C capacity of 6,400 ADT (City of San Marcos 2012).

Marcos Street and Liberty Drive are both 2-lane residential, non-mobility element roadways. Levels of service are not applied to residential streets since their primary purpose is to serve abutting lots, not carry through traffic. The future traffic volume for Marcos Street was obtained from the San Diego Association of Governments (SANDAG) Transportation Forecast Information Center. According to SANDAG, the portion of Marcos Street south of the project site has a future volume of 5,100 ADT (SANDAG 2016). No volume is provided for the portion of Marcos Street adjacent to the project site because it does not carry a significant amount of traffic; therefore, a future volume of 5,100 ADT was modeled for the entire length of Marcos Street. No volume is provided for the entire segment of Liberty Drive either. Residential roads generally have an LOS C capacity of 1,500 ADT or less (San Diego Traffic Engineers' Council [SANTEC]/Institute of Transportation Engineers [ITE] 2000). A future traffic volume of 1,500 ADT was modeled for Liberty Drive.

Traffic noise levels are calculated based on the peak-hour traffic volumes, which based on traffic counts conducted along Mission Road is approximately 10 percent of the ADT volume (RBF Consulting 2015). Based on the traffic count data for Mission Road the predicted CNEL is 0.2 to 0.5 dB(A) lower than the peak-hourly L_{eq} calculated. Thus, using the peak hour noise level to assess the on-site noise levels is conservative.

Due to the limited traffic during noise measurements, the field data could not be used to support a location specific vehicle classification mix for the adjacent roadways. Thus, based on data collected in the San Diego region for similar roadways, a conservative vehicle classification mix of 94.5 percent automobiles, 3 percent medium trucks, 1 percent heavy trucks, 1 percent buses, and 0.5 percent motorcycles was modeled. Table 6 summarizes the traffic volumes and vehicle classification mixes for the modeled roadways.

Table 6							
Traffic Parameters							
Roadway	Modeled ADT	Speed	Vehicle Mix (Percent)				
			Autos	Medium Trucks	Heavy Trucks	Buses	Motorcycles
Mission Road	32,000	45	94.5	3.0	1.0	1.0	0.5
Richmar Avenue	6,400	35	94.5	3.0	1.0	1.0	0.5
Liberty Drive	1,500	25	94.5	3.0	1.0	1.0	0.5
Marcos Street	5,100	25	94.5	3.0	1.0	1.0	0.5

4.3 On-site Generated Noise Analysis

The noise sources on the project site after completion of construction are anticipated to be those that would be typical of any residential complex, such as vehicles arriving and

leaving, children at play, and landscape maintenance machinery. None of these noise sources are anticipated to violate the San Marcos Municipal Code or result in a substantial permanent increase in existing noise levels. However, the project would include split-system residential heating, ventilation, and air conditioning (HVAC) units with an interior air handler mounted within the ceiling areas of each dwelling unit and a condenser unit mounted on the roof, concealed from view by the surrounding parapet roof walls. The condensers mounted on the roofs have the potential to produce noise in excess of City limits (see Table 2).

It is not known at this time which manufacturer, brand, or model of unit or units would be selected for use in the project. For the purposes of this analysis, to determine what general noise levels the HVAC units would generate, it was assumed that the rooftop units would be similar to a Trane split system unit with a sound power level of 72 dB(A). The unit specification sheets are included in Attachment 2.

Noise levels due to on-site sources were modeled using SoundPLAN. The SoundPLAN program models noise propagation following the International Organization for Standardization method *ISO 9613-2 – Acoustics, Attenuation of Sound during Propagation Outdoors*. The model calculates noise levels at selected receiver locations using input parameter estimates such as total noise generated by each noise source; distances between sources, barriers, and receivers; and shielding provided by intervening structures.

5.0 Future Acoustical Environment and Impacts

5.1 Construction Noise

Noise associated with the grading, building, and paving for the project would potentially result in short-term impacts to surrounding residential properties. There are residential uses located adjacent the project site. A variety of noise-generating equipment would be used during the construction phase of the project, such as excavators, backhoes, front-end loaders, and concrete saws, along with others. The exact number and pieces of construction equipment required are not known at this time. Maximum noise levels may be 85 to 90 dB(A) at a distance of 50 feet during most construction activities. Construction noise is considered a point source and would attenuate at approximately 6 dB(A) for every doubling of distance. The closest residential property line is approximately 180 feet from the center of the project site. Maximum construction noise levels of 85 to 90 dB(A) at 50 feet would attenuate to 74 to 79 dB(A) at 180 feet. However, hourly average noise levels would be lower when taking into account the equipment usage factors. For the project, the loudest phase of construction would be the excavation phase and would include dozers, loaders, and excavators. Construction noise levels were calculated based on all three pieces of equipment being active simultaneously.

As discussed in Section 4.1, hourly average noise levels associated with the grading phase of construction would be 82 dB(A) L_{eq} at 50 feet, or a sound power level of approximately

114 dB(A) from the center of construction activity when assessing the loudest pieces of equipment working simultaneously. To reflect the nature of grading and construction activities, equipment was modeled as an area source distributed over the project footprint for each phase. The total sound energy of the area source was modeled with all pieces of equipment operating simultaneously. Noise levels were modeled at a series of 25 receivers located at the adjacent residential uses. The results are summarized in Table 7. Modeled receiver locations and construction noise contours are shown in Figure 5. SoundPLAN data is contained in Attachment 3.

Table 7 Construction Noise Levels at Adjacent Property Lines		
Receiver	Noise Level [dB(A) L_{eq}]	
	Phase 1	Phase 2
1	68	53
2	69	54
3	72	54
4	72	55
5	73	57
6	73	58
7	73	59
8	73	61
9	72	64
10	66	70
11	63	73
12	59	74
13	56	75
14	54	75
15	54	70
16	54	65
17	56	69
18	58	70
19	62	69
20	68	63
21	69	59
22	69	58
23	69	56
24	68	54
25	64	53

As shown, although maximum construction noise levels may range from 74 to 79 dB(A) at the nearest residential property line, average construction noise levels would range from 53 to 75 dB(A) L_{eq} at the adjacent property lines. Construction activities would generally occur over the period between 7:00 a.m. and 6:00 p.m. on weekdays. Although the existing adjacent uses would be exposed to construction noise levels that may be heard above ambient conditions, the exposure would be temporary and would not exceed 75 dB(A) L_{eq} . As construction activities associated with the project would comply with the time limits established in Section 10.24.020 (b)(9) of the City Municipal Code, temporary increases in noise levels from construction activities would be less than significant.

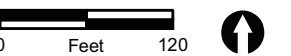
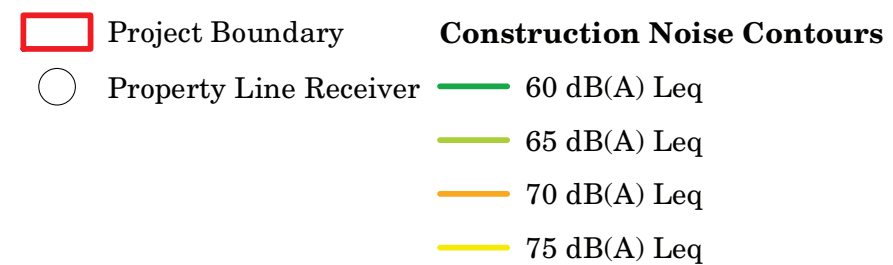


FIGURE 5
Construction Noise Contours and Modeled Receivers

5.2 Traffic Noise

On-site traffic noise contours were developed using the SoundPLAN program. Noise level contours were modeled at the first-floor level. These contours take into account shielding provided by proposed and adjacent buildings and topography. Future vehicle traffic noise-level contours are shown in Figure 6. SoundPLAN data are contained in Attachment 4. As shown in Figure 6, first-floor exterior noise levels are projected to be less than 65 CNEL across the entire project site.

As discussed in Section 2.1, the exterior noise level standard for multi-family uses is 65 CNEL. This standard is applicable at exterior use areas including the turf play areas and the tot lots. The interior noise levels standard for multi-family uses is 45 CNEL. To refine the noise analysis and determine noise levels at exterior use areas and building façades, exterior noise levels were calculated at a series of first- through third-floor specific receiver locations throughout the project site. Modeled receiver locations are shown in Figure 6. Modeled noise levels at the exterior use areas (Receivers 1 through 6) were used to determine compatibility with the City's exterior noise standard of 65 CNEL. Modeled noise levels at the first- through third-floor building façade receivers (Receivers 7 through 37) were used to determine the compatibility with the City's interior noise standard of 45 CNEL. Table 8 summarizes the projected future noise levels at the 37 modeled receivers.

Table 8 Future Vehicle Traffic Noise Levels				
Receiver	Locations	Exterior Noise Level (CNEL)		
		First Floor	Second Floor	Third Floor
1	Exterior Use Area – Turf Play Area	44	--	--
2	Exterior Use Area – Tot Lot	44	--	--
3	Exterior Use Area – Tot Lot	48	--	--
4	Exterior Use Area – Turf Play Area	48	--	--
5	Exterior Use Area – Tot Lot	50	--	--
6	Exterior Use Area – Turf Play Area	43	--	--
7	Phase 2, Building 2 Façade	56	59	59
8	Phase 2, Building 2 Façade	62	63	64
9	Phase 2, Building 2 Façade	62	63	64
10	Phase 2, Building 2 Façade	62	63	64
11	Phase 2, Building 2 Façade	62	63	64
12	Phase 2, Building 2 Façade	62	64	64
13	Phase 2, Buildings 1 and 2 Façade	60	61	62
14	Phase 2, Building 1 Façade	63	64	64
15	Phase 2, Building 1 Façade	63	64	64
16	Phase 2, Building 1 Façade	63	64	64
17	Phase 2, Building 1 Façade	63	64	64
18	Phase 2, Building 1 Façade	63	64	64
19	Phase 2, Building 1 Façade	61	62	62
20	Phase 1, Building 2 Façade	61	62	62
21	Phase 1, Building 2 Façade	62	63	63
22	Phase 1, Building 2 Façade	64	65	65
23	Phase 1, Building 2 Façade	63	65	65
24	Phase 1, Building 2 Façade	63	65	65
25	Phase 1, Building 2 Façade	63	64	64
26	Phase 1, Building 2 Façade	63	64	64

Table 8 Future Vehicle Traffic Noise Levels				
Receiver	Locations	Exterior Noise Level (CNEL)		
		First Floor	Second Floor	Third Floor
27	Phase 1, Building 2 Façade	63	64	64
28	Phase 1, Buildings 1 and 2 Façade	60	61	62
29	Phase 1, Building 1 Façade	63	64	64
30	Phase 1, Building 1 Façade	63	64	64
31	Phase 1, Building 1 Façade	62	64	64
32	Phase 1, Building 1 Façade	62	64	64
33	Phase 1, Building 1 Façade	62	64	64
34	Phase 1, Building 1 Façade	63	64	64
35	Phase 1, Building 1 Façade	59	61	61
36	Phase 1, Building 1 Façade	58	59	59
37	Phase 1, Building 1 Façade	57	58	59
CNEL = community noise equivalent level.				

As shown, exterior noise levels at the exterior use areas (Receivers 1 through 6) are projected to range from 43 to 50 CNEL. This exterior noise level would be compatible with the City's standard of 65 CNEL.

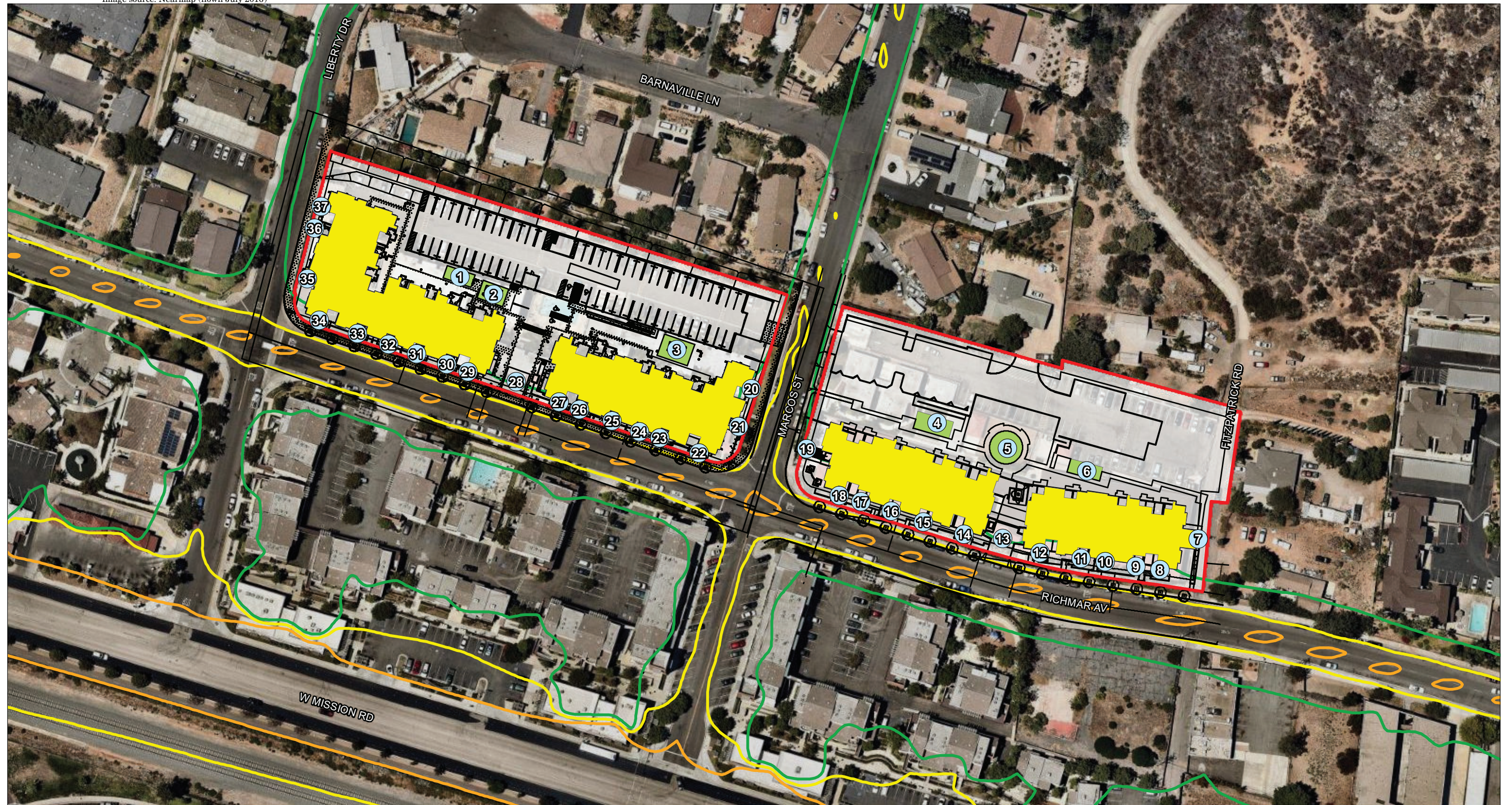
Exterior noise levels at the first- through third-floors of the building façades are projected to range from 56 to 65 CNEL. The interior noise level standard for habitable rooms in residential land uses is 45 CNEL. Standard wood frame construction would achieve an exterior-to-interior noise reduction of 25 dB(A) (FHWA 2011). Thus, because exterior noise levels at the building façades would be 65 CNEL or less, interior noise levels would be 40 CNEL or less in all habitable rooms. Interior noise levels would therefore not exceed the City standard of 45 CNEL.

5.3 On-site Generated Noise

The primary noise sources on-site would be HVAC equipment. HVAC units with exterior condensers mounted on the roofs have the potential to produce noise in excess of City limits (see Table 2). Using the on-site noise source parameters discussed in Section 4.3, noise levels were modeled at a series of 25 receivers located at the property line. Modeled noise levels took into account shielding provided by the three-foot parapet roof walls. HVAC units locations were obtained from the roof plans for the project. Noise generated by HVAC equipment would occur on an intermittent basis, primarily during the day and evening hours and less frequently during the nighttime hours. For a worst-case analysis, it was assumed that the HVAC units would operate continuously.

Modeled receivers and the locations of the HVAC units are shown in Figure 7. Modeled data is included in Attachment 5. Future projected noise levels are summarized in Table 9.

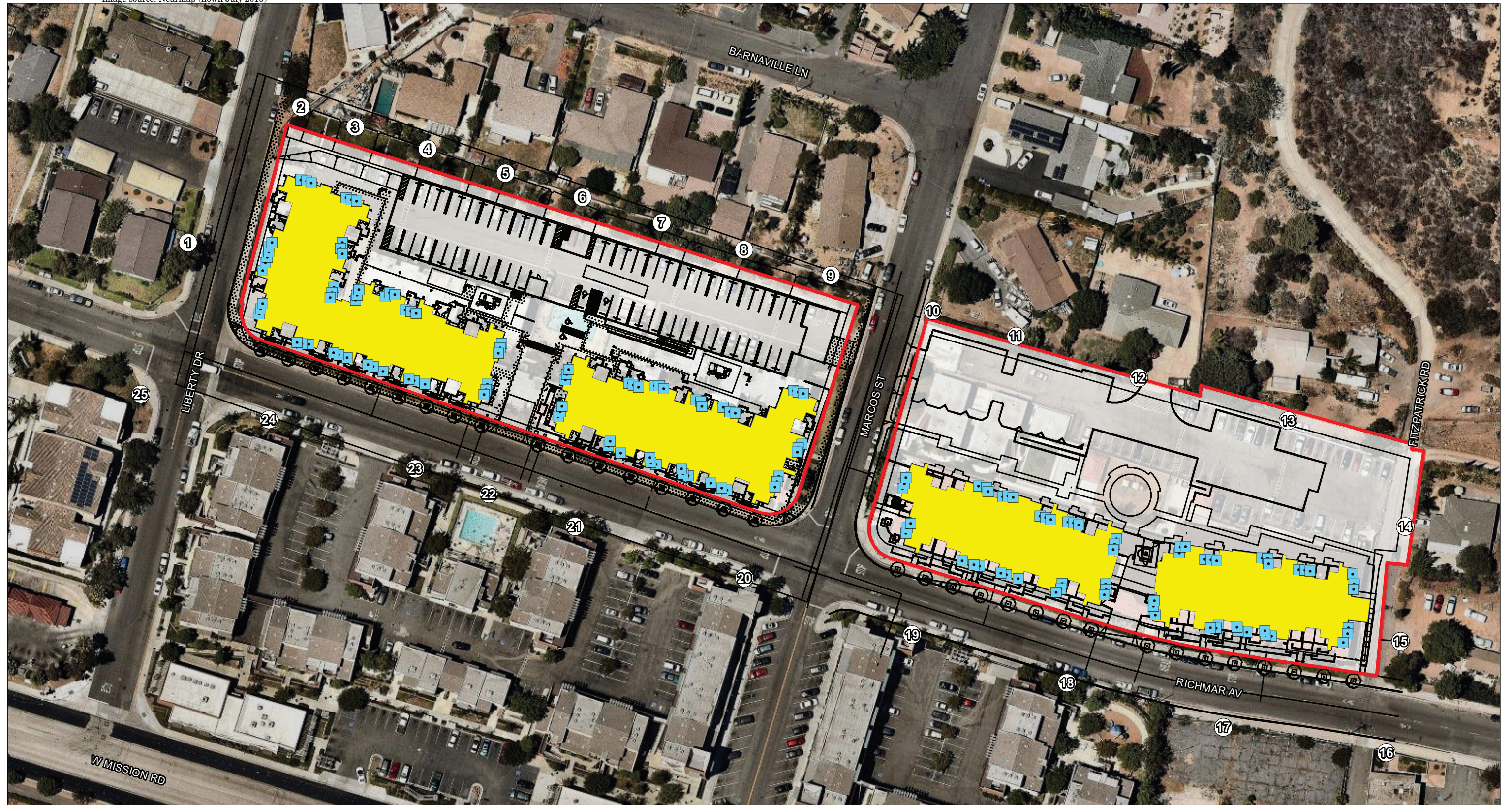
As shown, on-site generated noise levels would range from 35 to 45 dB(A) L_{eq} . Noise levels would not exceed the applicable Noise Ordinance limits at the property lines.



- | | |
|--|--|
| Project Boundary | Future Vehicle Traffic Noise Contours |
| Modeled Receiver | 60 CNEL |
| Site Plan | 65 CNEL |
| Building | 70 CNEL |
| Exterior Use Area | |



FIGURE 6
Future Vehicle Traffic Noise Contours and Modeled Receivers



- Project Boundary
- Site Plan
- HVAC Location
- Building
- Property Line Receiver

FIGURE 7
HVAC Locations and Modeled Receivers

Table 9 HVAC Noise Levels at Adjacent Property Lines	
Receiver	Noise Level [dB(A) L_{eq}]
1	37
2	40
3	42
4	42
5	42
6	42
7	42
8	42
9	42
10	41
11	42
12	42
13	41
14	39
15	35
16	36
17	38
18	40
19	39
20	40
21	40
22	40
23	40
24	39
25	38

6.0 Conclusions and Noise Abatement Measures

6.1 Construction Noise

Construction noise levels would range from 53 to 75 dB(A) L_{eq} at the adjacent property lines. Construction activities would generally occur over the period between 7:00 a.m. and 6:00 p.m. on weekdays. Although the existing adjacent uses would be exposed to construction noise levels that may be heard above ambient conditions, the exposure would be temporary and would not exceed 75 dB(A) L_{eq} . As construction activities associated with the project would comply with Section 10.24.020 (b)(9) of the City Municipal Code, temporary increases in noise levels from construction activities would be less than significant.

6.2 Traffic Noise

The main source of noise at the project site is vehicle traffic on Mission Road, Richmar Avenue, Marcos Street, and Liberty Drive. As calculated in this analysis, exterior noise levels at the exterior use areas (Receivers 1 through 6) are projected to range from 43 to 56 CNEL. This exterior noise level would be compatible with the City's standard of 65 CNEL.

Exterior noise levels at the first- through third-floors of the building façades are projected to range from 56 to 65 CNEL. Standard wood frame construction would achieve an exterior-to-interior noise reduction of 25 dB(A) (FHWA 2011). Thus, because exterior noise levels at the building façades would be 65 CNEL or less, interior noise levels would be 40 CNEL or less in all habitable rooms. Interior noise levels would therefore not exceed the City standard of 45 CNEL.

6.3 On-site Generated Noise

The noise sources on the project site after completion of construction are anticipated to be those that would be typical of any residential complex, such as vehicles arriving and leaving and landscape maintenance machinery. None of these noise sources are anticipated to violate the Municipal Code. Rooftop HVAC noise levels were modeled at the property line adjacent property lines. As shown, on-site generated noise levels would range from 35 to 45 dB(A) L_{eq} . Noise levels would not exceed the applicable Noise Ordinance limits at the property lines.

7.0 References Cited

California Code of Regulations (CCR)

- 2013 *2013 California Building Code, California Code of Regulations, Title 24, Chapter 12 Interior Environment, Section 1207, Sound Transmission*. Effective Date: January 1, 2014.

California Department of Transportation (Caltrans)

- 2013 Technical Noise Supplement. November.

Federal Highway Administration (FHWA)

- 2011 Highway Traffic Noise: Analysis and Abatement Guidance. FHWA-HEP-10-025. December 2011.

Federal Transit Administration (FTA)

- 2006 Transit Noise and Vibration Impact Assessment. Office of Planning and Environment. FTA-VA-90-1003-06. May 2006.

Navcon Engineering, Inc.

- 2015 SoundPLAN Essential version 3.0

RBF Consulting

- 2015 San Marcos Highlands Traffic Impact Analysis Report. Prepared for the City of San Marcos. Final February 17, 2015.

San Diego Association of Governments (SANDAG)

- 2016 Transportation Forecast Information Center. Accessed at <http://tfic.sandag.org/>. October 14, 2016.

San Diego Traffic Engineers' Council/Institute of Transportation Engineers (SANTEC/ITE)

- 2000 Guidelines for Traffic Impact Studies (TIS) in the San Diego Region. March 2, 2000.

San Marcos, City of

- 2012 Draft Environmental Impact Report for the City of San Marcos General Plan. 2012.

ATTACHMENTS

ATTACHMENT 1

Noise Measurement Data

Summary				
Filename	LxT_Data.114			
Serial Number	3827			
Model	SoundExpert™ LxT			
Firmware Version	2.206			
User				
Location				
Job Description				
Note				
Measurement Description				
Start	2016/10/06	11:41:48		
Stop	2016/10/06	11:56:57		
Duration	0:15:09.5			
Run Time	0:15:09.5			
Pause	0:00:00.0			
Pre Calibration	2016/10/06	11:40:08		
Post Calibration	None			
Calibration Deviation	---			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	A Weighting			
Detector	Slow			
Preamp	PRMLxT1L			
Microphone Correction	Off			
Integration Method	Linear			
OBA Range	Normal			
OBA Bandwidth	1/1 and 1/3			
OBA Freq. Weighting	A Weighting			
OBA Max Spectrum	At Lmax			
Overload	121.6 dB			
	A	C	Z	
Under Range Peak	77.9	74.9	79.9 dB	
Under Range Limit	25.9	25.2	31.9 dB	
Noise Floor	16.2	16.0	21.9 dB	
Results				
LAeq	55.0 dB			
LAE	84.6 dB			
EA	32.056 µPa²h			
LAPeak (max)	2016/10/06	11:55:14	88.9 dB	
LASmax	2016/10/06	11:55:15	75.1 dB	
LASmin	2016/10/06	11:43:30	41.0 dB	
SEA	-99.9 dB			
LAS > 85.0 dB (Exceedence Counts / Duration)	0		0.0 s	
LAS > 115.0 dB (Exceedence Counts / Duration)	0		0.0 s	
LAPeak > 135.0 dB (Exceedence Counts / Duration)	0		0.0 s	
LAPeak > 137.0 dB (Exceedence Counts / Duration)	0		0.0 s	
LAPeak > 140.0 dB (Exceedence Counts / Duration)	0		0.0 s	
Community Noise	Ldn	LDay 07:00-22:00		
	55.0	55.0		
LCeq	64.6 dB			
LAeq	55.0 dB			
LCeq - LAeq	9.5 dB			
LAleq	57.5 dB			
LAeq	55.0 dB			
LAleq - LAeq	2.5 dB			
# Overloads	0			
Overload Duration	0.0 s			
# OBA Overloads	0			
OBA Overload Duration	0.0 s			
Statistics				
LAS5.00	59.9 dB			
LAS10.00	56.8 dB			
LAS33.30	49.3 dB			
LAS50.00	47.5 dB			
LAS66.60	46.2 dB			
LAS90.00	43.9 dB			

Summary			
Filename	LxT_Data.115		
Serial Number	3827		
Model	SoundExpert™ LxT		
Firmware Version	2.206		
User			
Location			
Job Description			
Note			
Measurement Description			
Start	2016/10/06 12:05:37		
Stop	2016/10/06 12:20:48		
Duration	0:15:11.1		
Run Time	0:15:11.1		
Pause	0:00:00.0		
Pre Calibration	2016/10/06 12:04:38		
Post Calibration	None		
Calibration Deviation	---		
Overall Settings			
RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamp	PRMLxT1L		
Microphone Correction	Off		
Integration Method	Linear		
OBA Range	Normal		
OBA Bandwidth	1/1 and 1/3		
OBA Freq. Weighting	A Weighting		
OBA Max Spectrum	At Lmax		
Overload	121.6 dB		
	A	C	Z
Under Range Peak	77.8	74.8	79.8 dB
Under Range Limit	25.9	25.2	31.9 dB
Noise Floor	16.2	16.0	21.9 dB
Results			
LAeq	51.2 dB		
LAE	80.8 dB		
EA	13.371 µPa²h		
LApeak (max)	2016/10/06 12:19:15	100.6 dB	
LASmax	2016/10/06 12:19:15	69.7 dB	
LASmin	2016/10/06 12:09:49	41.1 dB	
SEA	-99.9 dB		
LAS > 85.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LAS > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LApeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LApeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LApeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s	
Community Noise	Ldn LDay 07:00-22:00		
	51.2	51.2	
LCeq	62.0 dB		
LAeq	51.2 dB		
LCeq - LAeq	10.8 dB		
LA1eq	58.8 dB		
LAeq	51.2 dB		
LA1eq - LAeq	7.6 dB		
# Overloads	0		
Overload Duration	0.0 s		
# OBA Overloads	0		
OBA Overload Duration	0.0 s		
Statistics			
LAS5.00	57.7 dB		
LAS10.00	54.4 dB		
LAS33.30	47.8 dB		
LAS50.00	45.9 dB		
LAS66.60	44.7 dB		
LAS90.00	42.4 dB		

Summary			
Filename	LxT_Data.116		
Serial Number	3827		
Model	SoundExpert™ LxT		
Firmware Version	2.206		
User			
Location			
Job Description			
Note			
Measurement Description			
Start	2016/10/06 12:27:36		
Stop	2016/10/06 12:42:37		
Duration	0:15:00.8		
Run Time	0:15:00.8		
Pause	0:00:00.0		
Pre Calibration	2016/10/06 12:26:58		
Post Calibration	None		
Calibration Deviation	---		
Overall Settings			
RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamp	PRMLxT1L		
Microphone Correction	Off		
Integration Method	Linear		
OBA Range	Normal		
OBA Bandwidth	1/1 and 1/3		
OBA Freq. Weighting	A Weighting		
OBA Max Spectrum	At Lmax		
Overload	121.5 dB		
	A	C	Z
Under Range Peak	77.7	74.7	79.7 dB
Under Range Limit	25.9	25.1	31.9 dB
Noise Floor	16.2	16.0	21.8 dB
Results			
LAeq	56.8 dB		
LAE	86.4 dB		
EA	48.240 µPa²h		
LApeak (max)	2016/10/06 12:29:50	90.8 dB	
LASmax	2016/10/06 12:28:34	75.3 dB	
LASmin	2016/10/06 12:35:14	42.6 dB	
SEA	-99.9 dB		
LAS > 85.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LAS > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LApeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LApeak > 137.0 dB (Exceedence Counts / Duration)	0	0.0 s	
LApeak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s	
Community Noise	Ldn LDay 07:00-22:00		
	56.8	56.8	
LCeq	68.4 dB		
LAeq	56.8 dB		
LCeq - LAeq	11.6 dB		
LA1eq	59.9 dB		
LAeq	56.8 dB		
LA1eq - LAeq	3.0 dB		
# Overloads	0		
Overload Duration	0.0 s		
# OBA Overloads	0		
OBA Overload Duration	0.0 s		
Statistics			
LAS5.00	62.6 dB		
LAS10.00	59.2 dB		
LAS33.30	50.4 dB		
LAS50.00	47.6 dB		
LAS66.60	46.1 dB		
LAS90.00	44.6 dB		

ATTACHMENT 2

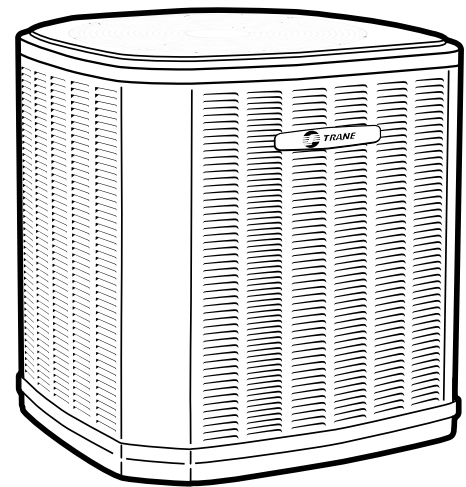
HVAC Example Specifications



Product Data

Split System Cooling

4TTR3018H1000N
4TTR3024H1000N
4TTR3030H1000N
4TTR3036H1000N
4TTR3042E1000N
4TTR3048E1000N
4TTR3060D1000N





Product Specifications

Model No. ^(a)	4TTR3018H1000N	4TTR3024H1000N	4TTR3030H1000N	4TTR3036H1000N
POWER CONNS. — V/PH/HZ ^(b)	208/230/1/60	208/230/1/60	208/230/1/60	208/230/1/60
MIN. BRCH. CIR. AMPACITY	12	17	16	18
BR. CIR. PROT. RTG. — MAX. (AMPS)	20	25	25	30
COMPRESSOR	CLIMATUFF®-SCROLL	CLIMATUFF®-SCROLL	CLIMATUFF®-SCROLL	CLIMATUFF®-SCROLL
RL AMPS — LR AMPS	9 — 48	12.8 — 58.3	12.3 — 63	14.1 — 75
Outdoor Fan FL AMPS	0.64	0.64	0.9	0.7
Fan HP	1/8	1/8	1/8	1/8
Fan Dia (inches)	23.0	23.0	18.9	23.0
Coil	SPINE FIN™	SPINE FIN™	SPINE FIN™	SPINE FIN™
Refrigerant R-410A	5 LBS., 11 OZ	5 LBS., 9 OZ	4 LBS., 10 OZ	4 LBS., 13 OZ
LINE SIZE — IN. O.D. GAS ^(c)	3/4	3/4	3/4	3/4
LINE SIZE — IN. O.D. LIQ. ^(c)	3/8	3/8	3/8	3/8
Charge Spec. Subcooling	10°F	10°F	10°F	10°F
Dimensions H x W x D Crated (IN.)	34 x 30.1 x 33	34 x 30.1 x 33	30 x 27 x 30	34 x 30.1 x 33
Weight — Shipping (lbs.)	167	169	157	175
Weight — Net (lbs.)	140	142	137	147
Optional Accessories:				
Anti-short Cycle Timer	TAYASCT501A	TAYASCT501A	TAYASCT501A	TAYASCT501A
Evaporator Defrost Control	AY28X079	AY28X079	AY28X079	AY28X079
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101	BAYISLT101
Extreme Condition Mount Kit	BAYECMT023	BAYECMT023	BAYECMT023	BAYECMT023
Start Kit	BAYKSKT263	BAYKSKT263	BAYKSKT263	BAYKSKT263
Crankcase Heater Kit	BAYCCHT302	BAYCCHT302	BAYCCHT302	BAYCCHT302
Seacoast Kit	BAYSEAC001	BAYSEAC001	BAYSEAC001	BAYSEAC001
Low Ambient Kit	BAYLOAM103	BAYLOAM103	BAYLOAM103	BAYLOAM103
Refrigerant Lineset ^(d)	TAYREFLN950	TAYREFLN950	TAYREFLN7*	TAYREFLN7*

^(a) Certified in accordance with the Unitary Air-conditioner equipment certification program which is based on AHRI standard 210/240.

^(b) Calculated in accordance with N.E.C. Only use HACR circuit breakers or fuses.

^(c) Standard line lengths — 60', Standard lift — 60' Suction and Liquid line. For Greater lengths and lifts refer to refrigerant piping software Pub#32-3312-0* (* denotes latest revision)..

^(d) * = 15, 20, 25, 30, 40 and 50 foot lineset available.

Product Specifications

Model No. ^(a)	4TTR3042E1000N	4TTR3048E1000N	4TTR3060D1000N
POWER CONNS. — V/PH/HZ ^(b)	280/230/1/60	280/230/1/60	280/230/1/60
MIN. BRCH. CIR. AMPACITY	22	28	35
BR. CIR. PROT. RTG. — MAX. (AMPS)	35	45	60
COMPRESSOR	CLIMATUFF®- SCROLL	CLIMATUFF®- SCROLL	CLIMATUFF®- SCROLL
RL AMPS — LR AMPS	17.0 — 124	21.8 — 117	26.8 — 134
Outdoor Fan FL AMPS	0.7	0.93	0.93
Fan HP	1/8	1/5	1/5
Fan Dia (inches)	23	23	27.5
Coil	SPINE FIN™	SPINE FIN™	SPINE FIN™
Refrigerant R-410A	5 LBS., 8 OZ	6 LBS., 7 OZ	8 LBS., 0 OZ
LINE SIZE — IN. O.D. GAS ^(c)	7/8	7/8	7/8
LINE SIZE — IN. O.D. LIQ. ^(c)	3/8	3/8	3/8
Charge Spec. Subcooling	10°F	10°F	10°F
Dimensions H x W X D Crated (IN.)	34 x 30.1 x 33	42 x 30.1 x 33	42.4 x 35.1 x 38.7
Weight — Shipping (lbs.)	200	233	261
Weight — Net (lbs.)	172	197	226
Optional Accessories:			
Anti-short Cycle Timer	TAYASCT501A	TAYASCT501A	TAYASCT501A
Evaporator Defrost Control	AY28X079	AY28X079	AY28X079
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101
Extreme Condition Mount Kit	BAYECMT004	BAYECMT004	BAYECMT004
Start Kit	BAYKSKT263	BAYKSKT263	BAYKSKT263
Crankcase Heater Kit	BAYCCHT301	BAYCCHT301	BAYCCHT301
Seacoast Kit	BAYSEAC001	BAYSEAC001	BAYSEAC001
Low Ambient Kit	BAYLOAM103	BAYLOAM103	BAYLOAM103
Refrigerant Lineset ^(d)	TAYREFLN7*	TAYREFLN3*	TAYREFLN3*

(a) Certified in accordance with the Unitary Air-conditioner equipment certification program which is based on AHRI standard 210/240.

(b) Calculated in accordance with N.E.C. Only use HACR circuit breakers or fuses.

(c) Standard line lengths — 60', Standard lift — 60' Suction and Liquid line. For Greater lengths and lifts refer to refrigerant piping software Pub#32-3312-0* (* denotes latest revision)..

(d) * = 15, 20, 25, 30, 40 and 50 foot lineset available.

Sound Power Level

MODEL	A-Weighted Sound Power Level [dB(A)]	Full Octave Sound Power(dB)							
		63 Hz*	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
4TTR3018H1	72	73.7	71.4	65.4	68	67.3	62.9	56	50.3
4TTR3024H1	74	47.9	60.5	64.1	71.2	71.2	69.0	58.2	51.5
4TTR3030H1	72	69.9	69.6	69.1	68.6	68.7	60.9	56.2	48.9
4TTR3036H1	68	74.7	65.0	65.2	66.4	63.6	58.7	56.3	52.8
4TTR3042E1	72	77.6	68.3	67.4	65.6	67.4	58.2	54.1	47.6
4TTR3048E1	74	72.5	72.3	69.2	67.5	72.3	60.2	55.2	54.2
4TTR3060D1	80	47.3	55.7	69	72.7	75.8	69.4	62.2	53.3

Note: Rated in accordance with
AHRI Standard 270-2008

*For Reference Only



Accessory Description and Usage

Anti-Short Cycle Timer — Solid state timing device that prevents compressor recycling until five (5) minutes have elapsed after satisfying call or power interruptions. Use in area with questionable power delivery, commercial applications, long lineset, etc.

Evaporation Defrost Control — SPST Temperature actuated switch that cycles the condenser off as indoor coil reaches freeze-up conditions. Used for low ambient cooling to 30°F with TXV.

Rubber Isolators — Five (5) large rubber donuts to isolate condensing unit from transmitting energy into mounting frame or pad. Use on any application where sound transmission needs to be minimized.

Hard Start Kit — Start capacitor and relay to assist compressor motor startup. Use in areas with marginal power supply, on long linesets, low ambient conditions, etc.

Extreme Condition Mount Kit — Bracket kits to securely mount condensing unit to a frame or pad without removing any panels. Use in areas with high winds, or on commercial roof tops, etc.

AHRI Standard Capacity Rating Conditions

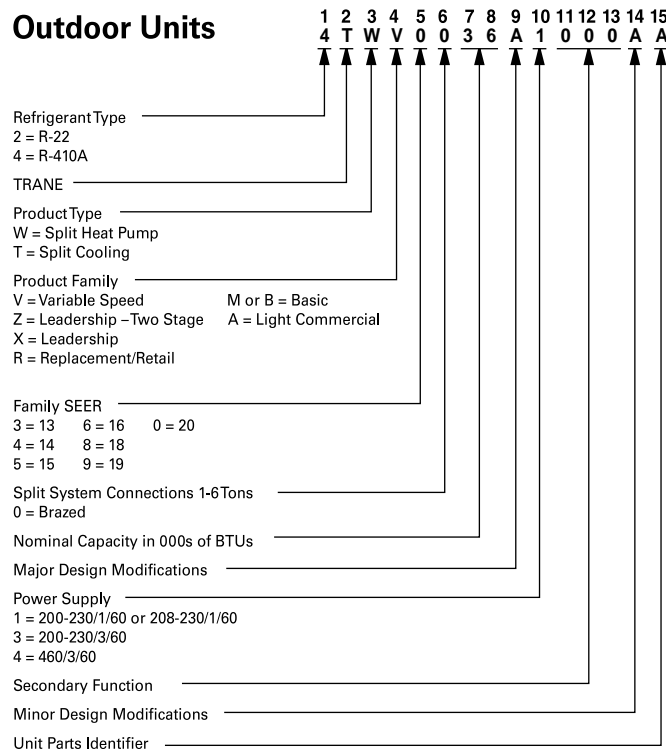
AHRI Standard 210/240 Rating Conditions

1. Cooling 80°F DB, 67°F WB air entering indoor coil, 95°F DB air entering outdoor coil.
2. High Temperature Heating 47°F DB, 43°F WB air entering outdoor coil, 70°F DB air entering indoor coil.
3. Low Temperature Heating 17°F DB air entering indoor coil.
4. Rated indoor airflow for heating is the same as for cooling.

AHRI Standard 270 Rating Conditions — (Noise rating numbers are determined with the unit in cooling operations.) Standard Noise Rating number is at 95°F outdoor air.

Model Nomenclature

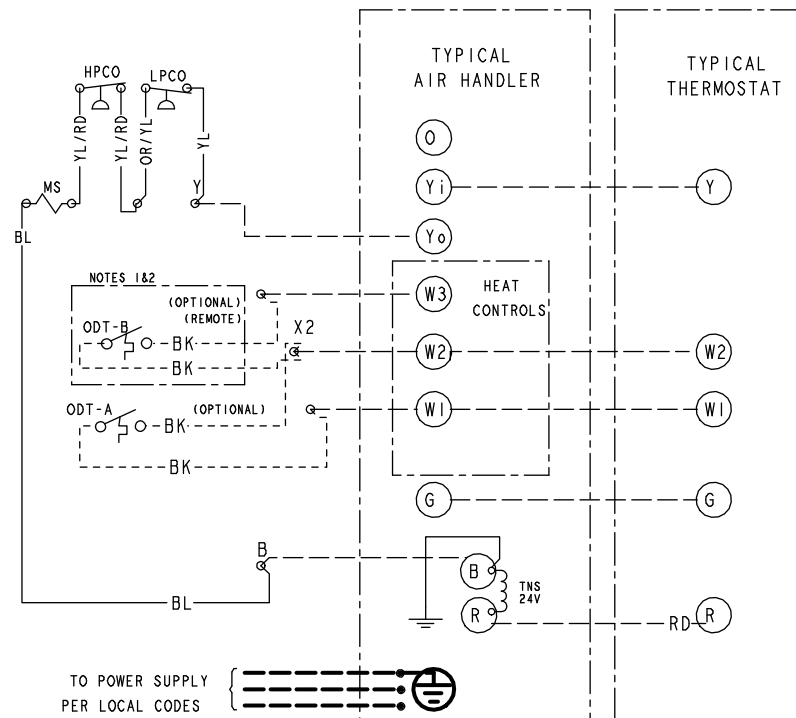
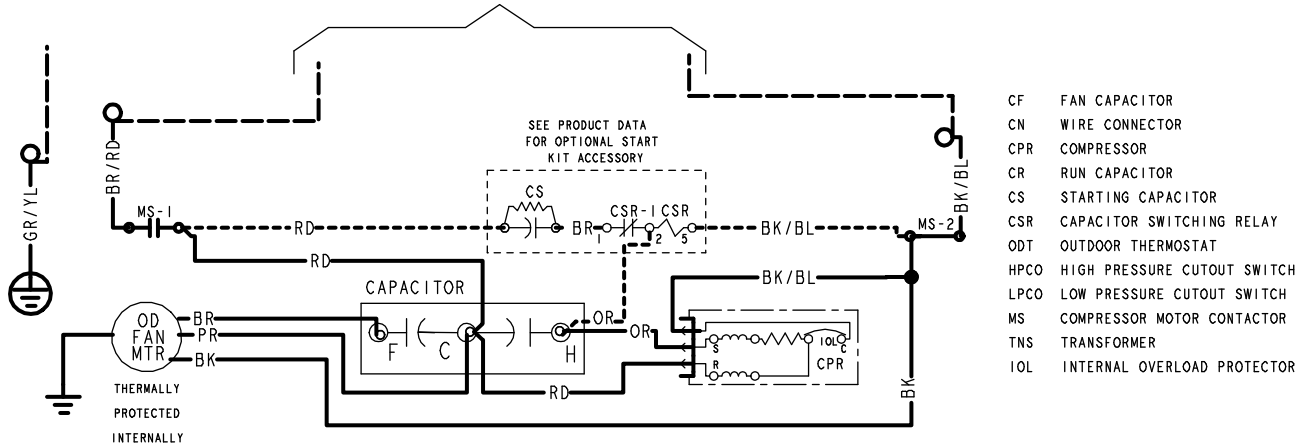
Outdoor Units



Schematic Diagrams

Figure 1. 1.5 — 4.0 Ton Models

TO POWER SUPPLY PER UNIT NAMEPLATE AND LOCAL CODES



⚠ WARNING

HAZARDOUS VOLTAGE!
 DISCONNECT ALL ELECTRICAL POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING.
 Failure to disconnect power before servicing can cause severe personal injury or death.

⚠ CAUTION

USE COPPER CONDUCTORS ONLY! UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS. Failure to do so may cause damage to the equipment.

COLOR OF WIRE
 BK/BL
 COLOR OF MARKER

BK BLACK RD RED OR ORANGE
 BL BLUE WH WHITE GR GREEN
 BR BROWN YL YELLOW PR PURPLE
 PK PINK

NOTES:

1. IF ODT-B IS NOT USED, ADD JUMPER BETWEEN W2 & W3 AT AIR HANDLER. IF USED, ODT-B MUST BE MOUNTED REMOTE OF CONTROL BOX IN AN APPROVED WEATHER PROOF ENCLOSURE.
2. IF ODT-A IS NOT USED, ADD JUMPER BETWEEN W1 & W2 AT AIR HANDLER.
3. LOW VOLTAGE (24 V) FIELD WIRING MUST BE 18 AWG MINIMUM.
4. USE COPPER CONDUCTORS ONLY!

FOR CANADIAN INSTALLATIONS
 POUR INSTALLATIONS CANADIENNES

CAUTION: NOT SUITABLE FOR USE ON SYSTEMS EXCEEDING 150V-TO-GROUND
 ATTENTION: NE CONVIENT PAS AUX INSTALLATIONS DE PLUS DE 150 V A LA TERRE

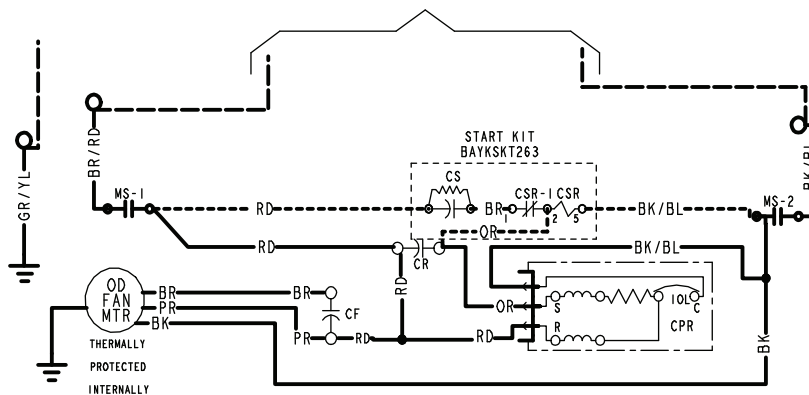
PRINTED FROM DI57047P03 REVA



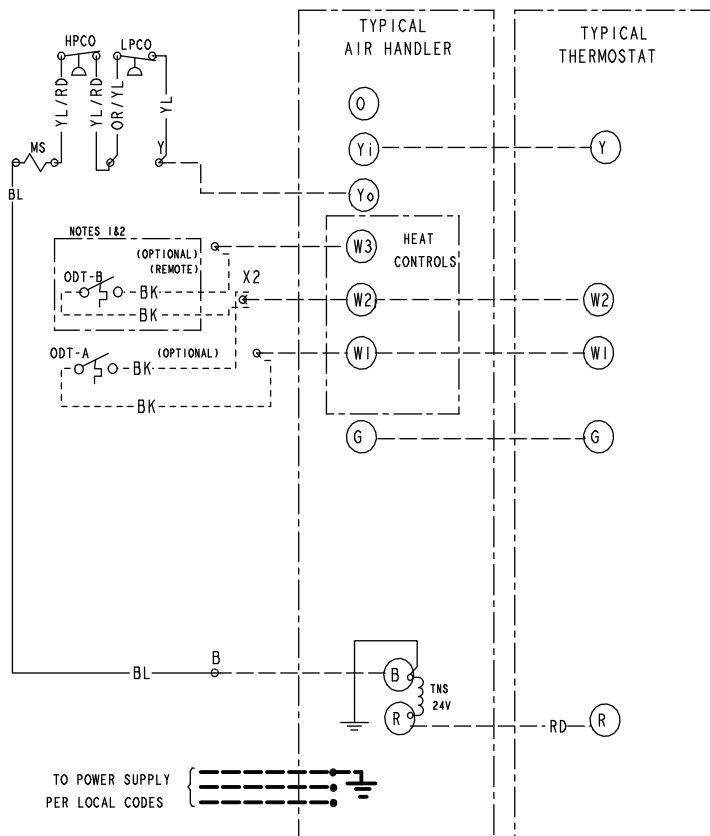
Schematic Diagrams

Figure 2. 5.0 Ton Models

TO POWER SUPPLY PER UNIT NAMEPLATE AND LOCAL CODES



CF FAN CAPACITOR
CN WIRECONNECTOR
CPR COMPRESSOR
CR RUN CAPACITOR
CS STARTING CAPACITOR
CSR CAPACITOR SWITCHING RELAY
F INDOOR FAN RELAY
HPCO HIGH PRESSURE CUTOOUT SWITCH
LPCO LOW PRESSURE CUTOOUT SWITCH
IOL INTERNAL OVERLOAD PROTECTOR
SN SYSTEM ON-OFF SWITCH
MS COMPRESSOR MOTOR CONTACTOR
ODA OUTDOOR ANTICIPATOR
OFT OUTDOOR FAN THERMOSTAT
ODS OUTDOOR TEMPERATURE SENSOR
ODT OUTDOOR THERMOSTAT
SC SWITCH OVER VALVE SOLENOID
TDL DISCHARGE LINE THERMOSTAT
TNS TRANSFORMER



COLOR OF WIRE
BK/BL
COLOR OF MARKER

BK BLACK RD RED OR ORANGE
BL BLUE WH WHITE GR GREEN
BR BROWN YL YELLOW PR PURPLE
PK PINK

WARNING

HAZARDOUS VOLTAGE!

DISCONNECT ALL ELECTRICAL POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING.

Failure to disconnect power before servicing can cause severe personal injury or death.

CAUTION

USE COPPER CONDUCTORS ONLY!

UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS.

Failure to do so may cause damage to the equipment.

NOTES:

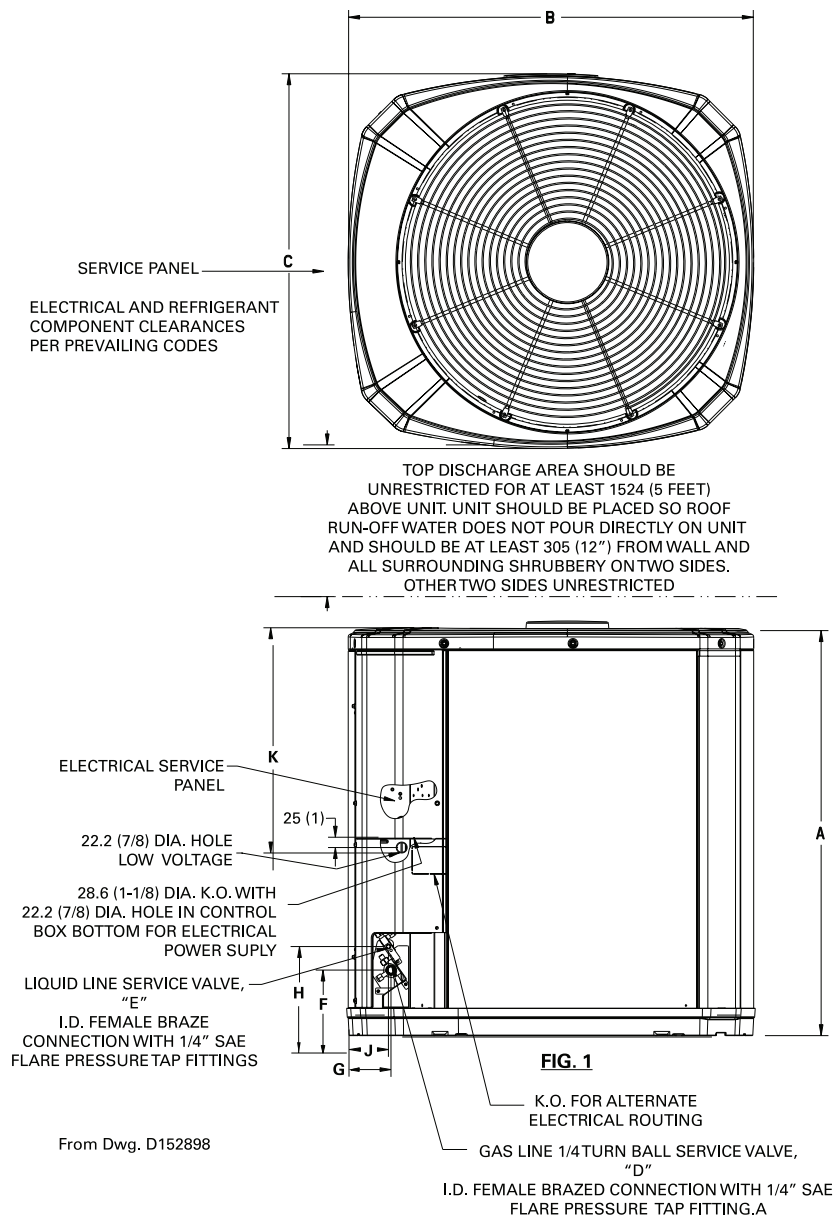
1. IF ODT-B IS NOT USED, ADD JUMPER BETWEEN W2 & W3 AT AIR HANDLER. IF USED, ODT-B MUST BE MOUNTED REMOTE OF CONTROL BOX IN AN APPROVED WEATHER PROOF ENCLOSURE.
2. IF ODT-A IS NOT USED, ADD JUMPER BETWEEN W1 & W2 AT AIR HANDLER.
3. LOW VOLTAGE (24 V) FIELD WIRING MUST BE 18 AWG MIN.

FOR CANADIAN INSTALLATIONS
POUR INSTALLATIONS CANADIENNES

CAUTION: NOT SUITABLE FOR USE ON SYSTEMS EXCEEDING 150V-TO-GROUND
ATTENTION: NE CONVIENT PAS AUX INSTALLATIONS DE PLUS DE 150 V A LA TERRE

PRINTED FROM D157048P01

Outline Drawing



Model	Base	A	B	C	D	E	F	G	H	J	K
4TTR3018H	2	730 (28-3/4)	724 (28-1/2)	651 (25-5/8)	3/4	3/8	127 (5)	57 (2-1/4)	194 (7-5/8)	38 (1-1/2)	457 (18)
4TTR3024H	2	730 (28-3/4)	724 (28-1/2)	651 (25-5/8)	3/4	3/8	137 (5-3/8)	65 (2-5/8)	210 (8-1/4)	57 (2-1/4)	457 (18)
4TTR3030H	2	730 (28-3/4)	724 (28-1/2)	651 (25-5/8)	3/4	3/8	137 (5-3/8)	65 (2-5/8)	210 (8-1/4)	57 (2-1/4)	457 (18)
4TTR3036H	3	730 (28-3/4)	829 (32-5/8)	756 (29-3/4)	3/4	3/8	137 (5-3/8)	79 (3-1/8)	197 (7-3/4)	60 (2-3/8)	508 (20)
4TTR3042E	3	730 (28-3/4)	829 (32-5/8)	756 (29-3/4)	7/8	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
4TTR3048E	3	730 (28-3/4)	933 (36-3/4)	756 (29-3/4)	7/8	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
4TTR3060D	4	943 (37-1/8)	946 (37-1/4)	870 (34-1/4)	7/8	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)



Mechanical Specification Options

General

The Outdoor Units are fully charged from the factory for up to 15 feet of piping. This unit is designed to operate at outdoor ambient temperatures as high as 115°F. Cooling capacities are matched with a wide selection of air handlers and furnace coils that are AHRI certified. The unit is certified to UL 1995. Exterior is designed for outdoor application.

Casing

Unit casing is constructed of heavy gauge, galvanized steel and painted with a weather-resistant powder paint finish on all louvered panels and the fan top panel. The corner panels are prepainted. All panels are subjected to our 1,000 hour salt spray test. The base is made of a CMBP-G30 weatherproof material to resist corrosion.

Refrigerant Controls

Refrigeration system controls include condenser fan, compressor contactor and high pressure switch. High and low pressure controls are inherent to the compressor. A factory supplied liquid line drier is standard. Some models may require field installation.

Compressor

The compressor features internal over temperature, pressure protection and total dipped hermetic motor. Other features include: Centrifugal oil pump and low vibration and noise.

Condenser Coil

The outdoor coil provides low airflow resistance and efficient heat transfer. The coil is protected on all four sides by louvered panels.

Low Ambient Cooling

As manufactured, this system has a cooling capacity to 55°F. The addition of an evaporator defrost control permits operation to 40°F. The addition of an evaporator defrost control with TXV permits low ambient cooling to 30°F.

Thermostats—Cooling only and heat/cooling (manual and automatic change over). Sub-base to match thermostat and locking thermostat cover.

Evaporator Defrost Control — See Low Ambient Cooling.



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Ingersoll Rand has a policy of continuous product and product data improvements and reserves the right to change design and specifications without notice.

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22-1842-8D-EN 25 Aug 2016

Supersedes 22-1842-8C-EN (February 2015)



ATTACHMENT 3

SoundPLAN Data – Construction Noise

8458 Villa Serena
SoundPLAN Data - Construction

Source name	Reference	Level	Corrections		
		Leq1 dB(A)	Kwall dB(A)	CI dB(A)	CT dB(A)
Construction Phase 1	Unit	114	-	-	-
Construction Phase 2	Unit	114	-	-	-

8458 Villa Serena
SoundPLAN Data - Construction

No.	Receiver name	Building side	Floor	Limit Leq1 dB(A)	Level w/o NP Leq1 dB(A)	Level w. NI Leq1 dB(A)	Difference Leq1 dB(A)	Conflict Leq1 dB(A)
1	1		1.Fl	-	67.9	0	-67.9	-
2	2.0		1.Fl	-	69.5	0	-69.5	-
3	3.0		1.Fl	-	71.8	0	-71.8	-
4	4.0		1.Fl	-	72.5	0	-72.5	-
5	5.0		1.Fl	-	72.7	0	-72.7	-
6	6.0		1.Fl	-	72.9	0	-72.9	-
7	7.0		1.Fl	-	73.0	0	-73.0	-
8	8.0		1.Fl	-	73.2	0	-73.2	-
9	9.0		1.Fl	-	72.4	0	-72.4	-
10	10.0		1.Fl	-	71.5	0	-71.5	-
11	11.0		1.Fl	-	73.3	0	-73.3	-
12	12.0		1.Fl	-	74.3	0	-74.3	-
13	13.0		1.Fl	-	75.6	0	-75.6	-
14	14.0		1.Fl	-	74.9	0	-74.9	-
15	15.0		1.Fl	-	70.5	0	-70.5	-
16	16.0		1.Fl	-	65.5	0	-65.5	-
17	17.0		1.Fl	-	69.0	0	-69.0	-
18	18.0		1.Fl	-	70.2	0	-70.2	-
19	19.0		1.Fl	-	69.8	0	-69.8	-
20	20.0		1.Fl	-	69.1	0	-69.1	-
21	21.0		1.Fl	-	69.5	0	-69.5	-
22	22.0		1.Fl	-	69.7	0	-69.7	-
23	23.0		1.Fl	-	69.6	0	-69.6	-
24	24.0		1.Fl	-	68.3	0	-68.3	-
25	25.0		1.Fl	-	63.9	0	-63.9	-

8458 Villa Serena
SoundPLAN Data - Construction

Source name			Level w/o NP	Level w. NP
			Leq1	Leq1
			dB(A)	dB(A)
1	1.Fl	67.9	0.0	
Construction Phase 1			67.8	0
Construction Phase 2			53.1	0
2	1.Fl	69.5	0.0	
Construction Phase 1			69.4	0
Construction Phase 2			53.7	0
3	1.Fl	71.8	0.0	
Construction Phase 1			71.7	0
Construction Phase 2			54.4	0
4	1.Fl	72.5	0.0	
Construction Phase 1			72.4	0
Construction Phase 2			55.4	0
5	1.Fl	72.7	0.0	
Construction Phase 1			72.6	0
Construction Phase 2			56.5	0
6	1.Fl	72.9	0.0	
Construction Phase 1			72.8	0
Construction Phase 2			57.7	0
7	1.Fl	73.0	0.0	
Construction Phase 1			72.9	0
Construction Phase 2			59.3	0
8	1.Fl	73.2	0.0	
Construction Phase 1			72.9	0
Construction Phase 2			61.3	0
9	1.Fl	72.4	0.0	
Construction Phase 1			71.7	0
Construction Phase 2			64.2	0
10	1.Fl	71.5	0.0	
Construction Phase 1			66.2	0
Construction Phase 2			70.0	0
11	1.Fl	73.3	0.0	
Construction Phase 1			62.5	0
Construction Phase 2			72.9	0
12	1.Fl	74.3	0.0	
Construction Phase 1			59.1	0
Construction Phase 2			74.2	0
13	1.Fl	75.6	0.0	
Construction Phase 1			56.2	0
Construction Phase 2			75.5	0
14	1.Fl	74.9	0.0	
Construction Phase 1			54.4	0
Construction Phase 2			74.9	0
15	1.Fl	70.5	0.0	
Construction Phase 1			54.0	0
Construction Phase 2			70.4	0
16	1.Fl	65.5	0.0	
Construction Phase 1			53.7	0
Construction Phase 2			65.2	0
17	1.Fl	69.0	0.0	
Construction Phase 1			55.7	0
Construction Phase 2			68.8	0
18	1.Fl	70.2	0.0	
Construction Phase 1			58.3	0
Construction Phase 2			70.0	0
19	1.Fl	69.8	0.0	
Construction Phase 1			61.7	0
Construction Phase 2			69.0	0
20	1.Fl	69.1	0.0	
Construction Phase 1			67.7	0
Construction Phase 2			63.4	0
21	1.Fl	69.5	0.0	
Construction Phase 1			69.1	0
Construction Phase 2			59.1	0
22	1.Fl	69.7	0.0	
Construction Phase 1			69.4	0
Construction Phase 2			57.5	0
23	1.Fl	69.6	0.0	
Construction Phase 1			69.4	0
Construction Phase 2			56.3	0
24	1.Fl	68.3	0.0	
Construction Phase 1			68.2	0
Construction Phase 2			54.4	0
25	1.Fl	63.9	0.0	
Construction Phase 1			63.5	0
Construction Phase 2			53.0	0

ATTACHMENT 4

SoundPLAN Data – Traffic Noise

8458 Villa Serena
SoundPLAN Data - Traffic

Stationing km	ADT Veh/24h	Traffic values Vehicles type	Vehicle name	day Veh/h	Speed km/h	Control device	Constr. Speed km/h	Affect. veh. %	Road surface	Gradient Min / Max %
Liberty Drive		Traffic direction:	In entry direction							
0+000	3648	Total	-	152	-	none	-	-	Average (of DGAC and PCC)	2.1 / 9.0
0+000	3648	Automobiles	-	142	40	none	-	-	Average (of DGAC and PCC)	2.1 / 9.0
0+000	3648	Medium trucks	-	5	40	none	-	-	Average (of DGAC and PCC)	2.1 / 9.0
0+000	3648	Heavy trucks	-	2	40	none	-	-	Average (of DGAC and PCC)	2.1 / 9.0
0+000	3648	Buses	-	2	40	none	-	-	Average (of DGAC and PCC)	2.1 / 9.0
0+000	3648	Motorcycles	-	1	40	none	-	-	Average (of DGAC and PCC)	2.1 / 9.0
0+000	3648	Auxiliary Vehicle	-	-	-	none	-	-	Average (of DGAC and PCC)	2.1 / 9.0
0+310	-					-	-	-	-	-
Marcos Street		Traffic direction:	In entry direction							
0+000	12240	Total	-	510	-	none	-	-	Average (of DGAC and PCC)	1.3 / 4.8
0+000	12240	Automobiles	-	482	40	none	-	-	Average (of DGAC and PCC)	1.3 / 4.8
0+000	12240	Medium trucks	-	15	40	none	-	-	Average (of DGAC and PCC)	1.3 / 4.8
0+000	12240	Heavy trucks	-	5	40	none	-	-	Average (of DGAC and PCC)	1.3 / 4.8
0+000	12240	Buses	-	5	40	none	-	-	Average (of DGAC and PCC)	1.3 / 4.8
0+000	12240	Motorcycles	-	3	40	none	-	-	Average (of DGAC and PCC)	1.3 / 4.8
0+000	12240	Auxiliary Vehicle	-	-	-	none	-	-	Average (of DGAC and PCC)	1.3 / 4.8
0+293	-					-	-	-	-	-
Mission Road WB		Traffic direction:	In entry direction							
0+000	38400	Total	-	1600	-	none	-	-	Average (of DGAC and PCC)	-0.739130435
0+000	38400	Automobiles	-	1512	72	none	-	-	Average (of DGAC and PCC)	-0.739130435
0+000	38400	Medium trucks	-	48	72	none	-	-	Average (of DGAC and PCC)	-0.739130435
0+000	38400	Heavy trucks	-	16	72	none	-	-	Average (of DGAC and PCC)	-0.739130435
0+000	38400	Buses	-	16	72	none	-	-	Average (of DGAC and PCC)	-0.739130435
0+000	38400	Motorcycles	-	8	72	none	-	-	Average (of DGAC and PCC)	-0.739130435
0+000	38400	Auxiliary Vehicle	-	-	-	none	-	-	Average (of DGAC and PCC)	-0.739130435
0+803	-					-	-	-	-	-
Mission Road EB		Traffic direction:	In entry direction							
0+000	38400	Total	-	1600	-	none	-	-	Average (of DGAC and PCC)	-2.857142857
0+000	38400	Automobiles	-	1512	72	none	-	-	Average (of DGAC and PCC)	-2.857142857
0+000	38400	Medium trucks	-	48	72	none	-	-	Average (of DGAC and PCC)	-2.857142857
0+000	38400	Heavy trucks	-	16	72	none	-	-	Average (of DGAC and PCC)	-2.857142857
0+000	38400	Buses	-	16	72	none	-	-	Average (of DGAC and PCC)	-2.857142857
0+000	38400	Motorcycles	-	8	72	none	-	-	Average (of DGAC and PCC)	-2.857142857
0+000	38400	Auxiliary Vehicle	-	-	-	none	-	-	Average (of DGAC and PCC)	-2.857142857
0+800	-					-	-	-	-	-
Richmar Avenue		Traffic direction:	In entry direction							
0+000	15336	Total	-	639	-	none	-	-	Average (of DGAC and PCC)	-1.571428571
0+000	15336	Automobiles	-	605	56	none	-	-	Average (of DGAC and PCC)	-1.571428571
0+000	15336	Medium trucks	-	19	56	none	-	-	Average (of DGAC and PCC)	-1.571428571
0+000	15336	Heavy trucks	-	6	56	none	-	-	Average (of DGAC and PCC)	-1.571428571
0+000	15336	Buses	-	6	56	none	-	-	Average (of DGAC and PCC)	-1.571428571
0+000	15336	Motorcycles	-	3	56	none	-	-	Average (of DGAC and PCC)	-1.571428571
0+000	15336	Auxiliary Vehicle	-	-	-	none	-	-	Average (of DGAC and PCC)	-1.571428571
0+819	-					-	-	-	-	-

8458 Villa Serena
SoundPLAN Data - Traffic

No.	Receiver name	Building side	Floor	Limit L(Aeq1h) dB(A)	Level w/o NP L(Aeq1h) dB(A)	Level w. NP L(Aeq1h) dB(A)	Difference L(Aeq1h) dB(A)	Conflict L(Aeq1h) dB(A)
1	1		1.Fl	-	43.6	0	-43.6	-
1	1		2.Fl	-	44.7	0	-44.7	-
1	1		3.Fl	-	46.0	0	-46.0	-
2	2		1.Fl	-	44.4	0	-44.4	-
2	2		2.Fl	-	45.5	0	-45.5	-
2	2		3.Fl	-	46.7	0	-46.7	-
3	3		1.Fl	-	47.8	0	-47.8	-
3	3		2.Fl	-	49.2	0	-49.2	-
3	3		3.Fl	-	50.5	0	-50.5	-
4	4		1.Fl	-	47.8	0	-47.8	-
4	4		2.Fl	-	49.1	0	-49.1	-
4	4		3.Fl	-	50.7	0	-50.7	-
5	5		1.Fl	-	49.9	0	-49.9	-
5	5		2.Fl	-	51.6	0	-51.6	-
5	5		3.Fl	-	52.7	0	-52.7	-
6	6		1.Fl	-	42.6	0	-42.6	-
6	6		2.Fl	-	43.9	0	-43.9	-
6	6		3.Fl	-	45.5	0	-45.5	-
7	7		1.Fl	-	56.3	0	-56.3	-
7	7		2.Fl	-	58.5	0	-58.5	-
7	7		3.Fl	-	59.2	0	-59.2	-
8	8		1.Fl	-	61.5	0	-61.5	-
8	8		2.Fl	-	63.1	0	-63.1	-
8	8		3.Fl	-	63.6	0	-63.6	-
9	9		1.Fl	-	61.5	0	-61.5	-
9	9		2.Fl	-	63.1	0	-63.1	-
9	9		3.Fl	-	63.6	0	-63.6	-
10	10		1.Fl	-	61.6	0	-61.6	-
10	10		2.Fl	-	63.2	0	-63.2	-
10	10		3.Fl	-	63.7	0	-63.7	-
11	11		1.Fl	-	61.8	0	-61.8	-
11	11		2.Fl	-	63.4	0	-63.4	-
11	11		3.Fl	-	63.8	0	-63.8	-
12	12		1.Fl	-	62.4	0	-62.4	-
12	12		2.Fl	-	63.9	0	-63.9	-
12	12		3.Fl	-	64.0	0	-64.0	-
13	13		1.Fl	-	59.8	0	-59.8	-
13	13		2.Fl	-	61.3	0	-61.3	-
13	13		3.Fl	-	61.6	0	-61.6	-
14	14		1.Fl	-	62.6	0	-62.6	-
14	14		2.Fl	-	63.8	0	-63.8	-
14	14		3.Fl	-	63.9	0	-63.9	-
15	15		1.Fl	-	62.9	0	-62.9	-
15	15		2.Fl	-	63.9	0	-63.9	-
15	15		3.Fl	-	64.1	0	-64.1	-
16	16		1.Fl	-	63.0	0	-63.0	-
16	16		2.Fl	-	63.9	0	-63.9	-
16	16		3.Fl	-	64.2	0	-64.2	-
17	17		1.Fl	-	63.1	0	-63.1	-
17	17		2.Fl	-	64.1	0	-64.1	-
17	17		3.Fl	-	64.3	0	-64.3	-
18	18		1.Fl	-	63.3	0	-63.3	-
18	18		2.Fl	-	64.2	0	-64.2	-
18	18		3.Fl	-	64.4	0	-64.4	-
19	19		1.Fl	-	60.8	0	-60.8	-

8458 Villa Serena
SoundPLAN Data - Traffic

19	19	2.Fl	-	62.2	0	-62.2	-
19	19	3.Fl	-	62.4	0	-62.4	-
20	20	1.Fl	-	60.9	0	-60.9	-
20	20	2.Fl	-	62.1	0	-62.1	-
20	20	3.Fl	-	62.1	0	-62.1	-
21	21	1.Fl	-	61.5	0	-61.5	-
21	21	2.Fl	-	62.9	0	-62.9	-
21	21	3.Fl	-	63.0	0	-63.0	-
22	22	1.Fl	-	63.8	0	-63.8	-
22	22	2.Fl	-	65.0	0	-65.0	-
22	22	3.Fl	-	65.0	0	-65.0	-
23	23	1.Fl	-	63.3	0	-63.3	-
23	23	2.Fl	-	64.6	0	-64.6	-
23	23	3.Fl	-	64.6	0	-64.6	-
24	24	1.Fl	-	63.2	0	-63.2	-
24	24	2.Fl	-	64.5	0	-64.5	-
24	24	3.Fl	-	64.5	0	-64.5	-
25	25	1.Fl	-	62.9	0	-62.9	-
25	25	2.Fl	-	64.3	0	-64.3	-
25	25	3.Fl	-	64.3	0	-64.3	-
26	26	1.Fl	-	62.7	0	-62.7	-
26	26	2.Fl	-	64.1	0	-64.1	-
26	26	3.Fl	-	64.1	0	-64.1	-
27	27	1.Fl	-	62.6	0	-62.6	-
27	27	2.Fl	-	64.0	0	-64.0	-
27	27	3.Fl	-	64.1	0	-64.1	-
28	28	1.Fl	-	59.7	0	-59.7	-
28	28	2.Fl	-	61.2	0	-61.2	-
28	28	3.Fl	-	61.5	0	-61.5	-
29	29	1.Fl	-	62.6	0	-62.6	-
29	29	2.Fl	-	64.0	0	-64.0	-
29	29	3.Fl	-	64.1	0	-64.1	-
30	30	1.Fl	-	62.5	0	-62.5	-
30	30	2.Fl	-	63.9	0	-63.9	-
30	30	3.Fl	-	64.0	0	-64.0	-
31	31	1.Fl	-	62.4	0	-62.4	-
31	31	2.Fl	-	63.8	0	-63.8	-
31	31	3.Fl	-	63.9	0	-63.9	-
32	32	1.Fl	-	62.4	0	-62.4	-
32	32	2.Fl	-	63.8	0	-63.8	-
32	32	3.Fl	-	63.9	0	-63.9	-
33	33	1.Fl	-	62.4	0	-62.4	-
33	33	2.Fl	-	63.8	0	-63.8	-
33	33	3.Fl	-	63.9	0	-63.9	-
34	34	1.Fl	-	62.6	0	-62.6	-
34	34	2.Fl	-	64.0	0	-64.0	-
34	34	3.Fl	-	64.2	0	-64.2	-
35	35	1.Fl	-	59.0	0	-59.0	-
35	35	2.Fl	-	60.8	0	-60.8	-
35	35	3.Fl	-	61.1	0	-61.1	-
36	36	1.Fl	-	57.5	0	-57.5	-
36	36	2.Fl	-	58.7	0	-58.7	-
36	36	3.Fl	-	59.2	0	-59.2	-
37	37	1.Fl	-	57.0	0	-57.0	-
37	37	2.Fl	-	58.2	0	-58.2	-
37	37	3.Fl	-	58.7	0	-58.7	-

Receivers

8458 Villa Serena
SoundPLAN Data - Traffic

Source name				Level w/o NP	Level w. NP
Lane				L(Aeq1h)	L(Aeq1h)
				dB(A)	dB(A)
1	1.Fl	43.6	0.0		
	Liberty Drive			38.1	0
	Marcos Street			40.9	0
	Mission Road EB			30.9	0
	Mission Road WB			30.9	0
	Richmar Avenue			31.7	0
1	2.Fl	44.7	0.0		
	Liberty Drive			39.7	0
	Marcos Street			42.0	0
	Mission Road EB			32.4	0
	Mission Road WB			32.0	0
	Richmar Avenue			29.3	0
1	3.Fl	46.0	0.0		
	Liberty Drive			40.5	0
	Marcos Street			43.0	0
	Mission Road EB			35.3	0
	Mission Road WB			35.0	0
	Richmar Avenue			33.1	0
2	1.Fl	44.4	0.0		
	Liberty Drive			38.1	0
	Marcos Street			40.8	0
	Mission Road EB			31.6	0
	Mission Road WB			31.2	0
	Richmar Avenue			38.0	0
2	2.Fl	45.5	0.0		
	Liberty Drive			39.4	0
	Marcos Street			41.8	0
	Mission Road EB			33.9	0
	Mission Road WB			33.1	0
	Richmar Avenue			38.6	0
2	3.Fl	46.7	0.0		
	Liberty Drive			40.1	0
	Marcos Street			42.8	0
	Mission Road EB			35.8	0
	Mission Road WB			35.2	0
	Richmar Avenue			40.1	0
3	1.Fl	47.8	0.0		
	Liberty Drive			36.0	0
	Marcos Street			47.2	0
	Mission Road EB			30.1	0
	Mission Road WB			30.2	0
	Richmar Avenue			31.1	0
3	2.Fl	49.2	0.0		
	Liberty Drive			36.8	0
	Marcos Street			48.8	0
	Mission Road EB			32.1	0
	Mission Road WB			31.9	0
	Richmar Avenue			27.9	0
3	3.Fl	50.5	0.0		

Contributions

8458 Villa Serena
SoundPLAN Data - Traffic

Liberty Drive	37.5	0
Marcos Street	49.9	0
Mission Road EB	34.9	0
Mission Road WB	35.1	0
Richmar Avenue	32.2	0
4 1.Fl 47.8 0.0		
Liberty Drive	31.4	0
Marcos Street	47.2	0
Mission Road EB	33.4	0
Mission Road WB	33.4	0
Richmar Avenue	33.3	0
4 2.Fl 49.1 0.0		
Liberty Drive	32.2	0
Marcos Street	48.7	0
Mission Road EB	33.6	0
Mission Road WB	33.2	0
Richmar Avenue	33.7	0
4 3.Fl 50.7 0.0		
Liberty Drive	33.1	0
Marcos Street	49.9	0
Mission Road EB	38.9	0
Mission Road WB	38.5	0
Richmar Avenue	35.5	0
5 1.Fl 49.9 0.0		
Liberty Drive	29.4	0
Marcos Street	44.2	0
Mission Road EB	37.8	0
Mission Road WB	37.7	0
Richmar Avenue	47.7	0
5 2.Fl 51.6 0.0		
Liberty Drive	30.7	0
Marcos Street	45.2	0
Mission Road EB	40.1	0
Mission Road WB	39.7	0
Richmar Avenue	49.6	0
5 3.Fl 52.7 0.0		
Liberty Drive	31.8	0
Marcos Street	46.5	0
Mission Road EB	42.3	0
Mission Road WB	42.0	0
Richmar Avenue	50.4	0
6 1.Fl 42.6 0.0		
Liberty Drive	28.2	0
Marcos Street	41.5	0
Mission Road EB	30.5	0
Mission Road WB	30.8	0
Richmar Avenue	29.9	0
6 2.Fl 43.9 0.0		
Liberty Drive	30.3	0
Marcos Street	42.7	0
Mission Road EB	33.3	0
Mission Road WB	33.3	0

Contributions

8458 Villa Serena
SoundPLAN Data - Traffic

Richmar Avenue				28.9	0
6	3.Fl	45.5	0.0		
Liberty Drive				31.3	0
Marcos Street				44.1	0
Mission Road EB				35.1	0
Mission Road WB				35.3	0
Richmar Avenue				32.5	0
7	1.Fl	56.3	0.0		
Liberty Drive				5.0	0
Marcos Street				17.3	0
Mission Road EB				47.0	0
Mission Road WB				47.0	0
Richmar Avenue				55.1	0
7	2.Fl	58.5	0.0		
Liberty Drive				11.9	0
Marcos Street				23.1	0
Mission Road EB				49.8	0
Mission Road WB				49.5	0
Richmar Avenue				57.2	0
7	3.Fl	59.2	0.0		
Liberty Drive				11.7	0
Marcos Street				21.8	0
Mission Road EB				51.4	0
Mission Road WB				51.3	0
Richmar Avenue				57.4	0
8	1.Fl	61.5	0.0		
Liberty Drive				17.6	0
Marcos Street				33.6	0
Mission Road EB				48.3	0
Mission Road WB				48.6	0
Richmar Avenue				61.0	0
8	2.Fl	63.1	0.0		
Liberty Drive				19.4	0
Marcos Street				35.2	0
Mission Road EB				50.4	0
Mission Road WB				50.7	0
Richmar Avenue				62.6	0
8	3.Fl	63.6	0.0		
Liberty Drive				19.9	0
Marcos Street				36.2	0
Mission Road EB				52.7	0
Mission Road WB				52.9	0
Richmar Avenue				62.8	0
9	1.Fl	61.5	0.0		
Liberty Drive				17.8	0
Marcos Street				34.1	0
Mission Road EB				47.3	0
Mission Road WB				47.6	0
Richmar Avenue				61.1	0
9	2.Fl	63.1	0.0		
Liberty Drive				19.6	0
Marcos Street				35.7	0

Contributions

8458 Villa Serena
SoundPLAN Data - Traffic

Mission Road EB	49.3	0
Mission Road WB	49.6	0
Richmar Avenue	62.7	0
9 3.Fl 63.6 0.0		
Liberty Drive	20.0	0
Marcos Street	36.6	0
Mission Road EB	52.2	0
Mission Road WB	52.4	0
Richmar Avenue	62.9	0
10 1.Fl 61.6 0.0		
Liberty Drive	18.3	0
Marcos Street	34.9	0
Mission Road EB	46.6	0
Mission Road WB	46.9	0
Richmar Avenue	61.3	0
10 2.Fl 63.2 0.0		
Liberty Drive	20.2	0
Marcos Street	36.6	0
Mission Road EB	48.7	0
Mission Road WB	48.9	0
Richmar Avenue	62.9	0
10 3.Fl 63.7 0.0		
Liberty Drive	20.8	0
Marcos Street	37.5	0
Mission Road EB	51.8	0
Mission Road WB	51.9	0
Richmar Avenue	63.0	0
11 1.Fl 61.8 0.0		
Liberty Drive	18.6	0
Marcos Street	35.5	0
Mission Road EB	46.6	0
Mission Road WB	46.8	0
Richmar Avenue	61.6	0
11 2.Fl 63.4 0.0		
Liberty Drive	20.5	0
Marcos Street	37.2	0
Mission Road EB	48.7	0
Mission Road WB	48.8	0
Richmar Avenue	63.1	0
11 3.Fl 63.8 0.0		
Liberty Drive	21.0	0
Marcos Street	38.2	0
Mission Road EB	51.8	0
Mission Road WB	51.8	0
Richmar Avenue	63.1	0
12 1.Fl 62.4 0.0		
Liberty Drive	23.2	0
Marcos Street	36.8	0
Mission Road EB	47.2	0
Mission Road WB	47.5	0
Richmar Avenue	62.1	0
12 2.Fl 63.9 0.0		

Contributions

8458 Villa Serena
SoundPLAN Data - Traffic

Liberty Drive	25.6	0
Marcos Street	38.5	0
Mission Road EB	49.4	0
Mission Road WB	49.6	0
Richmar Avenue	63.5	0
12 3.Fl 64.0 0.0		
Liberty Drive	26.5	0
Marcos Street	39.8	0
Mission Road EB	52.1	0
Mission Road WB	52.0	0
Richmar Avenue	63.4	0
13 1.Fl 59.8 0.0		
Liberty Drive	19.8	0
Marcos Street	39.1	0
Mission Road EB	44.1	0
Mission Road WB	44.0	0
Richmar Avenue	59.5	0
13 2.Fl 61.3 0.0		
Liberty Drive	21.1	0
Marcos Street	40.6	0
Mission Road EB	46.2	0
Mission Road WB	45.8	0
Richmar Avenue	61.0	0
13 3.Fl 61.6 0.0		
Liberty Drive	21.6	0
Marcos Street	41.9	0
Mission Road EB	49.3	0
Mission Road WB	48.9	0
Richmar Avenue	61.0	0
14 1.Fl 62.6 0.0		
Liberty Drive	26.5	0
Marcos Street	42.7	0
Mission Road EB	43.9	0
Mission Road WB	43.6	0
Richmar Avenue	62.5	0
14 2.Fl 63.8 0.0		
Liberty Drive	29.0	0
Marcos Street	44.4	0
Mission Road EB	45.8	0
Mission Road WB	45.1	0
Richmar Avenue	63.6	0
14 3.Fl 63.9 0.0		
Liberty Drive	29.7	0
Marcos Street	45.5	0
Mission Road EB	50.1	0
Mission Road WB	49.5	0
Richmar Avenue	63.5	0
15 1.Fl 62.9 0.0		
Liberty Drive	26.9	0
Marcos Street	45.1	0
Mission Road EB	43.6	0
Mission Road WB	43.3	0

Contributions

8458 Villa Serena
SoundPLAN Data - Traffic

Richmar Avenue				62.7	0
15	2.Fl	63.9	0.0		
Liberty Drive				29.4	0
Marcos Street				46.8	0
Mission Road EB				45.7	0
Mission Road WB				45.0	0
Richmar Avenue				63.7	0
15	3.Fl	64.1	0.0		
Liberty Drive				29.9	0
Marcos Street				47.6	0
Mission Road EB				49.8	0
Mission Road WB				49.1	0
Richmar Avenue				63.7	0
16	1.Fl	63.0	0.0		
Liberty Drive				27.3	0
Marcos Street				47.5	0
Mission Road EB				43.8	0
Mission Road WB				43.5	0
Richmar Avenue				62.8	0
16	2.Fl	63.9	0.0		
Liberty Drive				29.6	0
Marcos Street				49.0	0
Mission Road EB				45.8	0
Mission Road WB				45.2	0
Richmar Avenue				63.6	0
16	3.Fl	64.2	0.0		
Liberty Drive				30.1	0
Marcos Street				49.6	0
Mission Road EB				49.8	0
Mission Road WB				49.1	0
Richmar Avenue				63.7	0
17	1.Fl	63.1	0.0		
Liberty Drive				27.2	0
Marcos Street				49.8	0
Mission Road EB				44.0	0
Mission Road WB				43.7	0
Richmar Avenue				62.8	0
17	2.Fl	64.1	0.0		
Liberty Drive				29.5	0
Marcos Street				51.3	0
Mission Road EB				46.1	0
Mission Road WB				45.6	0
Richmar Avenue				63.7	0
17	3.Fl	64.3	0.0		
Liberty Drive				30.2	0
Marcos Street				51.5	0
Mission Road EB				49.9	0
Mission Road WB				49.3	0
Richmar Avenue				63.8	0
18	1.Fl	63.3	0.0		
Liberty Drive				27.0	0
Marcos Street				51.7	0

Contributions

8458 Villa Serena
SoundPLAN Data - Traffic

Mission Road EB				44.1	0
Mission Road WB				43.8	0
Richmar Avenue				62.8	0
18	2.Fl	64.2	0.0		
Liberty Drive				29.2	0
Marcos Street				53.3	0
Mission Road EB				46.0	0
Mission Road WB				45.6	0
Richmar Avenue				63.7	0
18	3.Fl	64.4	0.0		
Liberty Drive				29.8	0
Marcos Street				53.3	0
Mission Road EB				50.1	0
Mission Road WB				49.6	0
Richmar Avenue				63.7	0
19	1.Fl	60.8	0.0		
Liberty Drive				26.7	0
Marcos Street				58.5	0
Mission Road EB				45.7	0
Mission Road WB				45.9	0
Richmar Avenue				56.2	0
19	2.Fl	62.2	0.0		
Liberty Drive				27.3	0
Marcos Street				59.4	0
Mission Road EB				47.9	0
Mission Road WB				48.0	0
Richmar Avenue				58.1	0
19	3.Fl	62.4	0.0		
Liberty Drive				28.8	0
Marcos Street				59.4	0
Mission Road EB				49.8	0
Mission Road WB				49.6	0
Richmar Avenue				58.3	0
20	1.Fl	60.9	0.0		
Liberty Drive				13.7	0
Marcos Street				60.0	0
Mission Road EB				45.5	0
Mission Road WB				45.6	0
Richmar Avenue				52.6	0
20	2.Fl	62.1	0.0		
Liberty Drive				17.7	0
Marcos Street				60.9	0
Mission Road EB				47.8	0
Mission Road WB				47.9	0
Richmar Avenue				54.6	0
20	3.Fl	62.1	0.0		
Liberty Drive				19.9	0
Marcos Street				60.6	0
Mission Road EB				49.0	0
Mission Road WB				49.2	0
Richmar Avenue				55.3	0
21	1.Fl	61.5	0.0		

Contributions

8458 Villa Serena
SoundPLAN Data - Traffic

Liberty Drive	16.1	0
Marcos Street	59.8	0
Mission Road EB	45.9	0
Mission Road WB	46.0	0
Richmar Avenue	56.0	0
21 2.Fl 62.9 0.0		
Liberty Drive	18.8	0
Marcos Street	60.7	0
Mission Road EB	48.2	0
Mission Road WB	48.4	0
Richmar Avenue	58.1	0
21 3.Fl 63.0 0.0		
Liberty Drive	20.6	0
Marcos Street	60.5	0
Mission Road EB	50.0	0
Mission Road WB	50.0	0
Richmar Avenue	58.3	0
22 1.Fl 63.8 0.0		
Liberty Drive	33.1	0
Marcos Street	53.1	0
Mission Road EB	45.5	0
Mission Road WB	45.5	0
Richmar Avenue	63.2	0
22 2.Fl 65.0 0.0		
Liberty Drive	34.5	0
Marcos Street	54.4	0
Mission Road EB	47.9	0
Mission Road WB	47.8	0
Richmar Avenue	64.4	0
22 3.Fl 65.0 0.0		
Liberty Drive	34.6	0
Marcos Street	54.3	0
Mission Road EB	50.5	0
Mission Road WB	50.3	0
Richmar Avenue	64.2	0
23 1.Fl 63.3 0.0		
Liberty Drive	34.2	0
Marcos Street	49.2	0
Mission Road EB	45.4	0
Mission Road WB	45.3	0
Richmar Avenue	63.0	0
23 2.Fl 64.6 0.0		
Liberty Drive	35.3	0
Marcos Street	50.8	0
Mission Road EB	47.7	0
Mission Road WB	47.5	0
Richmar Avenue	64.2	0
23 3.Fl 64.6 0.0		
Liberty Drive	35.8	0
Marcos Street	51.0	0
Mission Road EB	50.1	0
Mission Road WB	49.7	0

Contributions

8458 Villa Serena
SoundPLAN Data - Traffic

Richmar Avenue				64.0	0
24	1.Fl	63.2	0.0		
Liberty Drive				34.9	0
Marcos Street				47.4	0
Mission Road EB				45.3	0
Mission Road WB				45.2	0
Richmar Avenue				62.9	0
24	2.Fl	64.5	0.0		
Liberty Drive				36.0	0
Marcos Street				49.1	0
Mission Road EB				47.5	0
Mission Road WB				47.2	0
Richmar Avenue				64.2	0
24	3.Fl	64.5	0.0		
Liberty Drive				36.4	0
Marcos Street				49.7	0
Mission Road EB				50.1	0
Mission Road WB				49.5	0
Richmar Avenue				64.0	0
25	1.Fl	62.9	0.0		
Liberty Drive				35.6	0
Marcos Street				45.2	0
Mission Road EB				44.8	0
Mission Road WB				44.7	0
Richmar Avenue				62.7	0
25	2.Fl	64.3	0.0		
Liberty Drive				36.6	0
Marcos Street				46.9	0
Mission Road EB				47.1	0
Mission Road WB				46.8	0
Richmar Avenue				64.0	0
25	3.Fl	64.3	0.0		
Liberty Drive				36.7	0
Marcos Street				47.7	0
Mission Road EB				49.8	0
Mission Road WB				49.3	0
Richmar Avenue				63.9	0
26	1.Fl	62.7	0.0		
Liberty Drive				36.3	0
Marcos Street				43.1	0
Mission Road EB				43.0	0
Mission Road WB				42.6	0
Richmar Avenue				62.6	0
26	2.Fl	64.1	0.0		
Liberty Drive				37.2	0
Marcos Street				44.8	0
Mission Road EB				45.3	0
Mission Road WB				44.6	0
Richmar Avenue				63.9	0
26	3.Fl	64.1	0.0		
Liberty Drive				37.5	0
Marcos Street				45.7	0

Contributions

8458 Villa Serena
SoundPLAN Data - Traffic

Mission Road EB	48.9	0
Mission Road WB	48.1	0
Richmar Avenue	63.8	0
27 1.Fl 62.6 0.0		
Liberty Drive	36.5	0
Marcos Street	41.9	0
Mission Road EB	43.8	0
Mission Road WB	43.6	0
Richmar Avenue	62.4	0
27 2.Fl 64.0 0.0		
Liberty Drive	37.4	0
Marcos Street	43.7	0
Mission Road EB	46.1	0
Mission Road WB	45.6	0
Richmar Avenue	63.8	0
27 3.Fl 64.1 0.0		
Liberty Drive	37.9	0
Marcos Street	44.7	0
Mission Road EB	49.4	0
Mission Road WB	48.6	0
Richmar Avenue	63.7	0
28 1.Fl 59.7 0.0		
Liberty Drive	36.7	0
Marcos Street	39.4	0
Mission Road EB	43.3	0
Mission Road WB	43.2	0
Richmar Avenue	59.4	0
28 2.Fl 61.2 0.0		
Liberty Drive	37.1	0
Marcos Street	41.0	0
Mission Road EB	45.5	0
Mission Road WB	45.0	0
Richmar Avenue	60.9	0
28 3.Fl 61.5 0.0		
Liberty Drive	37.9	0
Marcos Street	42.2	0
Mission Road EB	48.4	0
Mission Road WB	47.7	0
Richmar Avenue	61.0	0
29 1.Fl 62.6 0.0		
Liberty Drive	40.8	0
Marcos Street	37.8	0
Mission Road EB	43.7	0
Mission Road WB	43.6	0
Richmar Avenue	62.5	0
29 2.Fl 64.0 0.0		
Liberty Drive	41.2	0
Marcos Street	39.7	0
Mission Road EB	45.5	0
Mission Road WB	45.0	0
Richmar Avenue	63.8	0
29 3.Fl 64.1 0.0		

Contributions

8458 Villa Serena
SoundPLAN Data - Traffic

Liberty Drive	41.1	0
Marcos Street	40.6	0
Mission Road EB	49.3	0
Mission Road WB	48.6	0
Richmar Avenue	63.7	0
30 1.Fl 62.5 0.0		
Liberty Drive	41.9	0
Marcos Street	37.3	0
Mission Road EB	43.3	0
Mission Road WB	43.0	0
Richmar Avenue	62.4	0
30 2.Fl 63.9 0.0		
Liberty Drive	42.4	0
Marcos Street	39.2	0
Mission Road EB	45.0	0
Mission Road WB	44.4	0
Richmar Avenue	63.8	0
30 3.Fl 64.0 0.0		
Liberty Drive	42.6	0
Marcos Street	40.2	0
Mission Road EB	49.0	0
Mission Road WB	48.1	0
Richmar Avenue	63.7	0
31 1.Fl 62.4 0.0		
Liberty Drive	43.8	0
Marcos Street	36.7	0
Mission Road EB	43.3	0
Mission Road WB	43.0	0
Richmar Avenue	62.3	0
31 2.Fl 63.8 0.0		
Liberty Drive	44.0	0
Marcos Street	38.5	0
Mission Road EB	44.9	0
Mission Road WB	44.4	0
Richmar Avenue	63.6	0
31 3.Fl 63.9 0.0		
Liberty Drive	44.0	0
Marcos Street	39.4	0
Mission Road EB	49.0	0
Mission Road WB	48.1	0
Richmar Avenue	63.6	0
32 1.Fl 62.4 0.0		
Liberty Drive	45.3	0
Marcos Street	35.8	0
Mission Road EB	43.3	0
Mission Road WB	42.8	0
Richmar Avenue	62.2	0
32 2.Fl 63.8 0.0		
Liberty Drive	45.8	0
Marcos Street	37.7	0
Mission Road EB	44.6	0
Mission Road WB	44.2	0

Contributions

8458 Villa Serena
SoundPLAN Data - Traffic

Richmar Avenue				63.6	0
32	3.Fl	63.9	0.0		
Liberty Drive				45.7	0
Marcos Street				38.6	0
Mission Road EB				49.1	0
Mission Road WB				48.2	0
Richmar Avenue				63.6	0
33	1.Fl	62.4	0.0		
Liberty Drive				47.4	0
Marcos Street				34.7	0
Mission Road EB				43.5	0
Mission Road WB				43.3	0
Richmar Avenue				62.1	0
33	2.Fl	63.8	0.0		
Liberty Drive				47.8	0
Marcos Street				36.6	0
Mission Road EB				45.3	0
Mission Road WB				44.8	0
Richmar Avenue				63.5	0
33	3.Fl	63.9	0.0		
Liberty Drive				47.6	0
Marcos Street				37.7	0
Mission Road EB				49.6	0
Mission Road WB				48.7	0
Richmar Avenue				63.5	0
34	1.Fl	62.6	0.0		
Liberty Drive				50.6	0
Marcos Street				33.6	0
Mission Road EB				48.2	0
Mission Road WB				47.5	0
Richmar Avenue				61.9	0
34	2.Fl	64.0	0.0		
Liberty Drive				50.9	0
Marcos Street				35.3	0
Mission Road EB				51.1	0
Mission Road WB				49.7	0
Richmar Avenue				63.4	0
34	3.Fl	64.2	0.0		
Liberty Drive				50.9	0
Marcos Street				36.4	0
Mission Road EB				52.6	0
Mission Road WB				51.5	0
Richmar Avenue				63.4	0
35	1.Fl	59.0	0.0		
Liberty Drive				54.0	0
Marcos Street				13.4	0
Mission Road EB				48.1	0
Mission Road WB				47.2	0
Richmar Avenue				56.3	0
35	2.Fl	60.8	0.0		
Liberty Drive				54.2	0
Marcos Street				20.0	0

Contributions

8458 Villa Serena
SoundPLAN Data - Traffic

Mission Road EB	51.3	0
Mission Road WB	49.6	0
Richmar Avenue	58.5	0
35 3.Fl 61.1 0.0		
Liberty Drive	53.8	0
Marcos Street	23.0	0
Mission Road EB	52.4	0
Mission Road WB	51.0	0
Richmar Avenue	58.8	0
36 1.Fl 57.5 0.0		
Liberty Drive	55.3	0
Marcos Street	14.2	0
Mission Road EB	45.2	0
Mission Road WB	44.4	0
Richmar Avenue	52.1	0
36 2.Fl 58.7 0.0		
Liberty Drive	55.6	0
Marcos Street	20.3	0
Mission Road EB	48.6	0
Mission Road WB	47.0	0
Richmar Avenue	54.1	0
36 3.Fl 59.2 0.0		
Liberty Drive	55.3	0
Marcos Street	22.6	0
Mission Road EB	49.7	0
Mission Road WB	48.4	0
Richmar Avenue	55.2	0
37 1.Fl 57.0 0.0		
Liberty Drive	55.0	0
Marcos Street	14.9	0
Mission Road EB	45.0	0
Mission Road WB	44.3	0
Richmar Avenue	51.1	0
37 2.Fl 58.2 0.0		
Liberty Drive	55.4	0
Marcos Street	21.1	0
Mission Road EB	48.3	0
Mission Road WB	47.0	0
Richmar Avenue	53.0	0
37 3.Fl 58.7 0.0		
Liberty Drive	55.2	0
Marcos Street	23.7	0
Mission Road EB	49.5	0
Mission Road WB	48.3	0
Richmar Avenue	54.1	0

ATTACHMENT 5

SoundPLAN Data – On-site Generated Noise

8458 Villa Serena
SoundPLAN Data - HVAC

source nam	Reference	Level Leq1 dB(A)	Corrections Kwall dB(A)	CI dB(A)	CT dB(A)
1	Unit	72	-	-	-
2	Unit	72	-	-	-
3	Unit	72	-	-	-
4	Unit	72	-	-	-
5	Unit	72	-	-	-
6	Unit	72	-	-	-
7	Unit	72	-	-	-
8	Unit	72	-	-	-
9	Unit	72	-	-	-
10	Unit	72	-	-	-
11	Unit	72	-	-	-
12	Unit	72	-	-	-
13	Unit	72	-	-	-
14	Unit	72	-	-	-
15	Unit	72	-	-	-
16	Unit	72	-	-	-
17	Unit	72	-	-	-
18	Unit	72	-	-	-
19	Unit	72	-	-	-
20	Unit	72	-	-	-
21	Unit	72	-	-	-
22	Unit	72	-	-	-
23	Unit	72	-	-	-
24	Unit	72	-	-	-
25	Unit	72	-	-	-
26	Unit	72	-	-	-
27	Unit	72	-	-	-
28	Unit	72	-	-	-
29	Unit	72	-	-	-
30	Unit	72	-	-	-
31	Unit	72	-	-	-
32	Unit	72	-	-	-
33	Unit	72	-	-	-
34	Unit	72	-	-	-
35	Unit	72	-	-	-
36	Unit	72	-	-	-
37	Unit	72	-	-	-
38	Unit	72	-	-	-
39	Unit	72	-	-	-
40	Unit	72	-	-	-
41	Unit	72	-	-	-
42	Unit	72	-	-	-
43	Unit	72	-	-	-
44	Unit	72	-	-	-
45	Unit	72	-	-	-
46	Unit	72	-	-	-
47	Unit	72	-	-	-
48	Unit	72	-	-	-
49	Unit	72	-	-	-
50	Unit	72	-	-	-
51	Unit	72	-	-	-
52	Unit	72	-	-	-
53	Unit	72	-	-	-
54	Unit	72	-	-	-
55	Unit	72	-	-	-
56	Unit	72	-	-	-
57	Unit	72	-	-	-
58	Unit	72	-	-	-
59	Unit	72	-	-	-
60	Unit	72	-	-	-
61	Unit	72	-	-	-
62	Unit	72	-	-	-
63	Unit	72	-	-	-
64	Unit	72	-	-	-
65	Unit	72	-	-	-
66	Unit	72	-	-	-
67	Unit	72	-	-	-
68	Unit	72	-	-	-
69	Unit	72	-	-	-
70	Unit	72	-	-	-
71	Unit	72	-	-	-
72	Unit	72	-	-	-
73	Unit	72	-	-	-
74	Unit	72	-	-	-
75	Unit	72	-	-	-
76	Unit	72	-	-	-

8458 Villa Serena
SoundPLAN Data - HVAC

77	Unit	72	-	-	-
78	Unit	72	-	-	-
79	Unit	72	-	-	-
80	Unit	72	-	-	-
81	Unit	72	-	-	-
82	Unit	72	-	-	-
83	Unit	72	-	-	-
84	Unit	72	-	-	-
85	Unit	72	-	-	-
86	Unit	72	-	-	-
87	Unit	72	-	-	-
88	Unit	72	-	-	-
89	Unit	72	-	-	-
90	Unit	72	-	-	-
91	Unit	72	-	-	-
92	Unit	72	-	-	-
93	Unit	72	-	-	-
94	Unit	72	-	-	-
95	Unit	72	-	-	-
96	Unit	72	-	-	-
97	Unit	72	-	-	-
98	Unit	72	-	-	-
99	Unit	72	-	-	-
100	Unit	72	-	-	-
101	Unit	72	-	-	-
102	Unit	72	-	-	-
103	Unit	72	-	-	-
104	Unit	72	-	-	-
105	Unit	72	-	-	-
106	Unit	72	-	-	-
107	Unit	72	-	-	-
108	Unit	72	-	-	-
109	Unit	72	-	-	-
110	Unit	72	-	-	-
111	Unit	72	-	-	-
112	Unit	72	-	-	-
113	Unit	72	-	-	-
114	Unit	72	-	-	-
115	Unit	72	-	-	-
116	Unit	72	-	-	-
117	Unit	72	-	-	-
118	Unit	72	-	-	-
119	Unit	72	-	-	-
120	Unit	72	-	-	-
121	Unit	72	-	-	-
122	Unit	72	-	-	-
123	Unit	72	-	-	-
124	Unit	72	-	-	-
125	Unit	72	-	-	-
126	Unit	72	-	-	-
127	Unit	72	-	-	-
128	Unit	72	-	-	-
129	Unit	72	-	-	-
130	Unit	72	-	-	-
131	Unit	72	-	-	-
132	Unit	72	-	-	-
133	Unit	72	-	-	-
134	Unit	72	-	-	-
135	Unit	72	-	-	-
136	Unit	72	-	-	-
137	Unit	72	-	-	-
138	Unit	72	-	-	-
139	Unit	72	-	-	-
140	Unit	72	-	-	-
141	Unit	72	-	-	-
142	Unit	72	-	-	-
143	Unit	72	-	-	-
144	Unit	72	-	-	-
145	Unit	72	-	-	-
146	Unit	72	-	-	-
147	Unit	72	-	-	-
148	Unit	72	-	-	-
149	Unit	72	-	-	-
150	Unit	72	-	-	-

8458 Villa Serena
SoundPLAN Data - HVAC

No.	Receiver name	Building side	Floor	Limit	Level w/o NP	Level w. NP	Difference	Conflict
				Leq1 dB(A)	Leq1 dB(A)	Leq1 dB(A)	Leq1 dB(A)	Leq1 dB(A)
1	1		1.Fl	-	37.4	0	-37.4	-
2	2		1.Fl	-	39.7	0	-39.7	-
3	3		1.Fl	-	41.5	0	-41.5	-
4	4		1.Fl	-	42.2	0	-42.2	-
5	5		1.Fl	-	42.1	0	-42.1	-
6	6		1.Fl	-	42.1	0	-42.1	-
7	7		1.Fl	-	42.2	0	-42.2	-
8	8		1.Fl	-	42.0	0	-42.0	-
9	9		1.Fl	-	41.6	0	-41.6	-
10	10		1.Fl	-	41.2	0	-41.2	-
11	11		1.Fl	-	41.8	0	-41.8	-
12	12		1.Fl	-	41.9	0	-41.9	-
13	13		1.Fl	-	40.7	0	-40.7	-
14	14		1.Fl	-	38.8	0	-38.8	-
15	15		1.Fl	-	34.8	0	-34.8	-
16	16		1.Fl	-	36.1	0	-36.1	-
17	17		1.Fl	-	38.4	0	-38.4	-
18	18		1.Fl	-	39.6	0	-39.6	-
19	19		1.Fl	-	39.4	0	-39.4	-
20	20		1.Fl	-	39.9	0	-39.9	-
21	21		1.Fl	-	39.9	0	-39.9	-
22	22		1.Fl	-	40.4	0	-40.4	-
23	23		1.Fl	-	39.9	0	-39.9	-
24	24		1.Fl	-	38.9	0	-38.9	-
25	25		1.Fl	-	37.5	0	-37.5	-

Source name		Level w/o N	Level w. NP
		Leq1 dB(A)	Leq1 dB(A)
1	1.Fl	37.4	0.0
1		22.5	0
2		22.3	0
3		21.9	0
4		18.7	0
5		18.2	0
6		17.8	0
7		19.9	0
8		19.9	0
9		17.3	0
10		19.7	0
11		19.7	0
12		19.7	0
13		10.7	0
14		10.7	0
15		10.7	0
16		9.1	0
17		9.2	0
18		9.0	0
19		8.5	0
20		8.2	0
21		8.0	0
22		6.9	0
23		7.3	0
24		7.3	0
25		9.7	0
26		12.3	0
27		12.3	0
28		7.3	0
29		7.7	0
30		7.6	0
31		9.2	0
32		9.9	0
33		9.8	0
34		11.5	0
35		11.8	0
36		11.8	0
37		14.6	0
38		15.1	0
39		15.3	0
40		25.8	0
41		25.7	0
42		25.8	0
43		26.7	0
44		26.7	0
45		26.6	0
46		26.7	0
47		26.6	0
48		26.6	0
49		1.9	0
50		1.9	0
51		1.9	0
52		2.4	0
53		2.4	0
54		2.4	0
55		1.0	0
56		1.0	0
57		1.1	0
58		0.7	0
59		0.5	0
60		0.5	0
61		-0.2	0
62		-0.2	0
63		2.3	0
64		-0.7	0
65		-0.8	0
66		-0.8	0
67		-1.8	0
68		-1.8	0
69		-1.8	0
70		0.9	0
71		-1.5	0
72		1.0	0
73		1.1	0
74		1.1	0
75		1.0	0
76		-1.4	0
77		-1.3	0
78		-1.3	0
79		-0.8	0
80		-0.8	0
81		-0.9	0
82		-0.1	0
83		-0.1	0
84		-0.1	0
85		1.5	0
86		1.4	0
87		0.6	0
88		-3.7	0
89		-3.7	0
90		-3.7	0
91		-4.3	0
92		-4.4	0
93		-4.3	0
94		-4.9	0
95		-4.7	0
96		-4.7	0
97		-4.7	0
98		-4.8	0
99		-4.8	0
100		-5.3	0
101		-5.3	0

8458 Villa Serena
SoundPLAN Data - HVAC

102	-5.3	0
103	-3.3	0
104	-2.8	0
105	-2.8	0
106	-5.4	0
107	-2.9	0
108	-3.3	0
109	-2.5	0
110	-2.9	0
111	-5.4	0
112	-5.0	0
113	-4.9	0
114	-5.0	0
115	-4.5	0
116	-4.5	0
117	-4.5	0
118	-3.9	0
119	-3.9	0
120	-3.8	0
121	-6.9	0
122	-6.8	0
123	-6.6	0
124	-6.6	0
125	-6.8	0
126	-6.9	0
127	-7.1	0
128	-7.3	0
129	-4.5	0
130	-7.5	0
131	-7.5	0
132	-7.6	0
133	-5.4	0
134	-5.3	0
135	-5.3	0
136	-5.0	0
137	-5.0	0
138	-5.4	0
139	-7.5	0
140	-7.5	0
141	-7.5	0
142	-7.3	0
143	-7.4	0
144	-7.5	0
145	-4.4	0
146	-6.9	0
147	-6.9	0
148	-6.8	0
149	-6.7	0
150	-6.7	0
2	1.FI	39.7 0.0
1		29.7 0
2		29.4 0
3		29.4 0
4		27.6 0
5		27.4 0
6		27.2 0
7		23.8 0
8		23.2 0
9		18.5 0
10		16.1 0
11		15.9 0
12		19.8 0
13		14.8 0
14		15.0 0
15		15.3 0
16		15.3 0
17		15.2 0
18		15.1 0
19		14.3 0
20		14.3 0
21		14.2 0
22		22.7 0
23		22.6 0
24		22.6 0
25		17.8 0
26		17.5 0
27		17.4 0
28		15.2 0
29		15.3 0
30		15.1 0
31		15.1 0
32		15.3 0
33		14.6 0
34		15.5 0
35		19.7 0
36		15.3 0
37		19.8 0
38		19.8 0
39		15.9 0
40		15.0 0
41		15.1 0
42		15.1 0
43		18.4 0
44		19.2 0
45		19.4 0
46		19.4 0
47		19.4 0
48		20.2 0
49		13.4 0
50		13.5 0
51		13.6 0
52		17.2 0
53		17.1 0
54		17.2 0
55		16.4 0

8458 Villa Serena
SoundPLAN Data - HVAC

56		16.3	0
57		16.4	0
58		16.3	0
59		16.3	0
60		16.8	0
61		15.3	0
62		15.0	0
63		18.8	0
64		15.1	0
65		15.4	0
66		14.9	0
67		14.4	0
68		14.5	0
69		14.5	0
70		17.4	0
71		15.0	0
72		17.4	0
73		16.8	0
74		16.8	0
75		17.2	0
76		12.3	0
77		12.1	0
78		10.6	0
79		12.3	0
80		11.2	0
81		9.6	0
82		13.4	0
83		13.0	0
84		12.5	0
85		15.0	0
86		12.1	0
87		12.5	0
88		10.6	0
89		10.7	0
90		10.6	0
91		11.1	0
92		12.0	0
93		12.4	0
94		7.8	0
95		11.2	0
96		10.9	0
97		11.8	0
98		9.8	0
99		9.9	0
100		11.1	0
101		9.9	0
102		10.0	0
103		13.1	0
104		13.1	0
105		13.1	0
106		10.9	0
107		13.4	0
108		13.6	0
109		14.0	0
110		14.0	0
111		9.8	0
112		10.3	0
113		9.5	0
114		7.9	0
115		11.0	0
116		10.8	0
117		8.8	0
118		7.9	0
119		8.0	0
120		9.6	0
121		7.8	0
122		8.6	0
123		11.0	0
124		11.2	0
125		9.4	0
126		8.9	0
127		8.4	0
128		8.4	0
129		12.4	0
130		9.6	0
131		7.8	0
132		7.8	0
133		11.6	0
134		11.7	0
135		11.5	0
136		11.6	0
137		11.6	0
138		10.6	0
139		7.3	0
140		6.3	0
141		9.4	0
142		7.3	0
143		5.3	0
144		4.0	0
145		11.8	0
146		8.1	0
147		7.7	0
148		3.8	0
149		4.5	0
150		4.8	0
3	1.Fl	41.5	0.0
1		29.9	0
2		29.8	0
3		30.1	0
4		30.0	0
5		29.8	0
6		29.8	0
7		25.6	0
8		25.2	0
9		19.7	0

8458 Villa Serena
SoundPLAN Data - HVAC

10	17.9	0
11	17.8	0
12	17.6	0
13	17.0	0
14	17.3	0
15	17.7	0
16	17.6	0
17	23.4	0
18	23.3	0
19	21.6	0
20	22.6	0
21	22.5	0
22	24.0	0
23	24.0	0
24	24.0	0
25	22.0	0
26	21.9	0
27	21.8	0
28	23.2	0
29	23.7	0
30	23.7	0
31	17.2	0
32	17.3	0
33	17.2	0
34	17.5	0
35	17.3	0
36	17.3	0
37	21.4	0
38	21.5	0
39	21.5	0
40	19.6	0
41	19.8	0
42	15.8	0
43	21.7	0
44	22.1	0
45	22.3	0
46	19.6	0
47	19.8	0
48	20.1	0
49	14.7	0
50	14.9	0
51	17.7	0
52	18.6	0
53	18.5	0
54	18.5	0
55	17.4	0
56	17.3	0
57	17.4	0
58	17.3	0
59	17.3	0
60	17.8	0
61	16.2	0
62	15.9	0
63	19.8	0
64	15.9	0
65	16.3	0
66	15.9	0
67	15.3	0
68	15.3	0
69	15.3	0
70	18.3	0
71	15.8	0
72	18.3	0
73	18.1	0
74	17.6	0
75	17.5	0
76	16.1	0
77	13.1	0
78	11.7	0
79	13.3	0
80	12.1	0
81	10.6	0
82	16.7	0
83	13.9	0
84	13.5	0
85	17.9	0
86	13.0	0
87	13.3	0
88	11.3	0
89	11.4	0
90	11.4	0
91	11.6	0
92	12.6	0
93	13.0	0
94	8.5	0
95	11.7	0
96	11.5	0
97	12.5	0
98	10.4	0
99	10.4	0
100	11.6	0
101	10.4	0
102	10.9	0
103	13.6	0
104	13.7	0
105	13.6	0
106	11.5	0
107	13.9	0
108	14.1	0
109	14.6	0
110	14.6	0
111	10.3	0
112	11.0	0
113	10.1	0
114	8.5	0

8458 Villa Serena
SoundPLAN Data - HVAC

115		11.6	0
116		11.4	0
117		9.5	0
118		8.7	0
119		8.7	0
120		10.3	0
121		8.4	0
122		9.2	0
123		11.5	0
124		11.8	0
125		9.9	0
126		9.4	0
127		8.8	0
128		8.8	0
129		12.9	0
130		10.0	0
131		8.3	0
132		8.3	0
133		12.1	0
134		12.1	0
135		12.0	0
136		12.1	0
137		12.1	0
138		11.2	0
139		7.9	0
140		7.0	0
141		9.9	0
142		7.9	0
143		5.9	0
144		4.6	0
145		12.3	0
146		8.8	0
147		8.6	0
148		4.4	0
149		5.1	0
150		5.3	0
4	1.Fl	42.2	0.0
1		26.6	0
2		26.8	0
3		26.9	0
4		28.2	0
5		28.7	0
6		28.7	0
7		22.8	0
8		22.5	0
9		20.9	0
10		23.5	0
11		24.6	0
12		24.4	0
13		25.0	0
14		25.2	0
15		25.2	0
16		25.3	0
17		24.2	0
18		24.1	0
19		23.7	0
20		23.5	0
21		23.5	0
22		23.4	0
23		23.2	0
24		23.1	0
25		22.4	0
26		23.2	0
27		22.1	0
28		24.3	0
29		24.5	0
30		24.7	0
31		24.7	0
32		24.7	0
33		24.6	0
34		24.7	0
35		24.6	0
36		24.8	0
37		25.0	0
38		24.9	0
39		23.4	0
40		17.5	0
41		17.8	0
42		20.3	0
43		21.0	0
44		21.5	0
45		22.1	0
46		22.3	0
47		22.6	0
48		22.9	0
49		19.4	0
50		19.4	0
51		19.5	0
52		20.4	0
53		20.3	0
54		20.4	0
55		18.7	0
56		18.6	0
57		18.7	0
58		18.6	0
59		18.6	0
60		19.1	0
61		17.3	0
62		17.1	0
63		20.9	0
64		17.1	0
65		17.8	0
66		16.9	0
67		16.4	0
68		16.4	0

8458 Villa Serena
SoundPLAN Data - HVAC

69	16.4	0
70	19.4	0
71	17.0	0
72	19.4	0
73	18.6	0
74	19.3	0
75	19.2	0
76	17.2	0
77	14.4	0
78	13.1	0
79	17.8	0
80	15.8	0
81	12.1	0
82	18.7	0
83	16.9	0
84	14.3	0
85	20.3	0
86	14.0	0
87	14.4	0
88	12.3	0
89	12.4	0
90	12.4	0
91	12.4	0
92	13.4	0
93	13.9	0
94	9.6	0
95	12.4	0
96	12.1	0
97	13.3	0
98	10.8	0
99	10.9	0
100	12.5	0
101	11.2	0
102	11.4	0
103	14.5	0
104	14.3	0
105	14.2	0
106	12.1	0
107	14.5	0
108	14.5	0
109	15.3	0
110	15.3	0
111	10.8	0
112	11.6	0
113	10.5	0
114	9.2	0
115	12.2	0
116	12.0	0
117	10.2	0
118	9.6	0
119	9.6	0
120	11.2	0
121	9.1	0
122	10.0	0
123	12.2	0
124	12.6	0
125	10.5	0
126	10.0	0
127	9.5	0
128	9.7	0
129	13.6	0
130	10.7	0
131	8.7	0
132	8.8	0
133	12.7	0
134	12.8	0
135	12.5	0
136	12.7	0
137	12.7	0
138	12.2	0
139	8.5	0
140	7.6	0
141	10.5	0
142	8.5	0
143	6.4	0
144	5.2	0
145	12.8	0
146	9.3	0
147	9.0	0
148	5.0	0
149	5.9	0
150	6.2	0
5	1.FI	42.1 0.0
1		23.3 0
2		23.5 0
3		23.6 0
4		25.0 0
5		25.1 0
6		25.2 0
7		23.3 0
8		23.1 0
9		23.1 0
10		22.5 0
11		22.3 0
12		22.3 0
13		23.9 0
14		23.8 0
15		24.0 0
16		24.6 0
17		23.5 0
18		23.5 0
19		23.3 0
20		23.4 0
21		25.0 0
22		24.9 0

8458 Villa Serena
SoundPLAN Data - HVAC

23	24.7	0
24	24.6	0
25	22.8	0
26	22.6	0
27	22.4	0
28	24.9	0
29	25.0	0
30	24.9	0
31	24.6	0
32	24.6	0
33	24.7	0
34	24.4	0
35	24.2	0
36	24.0	0
37	23.8	0
38	22.3	0
39	22.2	0
40	20.3	0
41	20.5	0
42	21.2	0
43	23.9	0
44	23.7	0
45	22.2	0
46	20.4	0
47	23.8	0
48	21.8	0
49	21.4	0
50	21.5	0
51	21.7	0
52	22.5	0
53	22.5	0
54	22.7	0
55	20.3	0
56	20.2	0
57	20.4	0
58	20.2	0
59	20.3	0
60	21.8	0
61	18.6	0
62	19.1	0
63	22.3	0
64	18.4	0
65	18.4	0
66	18.3	0
67	17.8	0
68	17.8	0
69	17.8	0
70	20.3	0
71	18.3	0
72	20.8	0
73	20.5	0
74	20.5	0
75	20.0	0
76	18.3	0
77	18.4	0
78	16.6	0
79	20.2	0
80	17.5	0
81	13.4	0
82	21.9	0
83	18.8	0
84	19.9	0
85	22.2	0
86	15.3	0
87	20.3	0
88	10.5	0
89	10.7	0
90	10.7	0
91	13.3	0
92	14.4	0
93	14.9	0
94	10.8	0
95	13.2	0
96	13.0	0
97	14.2	0
98	11.9	0
99	12.0	0
100	13.6	0
101	12.4	0
102	12.2	0
103	15.8	0
104	15.0	0
105	15.1	0
106	13.4	0
107	15.1	0
108	15.2	0
109	15.7	0
110	15.3	0
111	11.0	0
112	13.3	0
113	11.1	0
114	9.7	0
115	13.9	0
116	12.7	0
117	11.0	0
118	10.6	0
119	10.7	0
120	12.2	0
121	10.0	0
122	10.9	0
123	13.0	0
124	13.6	0
125	11.2	0
126	10.7	0
127	10.2	0

8458 Villa Serena
SoundPLAN Data - HVAC

128		10.3	0
129		14.3	0
130		11.4	0
131		9.4	0
132		9.4	0
133		13.4	0
134		13.5	0
135		13.2	0
136		13.4	0
137		13.4	0
138		12.9	0
139		9.0	0
140		8.1	0
141		11.1	0
142		9.1	0
143		7.2	0
144		6.0	0
145		13.5	0
146		9.8	0
147		9.5	0
148		5.9	0
149		6.6	0
150		6.9	0
6	1.Fl	42.1	0.0
1		21.0	0
2		21.1	0
3		21.0	0
4		22.4	0
5		22.3	0
6		22.4	0
7		20.4	0
8		20.4	0
9		21.0	0
10		20.1	0
11		20.0	0
12		18.1	0
13		24.7	0
14		24.8	0
15		24.6	0
16		22.9	0
17		21.8	0
18		22.0	0
19		20.6	0
20		21.2	0
21		23.8	0
22		24.3	0
23		25.0	0
24		24.9	0
25		23.6	0
26		23.6	0
27		23.4	0
28		24.0	0
29		24.7	0
30		24.6	0
31		21.4	0
32		24.1	0
33		24.0	0
34		22.4	0
35		22.8	0
36		23.1	0
37		22.0	0
38		22.7	0
39		22.6	0
40		22.3	0
41		22.4	0
42		20.0	0
43		22.6	0
44		22.7	0
45		22.8	0
46		20.6	0
47		22.9	0
48		20.6	0
49		21.3	0
50		21.3	0
51		20.9	0
52		24.5	0
53		24.5	0
54		24.4	0
55		21.9	0
56		21.9	0
57		22.0	0
58		22.4	0
59		22.1	0
60		22.8	0
61		20.5	0
62		20.9	0
63		24.4	0
64		20.3	0
65		20.1	0
66		20.0	0
67		19.5	0
68		19.4	0
69		19.4	0
70		20.7	0
71		20.0	0
72		22.3	0
73		21.4	0
74		21.7	0
75		21.8	0
76		22.0	0
77		21.6	0
78		18.5	0
79		22.8	0
80		19.2	0
81		20.6	0

8458 Villa Serena
SoundPLAN Data - HVAC

82		23.3	0
83		23.5	0
84		21.5	0
85		23.8	0
86		18.4	0
87		22.3	0
88		12.0	0
89		12.1	0
90		15.1	0
91		14.3	0
92		15.5	0
93		16.1	0
94		12.3	0
95		14.2	0
96		14.9	0
97		15.6	0
98		12.9	0
99		13.0	0
100		15.0	0
101		13.2	0
102		12.9	0
103		16.7	0
104		15.9	0
105		16.0	0
106		14.2	0
107		16.7	0
108		16.7	0
109		16.3	0
110		16.3	0
111		12.0	0
112		14.1	0
113		12.1	0
114		10.7	0
115		14.4	0
116		13.4	0
117		11.9	0
118		11.9	0
119		11.9	0
120		13.0	0
121		11.0	0
122		11.9	0
123		13.8	0
124		14.6	0
125		11.5	0
126		10.9	0
127		10.9	0
128		11.1	0
129		15.1	0
130		12.3	0
131		10.1	0
132		10.0	0
133		14.2	0
134		14.3	0
135		14.1	0
136		14.2	0
137		14.1	0
138		13.6	0
139		12.1	0
140		9.3	0
141		12.1	0
142		10.0	0
143		8.2	0
144		6.9	0
145		14.4	0
146		10.8	0
147		10.5	0
148		6.8	0
149		7.6	0
150		7.8	0
7	1.Fl	42.2	0.0
1		19.2	0
2		19.2	0
3		18.8	0
4		20.1	0
5		20.2	0
6		20.1	0
7		18.1	0
8		18.0	0
9		19.2	0
10		16.4	0
11		15.7	0
12		16.0	0
13		22.6	0
14		22.9	0
15		23.0	0
16		23.5	0
17		20.0	0
18		20.2	0
19		19.3	0
20		19.6	0
21		21.9	0
22		22.8	0
23		22.7	0
24		22.6	0
25		21.7	0
26		21.6	0
27		21.5	0
28		20.6	0
29		23.6	0
30		23.2	0
31		20.4	0
32		23.1	0
33		22.9	0
34		20.1	0
35		22.4	0

8458 Villa Serena
SoundPLAN Data - HVAC

36	22.3	0
37	19.4	0
38	20.2	0
39	21.3	0
40	20.5	0
41	20.6	0
42	20.9	0
43	21.2	0
44	21.2	0
45	21.3	0
46	18.9	0
47	21.3	0
48	19.1	0
49	23.0	0
50	23.2	0
51	23.4	0
52	24.6	0
53	24.7	0
54	24.9	0
55	23.1	0
56	23.0	0
57	23.2	0
58	24.5	0
59	23.4	0
60	24.4	0
61	22.5	0
62	22.7	0
63	26.3	0
64	22.1	0
65	22.0	0
66	21.9	0
67	21.5	0
68	21.5	0
69	21.5	0
70	22.5	0
71	22.0	0
72	24.3	0
73	23.9	0
74	23.9	0
75	23.7	0
76	23.6	0
77	23.6	0
78	20.8	0
79	24.5	0
80	23.9	0
81	21.8	0
82	24.5	0
83	24.6	0
84	22.5	0
85	24.9	0
86	22.7	0
87	22.9	0
88	17.0	0
89	16.9	0
90	16.9	0
91	15.6	0
92	16.8	0
93	17.6	0
94	14.0	0
95	16.2	0
96	16.1	0
97	16.9	0
98	14.0	0
99	14.0	0
100	16.3	0
101	14.1	0
102	13.8	0
103	17.9	0
104	18.0	0
105	17.0	0
106	14.9	0
107	17.3	0
108	17.7	0
109	18.3	0
110	17.3	0
111	13.1	0
112	16.4	0
113	13.3	0
114	12.0	0
115	16.9	0
116	17.1	0
117	13.4	0
118	13.5	0
119	13.6	0
120	14.3	0
121	12.1	0
122	13.2	0
123	14.8	0
124	15.9	0
125	12.3	0
126	11.8	0
127	11.8	0
128	12.0	0
129	16.1	0
130	13.2	0
131	10.9	0
132	10.9	0
133	15.1	0
134	15.2	0
135	15.2	0
136	15.2	0
137	15.1	0
138	15.0	0
139	12.9	0
140	10.2	0

8458 Villa Serena
SoundPLAN Data - HVAC

141		13.0	0
142		11.3	0
143		9.4	0
144		8.1	0
145		15.4	0
146		12.0	0
147		11.8	0
148		8.0	0
149		8.8	0
150		9.1	0
8	1.Fl	42.0	0.0
1		17.5	0
2		17.4	0
3		16.8	0
4		18.3	0
5		18.3	0
6		18.0	0
7		16.1	0
8		16.0	0
9		17.5	0
10		14.0	0
11		13.9	0
12		14.0	0
13		21.0	0
14		20.8	0
15		21.2	0
16		21.7	0
17		18.3	0
18		18.4	0
19		17.4	0
20		17.6	0
21		20.0	0
22		20.2	0
23		20.1	0
24		20.1	0
25		19.6	0
26		19.5	0
27		19.4	0
28		19.2	0
29		22.2	0
30		22.1	0
31		18.5	0
32		21.2	0
33		21.1	0
34		18.7	0
35		18.5	0
36		18.5	0
37		15.9	0
38		16.2	0
39		17.6	0
40		19.3	0
41		19.3	0
42		19.4	0
43		19.7	0
44		19.7	0
45		19.7	0
46		17.3	0
47		19.8	0
48		17.4	0
49		22.5	0
50		22.6	0
51		22.8	0
52		23.2	0
53		23.3	0
54		23.2	0
55		22.5	0
56		22.7	0
57		22.6	0
58		24.6	0
59		23.6	0
60		24.5	0
61		23.4	0
62		23.7	0
63		24.9	0
64		23.4	0
65		23.3	0
66		23.4	0
67		23.9	0
68		23.9	0
69		23.8	0
70		23.2	0
71		21.2	0
72		21.4	0
73		23.0	0
74		22.8	0
75		22.7	0
76		24.7	0
77		24.8	0
78		24.8	0
79		25.1	0
80		25.0	0
81		22.9	0
82		25.2	0
83		25.1	0
84		23.0	0
85		24.7	0
86		22.7	0
87		22.9	0
88		19.1	0
89		19.1	0
90		19.0	0
91		17.4	0
92		18.3	0
93		19.2	0
94		15.8	0

8458 Villa Serena
SoundPLAN Data - HVAC

95		17.6	0
96		17.5	0
97		18.3	0
98		15.2	0
99		15.3	0
100		17.7	0
101		15.2	0
102		14.8	0
103		19.2	0
104		19.3	0
105		19.4	0
106		16.6	0
107		18.9	0
108		18.4	0
109		19.4	0
110		19.4	0
111		17.0	0
112		18.7	0
113		16.5	0
114		15.4	0
115		18.1	0
116		18.2	0
117		16.8	0
118		18.3	0
119		18.4	0
120		18.5	0
121		13.5	0
122		14.6	0
123		15.9	0
124		17.1	0
125		13.2	0
126		12.8	0
127		12.9	0
128		13.0	0
129		17.2	0
130		14.3	0
131		11.7	0
132		11.7	0
133		16.1	0
134		16.1	0
135		16.2	0
136		16.1	0
137		16.1	0
138		15.9	0
139		14.4	0
140		11.6	0
141		14.5	0
142		12.1	0
143		10.3	0
144		9.1	0
145		16.6	0
146		14.0	0
147		13.1	0
148		9.2	0
149		10.0	0
150		10.4	0
9	1.Fl	41.6	0.0
1		16.0	0
2		15.8	0
3		15.2	0
4		16.6	0
5		16.7	0
6		16.3	0
7		14.4	0
8		14.3	0
9		15.9	0
10		12.5	0
11		12.1	0
12		12.4	0
13		19.7	0
14		19.2	0
15		19.5	0
16		19.9	0
17		16.7	0
18		16.6	0
19		15.9	0
20		16.2	0
21		18.1	0
22		17.9	0
23		17.8	0
24		17.7	0
25		13.4	0
26		13.2	0
27		13.2	0
28		17.7	0
29		18.3	0
30		18.2	0
31		17.3	0
32		17.6	0
33		17.5	0
34		14.9	0
35		17.0	0
36		16.9	0
37		14.7	0
38		15.3	0
39		16.3	0
40		18.2	0
41		18.1	0
42		18.1	0
43		18.2	0
44		18.3	0
45		18.3	0
46		15.8	0
47		18.3	0
48		15.9	0

8458 Villa Serena
SoundPLAN Data - HVAC

49	20.9	0
50	21.1	0
51	21.2	0
52	21.4	0
53	21.3	0
54	21.4	0
55	20.8	0
56	20.8	0
57	23.2	0
58	23.0	0
59	22.2	0
60	22.5	0
61	22.4	0
62	22.6	0
63	23.1	0
64	23.1	0
65	23.0	0
66	23.0	0
67	25.2	0
68	25.2	0
69	25.3	0
70	22.2	0
71	22.3	0
72	22.3	0
73	21.4	0
74	23.4	0
75	23.2	0
76	24.9	0
77	24.9	0
78	25.1	0
79	24.8	0
80	24.9	0
81	22.7	0
82	24.1	0
83	24.5	0
84	22.3	0
85	23.5	0
86	21.6	0
87	21.8	0
88	21.6	0
89	21.6	0
90	21.6	0
91	19.8	0
92	20.0	0
93	21.1	0
94	18.1	0
95	19.4	0
96	19.2	0
97	20.1	0
98	16.8	0
99	17.2	0
100	19.4	0
101	16.4	0
102	17.0	0
103	20.8	0
104	20.9	0
105	20.9	0
106	17.3	0
107	19.6	0
108	20.2	0
109	20.2	0
110	20.1	0
111	18.3	0
112	21.4	0
113	20.6	0
114	17.5	0
115	20.5	0
116	20.6	0
117	18.2	0
118	20.3	0
119	20.6	0
120	17.5	0
121	15.1	0
122	16.5	0
123	17.2	0
124	18.2	0
125	14.2	0
126	13.9	0
127	14.1	0
128	14.2	0
129	18.4	0
130	15.6	0
131	12.8	0
132	12.7	0
133	17.2	0
134	17.3	0
135	17.3	0
136	17.3	0
137	17.2	0
138	17.2	0
139	15.6	0
140	12.7	0
141	15.7	0
142	13.8	0
143	11.6	0
144	10.8	0
145	17.6	0
146	15.1	0
147	14.1	0
148	10.7	0
149	11.5	0
150	11.9	0
10	1.FI	41.2 0.0
1		14.4 0
2		14.2 0

8458 Villa Serena
SoundPLAN Data - HVAC

3	13.5	0
4	15.0	0
5	14.9	0
6	14.6	0
7	12.7	0
8	12.6	0
9	14.1	0
10	10.8	0
11	10.4	0
12	10.6	0
13	17.9	0
14	17.7	0
15	17.6	0
16	18.2	0
17	15.2	0
18	14.8	0
19	14.5	0
20	14.9	0
21	16.2	0
22	15.6	0
23	15.5	0
24	15.4	0
25	11.2	0
26	11.0	0
27	11.1	0
28	11.5	0
29	13.1	0
30	15.7	0
31	15.6	0
32	14.7	0
33	15.8	0
34	13.2	0
35	14.2	0
36	15.3	0
37	12.9	0
38	13.6	0
39	13.8	0
40	16.7	0
41	16.7	0
42	16.7	0
43	16.7	0
44	16.7	0
45	16.8	0
46	14.3	0
47	16.8	0
48	14.3	0
49	18.9	0
50	21.3	0
51	21.2	0
52	19.1	0
53	19.1	0
54	19.0	0
55	17.9	0
56	18.2	0
57	20.5	0
58	20.4	0
59	19.7	0
60	19.8	0
61	20.1	0
62	20.5	0
63	18.4	0
64	21.0	0
65	21.0	0
66	17.9	0
67	23.5	0
68	23.7	0
69	23.8	0
70	23.1	0
71	23.9	0
72	23.7	0
73	20.6	0
74	20.5	0
75	20.7	0
76	19.7	0
77	21.4	0
78	22.5	0
79	22.5	0
80	22.5	0
81	18.7	0
82	20.2	0
83	20.2	0
84	17.9	0
85	22.0	0
86	19.2	0
87	19.7	0
88	24.3	0
89	24.4	0
90	24.4	0
91	23.1	0
92	22.4	0
93	23.6	0
94	22.3	0
95	21.6	0
96	21.6	0
97	19.8	0
98	19.3	0
99	20.6	0
100	18.7	0
101	19.4	0
102	20.1	0
103	23.0	0
104	22.9	0
105	22.9	0
106	19.3	0
107	21.5	0

8458 Villa Serena
SoundPLAN Data - HVAC

108		21.6	0
109		22.1	0
110		22.0	0
111		21.9	0
112		22.2	0
113		22.5	0
114		18.7	0
115		23.1	0
116		23.3	0
117		22.5	0
118		18.3	0
119		18.3	0
120		18.2	0
121		19.8	0
122		19.2	0
123		19.0	0
124		17.0	0
125		15.7	0
126		15.6	0
127		15.8	0
128		16.0	0
129		20.0	0
130		17.3	0
131		14.1	0
132		14.8	0
133		18.7	0
134		18.8	0
135		18.9	0
136		18.4	0
137		18.5	0
138		18.5	0
139		16.9	0
140		13.6	0
141		17.0	0
142		17.2	0
143		13.2	0
144		12.2	0
145		20.2	0
146		20.1	0
147		19.6	0
148		12.7	0
149		13.5	0
150		13.8	0
11	1.Fl	41.8	0.0
1		13.2	0
2		13.1	0
3		12.3	0
4		13.8	0
5		13.7	0
6		13.4	0
7		11.5	0
8		11.5	0
9		13.0	0
10		9.5	0
11		9.3	0
12		9.6	0
13		16.8	0
14		16.6	0
15		16.4	0
16		17.1	0
17		14.0	0
18		13.5	0
19		13.6	0
20		15.0	0
21		14.9	0
22		14.0	0
23		13.9	0
24		13.9	0
25		10.2	0
26		10.1	0
27		10.2	0
28		11.0	0
29		13.0	0
30		14.6	0
31		11.1	0
32		12.6	0
33		14.5	0
34		12.5	0
35		13.5	0
36		14.0	0
37		12.3	0
38		12.9	0
39		13.1	0
40		15.6	0
41		15.6	0
42		15.6	0
43		15.6	0
44		15.6	0
45		15.6	0
46		13.1	0
47		15.6	0
48		13.2	0
49		19.9	0
50		20.0	0
51		20.1	0
52		17.5	0
53		17.5	0
54		17.5	0
55		16.2	0
56		16.1	0
57		18.9	0
58		18.7	0
59		18.0	0
60		18.1	0
61		18.4	0

8458 Villa Serena
SoundPLAN Data - HVAC

62	18.7	0
63	14.0	0
64	16.5	0
65	16.5	0
66	16.6	0
67	21.0	0
68	21.2	0
69	21.5	0
70	20.2	0
71	21.8	0
72	20.9	0
73	19.4	0
74	18.7	0
75	18.3	0
76	19.8	0
77	21.1	0
78	22.7	0
79	21.6	0
80	22.1	0
81	21.8	0
82	21.6	0
83	21.4	0
84	18.4	0
85	17.9	0
86	20.2	0
87	20.2	0
88	24.1	0
89	24.4	0
90	24.5	0
91	24.5	0
92	23.8	0
93	25.0	0
94	24.6	0
95	23.2	0
96	23.2	0
97	21.7	0
98	22.4	0
99	23.1	0
100	21.7	0
101	22.1	0
102	22.1	0
103	25.1	0
104	25.1	0
105	25.0	0
106	21.8	0
107	24.0	0
108	23.4	0
109	22.0	0
110	24.1	0
111	23.7	0
112	24.3	0
113	24.3	0
114	24.5	0
115	24.5	0
116	24.6	0
117	24.6	0
118	22.8	0
119	23.0	0
120	23.2	0
121	21.7	0
122	19.4	0
123	19.9	0
124	17.6	0
125	17.3	0
126	21.0	0
127	17.4	0
128	17.5	0
129	21.8	0
130	18.8	0
131	15.6	0
132	16.4	0
133	20.1	0
134	20.4	0
135	20.4	0
136	19.8	0
137	19.7	0
138	19.9	0
139	18.1	0
140	18.5	0
141	18.6	0
142	21.2	0
143	17.6	0
144	14.0	0
145	21.8	0
146	21.8	0
147	21.9	0
148	16.7	0
149	15.8	0
150	16.2	0
12	1.FI	41.9 0.0
1		11.8 0
2		11.6 0
3		10.8 0
4		12.4 0
5		12.3 0
6		11.9 0
7		10.0 0
8		10.0 0
9		11.5 0
10		8.0 0
11		7.7 0
12		8.1 0
13		15.2 0
14		15.2 0
15		14.9 0

8458 Villa Serena
SoundPLAN Data - HVAC

16	15.4	0
17	12.7	0
18	11.9	0
19	12.4	0
20	13.4	0
21	13.4	0
22	12.2	0
23	12.1	0
24	8.4	0
25	8.3	0
26	8.1	0
27	8.3	0
28	9.3	0
29	11.5	0
30	11.8	0
31	9.6	0
32	11.3	0
33	11.5	0
34	9.9	0
35	11.0	0
36	11.2	0
37	11.0	0
38	11.7	0
39	11.8	0
40	14.3	0
41	14.3	0
42	14.3	0
43	14.2	0
44	14.2	0
45	14.3	0
46	11.8	0
47	14.3	0
48	11.8	0
49	17.7	0
50	17.7	0
51	17.7	0
52	15.4	0
53	15.5	0
54	15.5	0
55	13.9	0
56	14.1	0
57	16.6	0
58	16.5	0
59	15.9	0
60	16.0	0
61	13.8	0
62	14.1	0
63	11.1	0
64	14.5	0
65	14.5	0
66	14.6	0
67	18.2	0
68	18.3	0
69	18.4	0
70	16.8	0
71	18.5	0
72	17.5	0
73	15.8	0
74	16.8	0
75	16.7	0
76	14.9	0
77	16.5	0
78	17.9	0
79	15.7	0
80	17.5	0
81	19.9	0
82	18.9	0
83	17.1	0
84	17.1	0
85	14.8	0
86	18.7	0
87	18.5	0
88	24.1	0
89	24.2	0
90	24.3	0
91	23.0	0
92	22.5	0
93	23.9	0
94	23.9	0
95	22.7	0
96	22.9	0
97	23.1	0
98	21.5	0
99	24.9	0
100	23.3	0
101	23.4	0
102	23.3	0
103	25.0	0
104	24.9	0
105	24.7	0
106	22.6	0
107	19.2	0
108	22.2	0
109	22.9	0
110	22.7	0
111	24.5	0
112	24.2	0
113	23.9	0
114	24.4	0
115	22.7	0
116	23.9	0
117	23.8	0
118	20.8	0
119	21.0	0
120	20.5	0

8458 Villa Serena
SoundPLAN Data - HVAC

121		26.8	0
122		27.8	0
123		23.4	0
124		20.9	0
125		21.5	0
126		21.5	0
127		20.8	0
128		20.8	0
129		25.0	0
130		19.3	0
131		19.4	0
132		20.2	0
133		22.8	0
134		23.1	0
135		23.0	0
136		20.7	0
137		21.9	0
138		22.0	0
139		22.8	0
140		22.9	0
141		20.7	0
142		23.3	0
143		20.1	0
144		17.6	0
145		21.5	0
146		23.6	0
147		23.7	0
148		22.6	0
149		22.7	0
150		21.5	0
13	1.Fl	40.7	0.0
1		10.3	0
2		10.1	0
3		9.3	0
4		10.8	0
5		10.7	0
6		10.3	0
7		8.5	0
8		8.4	0
9		10.0	0
10		6.3	0
11		6.2	0
12		6.6	0
13		13.6	0
14		13.6	0
15		13.3	0
16		13.8	0
17		11.1	0
18		10.3	0
19		10.9	0
20		11.6	0
21		11.7	0
22		10.2	0
23		10.2	0
24		6.4	0
25		6.0	0
26		5.9	0
27		6.0	0
28		7.0	0
29		9.0	0
30		9.3	0
31		7.2	0
32		8.9	0
33		9.1	0
34		8.3	0
35		9.4	0
36		9.6	0
37		8.3	0
38		9.1	0
39		9.3	0
40		12.8	0
41		12.8	0
42		12.8	0
43		12.7	0
44		12.8	0
45		12.8	0
46		10.3	0
47		12.8	0
48		10.3	0
49		15.8	0
50		15.8	0
51		15.8	0
52		12.7	0
53		12.5	0
54		13.4	0
55		10.9	0
56		11.1	0
57		13.6	0
58		12.8	0
59		11.7	0
60		11.8	0
61		11.9	0
62		11.5	0
63		8.4	0
64		12.3	0
65		12.5	0
66		12.6	0
67		15.4	0
68		15.5	0
69		15.6	0
70		13.6	0
71		15.4	0
72		14.4	0
73		12.8	0
74		8.4	0

8458 Villa Serena
SoundPLAN Data - HVAC

75	8.3	0
76	8.7	0
77	9.5	0
78	14.7	0
79	13.5	0
80	13.9	0
81	17.5	0
82	13.2	0
83	14.7	0
84	14.7	0
85	12.6	0
86	16.6	0
87	16.7	0
88	19.3	0
89	20.9	0
90	20.9	0
91	19.4	0
92	18.7	0
93	19.6	0
94	22.6	0
95	19.3	0
96	19.2	0
97	18.7	0
98	18.7	0
99	21.6	0
100	20.5	0
101	20.5	0
102	20.7	0
103	21.7	0
104	21.8	0
105	21.7	0
106	20.0	0
107	20.4	0
108	20.3	0
109	15.6	0
110	15.4	0
111	19.3	0
112	17.6	0
113	21.9	0
114	21.8	0
115	17.0	0
116	20.3	0
117	21.1	0
118	20.3	0
119	20.4	0
120	18.1	0
121	27.3	0
122	27.2	0
123	23.4	0
124	22.8	0
125	22.8	0
126	22.0	0
127	23.8	0
128	23.9	0
129	25.4	0
130	23.6	0
131	23.7	0
132	23.9	0
133	24.5	0
134	24.3	0
135	23.9	0
136	18.2	0
137	22.1	0
138	21.9	0
139	24.0	0
140	24.2	0
141	22.2	0
142	23.9	0
143	23.7	0
144	21.7	0
145	21.7	0
146	23.7	0
147	23.6	0
148	21.3	0
149	21.3	0
150	21.6	0
14	1.FI	38.8 0.0
1		9.0 0
2		8.8 0
3		8.1 0
4		9.5 0
5		9.4 0
6		9.0 0
7		7.2 0
8		7.2 0
9		8.7 0
10		2.9 0
11		2.8 0
12		3.1 0
13		10.5 0
14		9.9 0
15		11.8 0
16		12.4 0
17		9.3 0
18		7.8 0
19		7.5 0
20		7.5 0
21		7.4 0
22		3.9 0
23		3.8 0
24		3.8 0
25		4.0 0
26		3.9 0
27		4.0 0
28		4.8 0

8458 Villa Serena
SoundPLAN Data - HVAC

29	6.5	0
30	6.8	0
31	5.0	0
32	6.4	0
33	6.6	0
34	5.2	0
35	6.1	0
36	6.4	0
37	5.1	0
38	5.7	0
39	6.0	0
40	11.0	0
41	10.9	0
42	10.9	0
43	9.7	0
44	11.6	0
45	11.6	0
46	9.1	0
47	11.6	0
48	9.1	0
49	13.1	0
50	14.5	0
51	14.5	0
52	11.4	0
53	10.5	0
54	10.1	0
55	9.8	0
56	11.6	0
57	11.6	0
58	10.5	0
59	9.7	0
60	10.6	0
61	10.9	0
62	9.4	0
63	6.5	0
64	10.2	0
65	11.7	0
66	10.8	0
67	14.1	0
68	14.1	0
69	13.9	0
70	11.5	0
71	7.0	0
72	6.2	0
73	5.1	0
74	4.9	0
75	4.6	0
76	4.8	0
77	5.5	0
78	5.7	0
79	5.4	0
80	5.7	0
81	10.5	0
82	5.6	0
83	5.9	0
84	8.2	0
85	5.2	0
86	9.5	0
87	12.4	0
88	14.8	0
89	16.1	0
90	15.9	0
91	17.2	0
92	17.0	0
93	15.9	0
94	20.0	0
95	16.9	0
96	17.8	0
97	16.3	0
98	18.6	0
99	18.7	0
100	15.3	0
101	15.8	0
102	15.4	0
103	18.2	0
104	18.3	0
105	18.2	0
106	10.4	0
107	9.4	0
108	9.2	0
109	8.6	0
110	8.3	0
111	8.7	0
112	8.9	0
113	10.0	0
114	10.6	0
115	8.6	0
116	9.4	0
117	15.6	0
118	14.2	0
119	14.7	0
120	12.6	0
121	23.8	0
122	24.4	0
123	21.9	0
124	17.7	0
125	17.8	0
126	21.2	0
127	24.1	0
128	24.4	0
129	20.7	0
130	25.7	0
131	25.9	0
132	26.3	0
133	29.8	0

8458 Villa Serena
SoundPLAN Data - HVAC

134		28.2	0
135		27.7	0
136		19.5	0
137		19.1	0
138		18.1	0
139		18.8	0
140		18.7	0
141		16.7	0
142		14.2	0
143		13.2	0
144		15.1	0
145		12.6	0
146		12.7	0
147		12.6	0
148		17.7	0
149		15.1	0
150		15.6	0
15	1.Fl	34.8	0.0
1		-9.0	0
2		-9.1	0
3		-9.1	0
4		-8.7	0
5		-8.7	0
6		-8.7	0
7		-8.6	0
8		-8.6	0
9		-8.4	0
10		-8.5	0
11		-8.7	0
12		-8.7	0
13		-5.3	0
14		-5.1	0
15		-5.4	0
16		-5.3	0
17		-7.8	0
18		-7.7	0
19		-7.5	0
20		-7.4	0
21		-7.4	0
22		-6.9	0
23		-7.1	0
24		-7.1	0
25		-7.1	0
26		-7.1	0
27		-7.1	0
28		-7.6	0
29		-7.7	0
30		-7.7	0
31		-8.0	0
32		-8.0	0
33		-8.0	0
34		-8.2	0
35		-8.2	0
36		-8.3	0
37		-8.6	0
38		-8.8	0
39		-8.7	0
40		-5.6	0
41		-5.6	0
42		-5.6	0
43		-6.0	0
44		-5.8	0
45		-6.2	0
46		-8.7	0
47		-6.2	0
48		-8.7	0
49		-3.1	0
50		-3.1	0
51		-3.1	0
52		-5.6	0
53		-5.6	0
54		-6.1	0
55		-5.2	0
56		-5.1	0
57		-5.1	0
58		-4.9	0
59		-4.9	0
60		-4.8	0
61		-4.5	0
62		-4.5	0
63		-4.6	0
64		-4.1	0
65		-4.0	0
66		-4.0	0
67		-3.5	0
68		-3.4	0
69		-3.4	0
70		-3.2	0
71		-3.3	0
72		-3.4	0
73		-3.5	0
74		-3.6	0
75		-3.6	0
76		-4.1	0
77		-4.0	0
78		-4.3	0
79		-4.5	0
80		-4.6	0
81		-2.1	0
82		-5.0	0
83		-5.0	0
84		-4.7	0
85		-5.4	0
86		-3.0	0
87		-2.6	0

8458 Villa Serena
SoundPLAN Data - HVAC

88	1.4	0
89	1.6	0
90	1.9	0
91	0.4	0
92	0.5	0
93	0.7	0
94	3.6	0
95	1.1	0
96	1.4	0
97	2.2	0
98	2.3	0
99	2.4	0
100	2.8	0
101	2.9	0
102	3.0	0
103	4.1	0
104	4.1	0
105	3.8	0
106	3.9	0
107	3.8	0
108	3.8	0
109	2.5	0
110	2.5	0
111	2.6	0
112	1.5	0
113	1.2	0
114	1.1	0
115	0.6	0
116	0.5	0
117	0.2	0
118	1.6	0
119	1.8	0
120	-0.6	0
121	13.7	0
122	8.6	0
123	6.1	0
124	12.0	0
125	12.2	0
126	12.3	0
127	11.4	0
128	9.2	0
129	9.3	0
130	16.1	0
131	12.4	0
132	12.8	0
133	25.8	0
134	20.2	0
135	20.5	0
136	28.2	0
137	28.1	0
138	28.1	0
139	14.0	0
140	13.6	0
141	13.1	0
142	10.8	0
143	10.8	0
144	12.6	0
145	8.8	0
146	8.8	0
147	8.3	0
148	8.3	0
149	8.2	0
150	12.9	0
16	1.FI	36.1 0.0
1		-3.8 0
2		-3.8 0
3		-3.8 0
4		-3.9 0
5		-3.9 0
6		-4.2 0
7		-4.5 0
8		-4.2 0
9		-3.5 0
10		-2.4 0
11		-2.4 0
12		-2.3 0
13		3.9 0
14		3.8 0
15		3.0 0
16		1.0 0
17		-1.8 0
18		-1.9 0
19		0.4 0
20		0.4 0
21		0.4 0
22		-1.8 0
23		-1.6 0
24		-1.4 0
25		1.9 0
26		1.9 0
27		2.1 0
28		4.1 0
29		5.8 0
30		9.2 0
31		6.6 0
32		8.3 0
33		8.5 0
34		6.7 0
35		7.7 0
36		8.0 0
37		7.1 0
38		5.0 0
39		6.9 0
40		6.3 0
41		8.5 0

8458 Villa Serena
SoundPLAN Data - HVAC

42	8.4	0
43	8.2	0
44	1.7	0
45	1.7	0
46	-1.6	0
47	0.8	0
48	-1.9	0
49	9.8	0
50	12.4	0
51	12.3	0
52	3.7	0
53	3.3	0
54	2.8	0
55	2.2	0
56	2.3	0
57	1.7	0
58	0.2	0
59	0.2	0
60	0.1	0
61	0.3	0
62	0.0	0
63	-0.4	0
64	0.8	0
65	0.7	0
66	0.5	0
67	0.8	0
68	0.2	0
69	0.2	0
70	0.9	0
71	1.5	0
72	1.3	0
73	2.8	0
74	3.6	0
75	3.6	0
76	9.9	0
77	11.1	0
78	11.7	0
79	9.7	0
80	10.1	0
81	12.5	0
82	9.0	0
83	9.3	0
84	9.4	0
85	8.0	0
86	11.9	0
87	11.2	0
88	8.9	0
89	13.2	0
90	7.2	0
91	4.0	0
92	3.9	0
93	4.0	0
94	7.8	0
95	5.3	0
96	5.5	0
97	6.4	0
98	6.4	0
99	6.5	0
100	6.2	0
101	6.2	0
102	6.1	0
103	6.6	0
104	7.6	0
105	7.4	0
106	10.5	0
107	9.8	0
108	16.5	0
109	11.0	0
110	12.1	0
111	17.2	0
112	16.1	0
113	16.5	0
114	16.4	0
115	15.3	0
116	15.9	0
117	15.8	0
118	13.2	0
119	11.7	0
120	8.5	0
121	14.2	0
122	15.3	0
123	15.3	0
124	16.1	0
125	16.2	0
126	16.2	0
127	16.0	0
128	13.1	0
129	11.0	0
130	17.0	0
131	17.2	0
132	13.0	0
133	14.4	0
134	15.3	0
135	15.8	0
136	23.5	0
137	25.9	0
138	25.6	0
139	22.3	0
140	22.2	0
141	21.8	0
142	21.6	0
143	21.4	0
144	23.4	0
145	20.3	0
146	20.8	0

8458 Villa Serena
SoundPLAN Data - HVAC

147		20.6	0
148		21.5	0
149		21.1	0
150		19.1	0
17	1.FI	38.4	0.0
1		-1.7	0
2		-1.8	0
3		-1.8	0
4		-1.9	0
5		-1.9	0
6		-2.0	0
7		0.4	0
8		0.4	0
9		1.3	0
10		0.7	0
11		0.7	0
12		0.9	0
13		7.7	0
14		7.7	0
15		7.7	0
16		5.5	0
17		2.9	0
18		2.7	0
19		5.3	0
20		5.2	0
21		5.3	0
22		2.6	0
23		2.5	0
24		2.5	0
25		3.4	0
26		3.8	0
27		4.3	0
28		8.1	0
29		10.1	0
30		10.2	0
31		9.3	0
32		10.4	0
33		10.6	0
34		8.5	0
35		9.4	0
36		9.6	0
37		8.8	0
38		6.7	0
39		8.5	0
40		10.2	0
41		11.8	0
42		11.8	0
43		8.1	0
44		5.5	0
45		5.3	0
46		2.7	0
47		5.1	0
48		2.5	0
49		11.7	0
50		12.2	0
51		12.2	0
52		11.7	0
53		11.7	0
54		11.8	0
55		6.3	0
56		6.4	0
57		6.5	0
58		3.0	0
59		3.0	0
60		3.0	0
61		3.3	0
62		3.0	0
63		2.3	0
64		3.1	0
65		3.0	0
66		2.8	0
67		2.6	0
68		2.1	0
69		2.0	0
70		3.4	0
71		3.9	0
72		3.8	0
73		13.3	0
74		13.4	0
75		13.3	0
76		11.7	0
77		13.0	0
78		13.2	0
79		14.2	0
80		14.3	0
81		13.7	0
82		12.1	0
83		12.0	0
84		12.4	0
85		11.1	0
86		15.3	0
87		13.4	0
88		13.4	0
89		12.2	0
90		10.6	0
91		8.0	0
92		6.7	0
93		6.9	0
94		14.8	0
95		12.5	0
96		12.6	0
97		14.2	0
98		14.5	0
99		14.8	0
100		15.9	0

8458 Villa Serena
SoundPLAN Data - HVAC

101	14.7	0
102	14.8	0
103	9.0	0
104	9.8	0
105	10.2	0
106	23.0	0
107	22.5	0
108	21.1	0
109	14.5	0
110	19.8	0
111	20.9	0
112	19.6	0
113	19.5	0
114	19.3	0
115	18.6	0
116	18.7	0
117	18.5	0
118	19.7	0
119	15.3	0
120	14.5	0
121	16.9	0
122	17.8	0
123	19.4	0
124	18.2	0
125	18.2	0
126	18.5	0
127	17.7	0
128	17.7	0
129	15.4	0
130	18.0	0
131	17.9	0
132	17.8	0
133	14.9	0
134	16.5	0
135	17.0	0
136	22.2	0
137	22.2	0
138	25.0	0
139	24.7	0
140	24.7	0
141	23.2	0
142	24.8	0
143	24.8	0
144	24.4	0
145	24.3	0
146	24.7	0
147	24.6	0
148	25.4	0
149	19.8	0
150	19.5	0
18	1.FI	39.6 0.0
1		2.2 0
2		2.2 0
3		2.2 0
4		2.1 0
5		2.0 0
6		2.0 0
7		0.9 0
8		0.9 0
9		1.7 0
10		2.1 0
11		2.6 0
12		2.9 0
13		8.6 0
14		8.6 0
15		8.5 0
16		6.3 0
17		3.3 0
18		3.2 0
19		5.7 0
20		5.8 0
21		5.8 0
22		3.4 0
23		3.6 0
24		3.6 0
25		5.3 0
26		6.3 0
27		6.4 0
28		9.7 0
29		13.0 0
30		12.9 0
31		10.9 0
32		12.0 0
33		12.1 0
34		11.8 0
35		12.2 0
36		11.9 0
37		10.2 0
38		10.5 0
39		11.5 0
40		11.9 0
41		12.7 0
42		12.8 0
43		9.6 0
44		7.1 0
45		6.9 0
46		3.7 0
47		6.2 0
48		3.5 0
49		13.9 0
50		13.4 0
51		13.5 0
52		9.6 0
53		9.7 0
54		10.0 0

8458 Villa Serena
SoundPLAN Data - HVAC

55	13.4	0
56	13.5	0
57	13.5	0
58	9.9	0
59	9.8	0
60	9.8	0
61	10.3	0
62	9.6	0
63	8.4	0
64	12.5	0
65	12.4	0
66	11.6	0
67	9.2	0
68	7.8	0
69	7.7	0
70	5.7	0
71	6.1	0
72	6.3	0
73	16.4	0
74	16.4	0
75	16.4	0
76	16.7	0
77	17.3	0
78	17.2	0
79	16.6	0
80	16.1	0
81	17.7	0
82	16.0	0
83	16.0	0
84	13.8	0
85	13.1	0
86	16.4	0
87	16.6	0
88	16.5	0
89	16.9	0
90	16.5	0
91	15.7	0
92	16.9	0
93	16.3	0
94	16.2	0
95	17.8	0
96	16.4	0
97	18.0	0
98	18.0	0
99	15.9	0
100	19.6	0
101	19.6	0
102	19.6	0
103	16.3	0
104	16.7	0
105	17.4	0
106	21.7	0
107	21.7	0
108	25.5	0
109	25.2	0
110	25.4	0
111	25.5	0
112	24.3	0
113	24.0	0
114	23.9	0
115	23.1	0
116	23.0	0
117	22.6	0
118	22.3	0
119	22.2	0
120	19.3	0
121	19.4	0
122	16.5	0
123	20.0	0
124	18.7	0
125	18.1	0
126	17.8	0
127	14.4	0
128	12.7	0
129	12.3	0
130	13.9	0
131	13.6	0
132	13.4	0
133	12.1	0
134	15.9	0
135	16.0	0
136	18.8	0
137	21.0	0
138	21.6	0
139	19.9	0
140	21.3	0
141	21.3	0
142	21.8	0
143	22.1	0
144	21.7	0
145	24.1	0
146	23.0	0
147	22.2	0
148	24.6	0
149	24.6	0
150	24.3	0
19	1.FI	39.4
		0.0
1		1.9
2		1.9
3		1.7
4		1.7
5		1.6
6		1.6
7		2.3
8		2.3

8458 Villa Serena
SoundPLAN Data - HVAC

9	3.0	0
10	4.2	0
11	4.2	0
12	4.3	0
13	12.0	0
14	9.5	0
15	9.2	0
16	8.9	0
17	4.9	0
18	4.8	0
19	6.7	0
20	6.8	0
21	6.8	0
22	5.0	0
23	5.0	0
24	5.7	0
25	7.8	0
26	7.8	0
27	14.1	0
28	14.1	0
29	14.8	0
30	14.8	0
31	12.7	0
32	13.6	0
33	12.6	0
34	13.6	0
35	13.6	0
36	13.3	0
37	11.6	0
38	12.3	0
39	13.2	0
40	13.6	0
41	12.8	0
42	13.6	0
43	14.6	0
44	11.2	0
45	7.9	0
46	5.5	0
47	7.9	0
48	4.3	0
49	15.8	0
50	14.4	0
51	15.6	0
52	13.7	0
53	10.5	0
54	9.7	0
55	10.1	0
56	10.1	0
57	10.1	0
58	13.7	0
59	9.2	0
60	9.4	0
61	10.7	0
62	10.5	0
63	9.9	0
64	16.4	0
65	12.8	0
66	12.7	0
67	21.7	0
68	21.9	0
69	22.0	0
70	19.9	0
71	20.9	0
72	20.7	0
73	20.8	0
74	20.9	0
75	20.9	0
76	20.6	0
77	20.5	0
78	19.7	0
79	19.2	0
80	18.2	0
81	21.8	0
82	18.8	0
83	18.8	0
84	18.9	0
85	18.0	0
86	20.5	0
87	18.6	0
88	14.2	0
89	17.6	0
90	17.4	0
91	16.5	0
92	18.6	0
93	16.7	0
94	15.7	0
95	17.8	0
96	17.7	0
97	18.3	0
98	19.0	0
99	16.6	0
100	17.6	0
101	17.4	0
102	17.3	0
103	17.7	0
104	17.8	0
105	17.9	0
106	21.6	0
107	23.4	0
108	23.6	0
109	23.9	0
110	24.6	0
111	22.8	0
112	23.9	0
113	24.5	0

8458 Villa Serena
SoundPLAN Data - HVAC

114	24.6	0
115	25.3	0
116	25.5	0
117	25.6	0
118	22.2	0
119	22.4	0
120	21.4	0
121	7.8	0
122	7.7	0
123	7.9	0
124	9.2	0
125	9.0	0
126	8.8	0
127	7.4	0
128	7.2	0
129	9.6	0
130	6.3	0
131	6.7	0
132	6.7	0
133	9.1	0
134	13.9	0
135	13.9	0
136	12.1	0
137	13.4	0
138	19.0	0
139	17.7	0
140	17.7	0
141	14.5	0
142	18.2	0
143	17.9	0
144	12.5	0
145	16.6	0
146	17.3	0
147	18.8	0
148	19.0	0
149	19.3	0
150	19.4	0
20	1.FI	39.9 0.0
1		3.8 0
2		3.9 0
3		3.9 0
4		3.1 0
5		3.1 0
6		3.1 0
7		4.0 0
8		4.0 0
9		4.6 0
10		7.7 0
11		7.8 0
12		11.6 0
13		16.9 0
14		16.9 0
15		16.9 0
16		12.0 0
17		6.5 0
18		6.5 0
19		9.8 0
20		9.9 0
21		10.1 0
22		7.6 0
23		7.8 0
24		9.1 0
25		17.5 0
26		17.6 0
27		17.7 0
28		17.2 0
29		17.5 0
30		17.4 0
31		15.5 0
32		17.0 0
33		16.3 0
34		16.2 0
35		15.7 0
36		15.2 0
37		15.6 0
38		14.8 0
39		15.6 0
40		14.4 0
41		14.5 0
42		14.8 0
43		12.7 0
44		12.4 0
45		12.4 0
46		8.6 0
47		10.8 0
48		8.5 0
49		22.5 0
50		22.2 0
51		20.0 0
52		14.0 0
53		13.2 0
54		13.1 0
55		16.6 0
56		17.2 0
57		15.6 0
58		16.0 0
59		18.5 0
60		16.6 0
61		18.3 0
62		17.1 0
63		16.4 0
64		19.5 0
65		20.3 0
66		20.4 0
67		16.5 0

8458 Villa Serena
SoundPLAN Data - HVAC

68	16.5	0
69	12.6	0
70	19.4	0
71	19.9	0
72	20.4	0
73	22.7	0
74	23.5	0
75	24.8	0
76	26.1	0
77	25.9	0
78	25.6	0
79	23.5	0
80	24.5	0
81	26.6	0
82	23.5	0
83	23.4	0
84	23.2	0
85	22.6	0
86	24.4	0
87	23.7	0
88	24.6	0
89	23.0	0
90	21.4	0
91	16.3	0
92	18.2	0
93	15.9	0
94	9.7	0
95	12.3	0
96	15.2	0
97	10.4	0
98	10.3	0
99	10.2	0
100	9.8	0
101	9.5	0
102	9.3	0
103	15.3	0
104	15.3	0
105	14.3	0
106	13.1	0
107	15.9	0
108	16.3	0
109	20.6	0
110	21.0	0
111	18.8	0
112	19.4	0
113	19.7	0
114	19.7	0
115	20.5	0
116	20.7	0
117	20.8	0
118	22.2	0
119	22.0	0
120	22.2	0
121	5.4	0
122	5.3	0
123	5.9	0
124	6.3	0
125	6.3	0
126	6.9	0
127	4.9	0
128	5.7	0
129	8.2	0
130	5.2	0
131	5.1	0
132	5.0	0
133	6.0	0
134	7.7	0
135	8.0	0
136	12.0	0
137	10.3	0
138	10.2	0
139	10.0	0
140	9.5	0
141	9.1	0
142	10.9	0
143	10.0	0
144	8.9	0
145	15.0	0
146	13.4	0
147	13.5	0
148	14.8	0
149	10.2	0
150	10.3	0
21	1.FI	39.9 0.0
1		6.0 0
2		5.8 0
3		5.9 0
4		6.6 0
5		6.7 0
6		6.8 0
7		7.0 0
8		7.2 0
9		7.8 0
10		9.8 0
11		9.7 0
12		15.3 0
13		18.5 0
14		18.2 0
15		17.9 0
16		14.5 0
17		12.2 0
18		10.4 0
19		15.6 0
20		15.9 0
21		16.1 0

8458 Villa Serena
SoundPLAN Data - HVAC

22	21.7	0
23	21.9	0
24	21.9	0
25	22.9	0
26	22.9	0
27	23.0	0
28	21.4	0
29	21.4	0
30	21.3	0
31	20.2	0
32	19.9	0
33	20.0	0
34	19.7	0
35	17.9	0
36	19.2	0
37	18.5	0
38	18.1	0
39	18.3	0
40	17.4	0
41	16.6	0
42	15.9	0
43	14.1	0
44	14.1	0
45	13.9	0
46	10.9	0
47	13.0	0
48	12.9	0
49	23.2	0
50	22.3	0
51	20.7	0
52	17.0	0
53	16.8	0
54	21.5	0
55	20.7	0
56	19.8	0
57	19.8	0
58	17.0	0
59	18.9	0
60	16.8	0
61	19.7	0
62	19.2	0
63	16.8	0
64	18.4	0
65	18.3	0
66	18.2	0
67	11.0	0
68	11.5	0
69	11.6	0
70	16.7	0
71	15.8	0
72	16.8	0
73	17.8	0
74	20.9	0
75	22.9	0
76	23.0	0
77	23.4	0
78	23.5	0
79	24.2	0
80	24.3	0
81	24.4	0
82	25.2	0
83	25.3	0
84	24.4	0
85	26.1	0
86	26.3	0
87	25.2	0
88	17.7	0
89	11.2	0
90	10.4	0
91	11.7	0
92	11.6	0
93	15.0	0
94	9.1	0
95	10.4	0
96	10.5	0
97	13.7	0
98	13.6	0
99	13.3	0
100	13.0	0
101	12.7	0
102	12.6	0
103	14.1	0
104	11.7	0
105	11.1	0
106	10.7	0
107	13.5	0
108	14.7	0
109	15.8	0
110	18.1	0
111	15.5	0
112	16.0	0
113	16.2	0
114	15.8	0
115	16.8	0
116	16.9	0
117	16.7	0
118	17.0	0
119	17.0	0
120	17.7	0
121	3.6	0
122	3.8	0
123	4.7	0
124	5.1	0
125	4.9	0
126	4.8	0

8458 Villa Serena
SoundPLAN Data - HVAC

127	4.0	0
128	3.8	0
129	6.7	0
130	4.1	0
131	4.1	0
132	4.0	0
133	4.7	0
134	6.1	0
135	7.3	0
136	9.7	0
137	7.9	0
138	8.2	0
139	8.9	0
140	8.2	0
141	6.5	0
142	9.5	0
143	8.2	0
144	5.9	0
145	11.5	0
146	11.5	0
147	11.4	0
148	7.7	0
149	7.4	0
150	7.3	0
22	1.FI 40.4	0.0
1	6.8	0
2	6.8	0
3	6.9	0
4	7.4	0
5	7.5	0
6	7.5	0
7	8.2	0
8	8.4	0
9	9.0	0
10	10.7	0
11	10.9	0
12	16.7	0
13	17.0	0
14	17.7	0
15	18.1	0
16	16.6	0
17	19.0	0
18	19.1	0
19	20.1	0
20	20.2	0
21	18.1	0
22	23.8	0
23	24.1	0
24	24.3	0
25	25.7	0
26	25.6	0
27	25.9	0
28	24.3	0
29	24.1	0
30	23.9	0
31	22.6	0
32	22.7	0
33	22.5	0
34	21.2	0
35	21.7	0
36	21.5	0
37	20.7	0
38	20.5	0
39	20.4	0
40	18.7	0
41	18.0	0
42	17.2	0
43	17.6	0
44	17.7	0
45	14.7	0
46	12.1	0
47	13.9	0
48	13.6	0
49	25.3	0
50	25.2	0
51	25.0	0
52	28.8	0
53	23.3	0
54	23.0	0
55	18.6	0
56	17.6	0
57	15.5	0
58	17.2	0
59	19.2	0
60	17.1	0
61	17.0	0
62	18.0	0
63	15.6	0
64	15.6	0
65	16.8	0
66	16.7	0
67	9.4	0
68	9.4	0
69	9.4	0
70	14.6	0
71	12.4	0
72	17.4	0
73	15.3	0
74	16.5	0
75	17.6	0
76	20.5	0
77	20.7	0
78	21.0	0
79	21.6	0
80	21.7	0

8458 Villa Serena
SoundPLAN Data - HVAC

81	21.1	0
82	21.1	0
83	21.7	0
84	22.9	0
85	23.9	0
86	24.2	0
87	24.0	0
88	9.2	0
89	8.4	0
90	8.0	0
91	9.6	0
92	7.3	0
93	9.0	0
94	6.3	0
95	7.3	0
96	7.4	0
97	13.5	0
98	13.3	0
99	13.2	0
100	12.8	0
101	12.7	0
102	12.6	0
103	14.3	0
104	14.3	0
105	14.3	0
106	10.2	0
107	12.6	0
108	14.1	0
109	14.5	0
110	17.0	0
111	14.2	0
112	14.8	0
113	15.0	0
114	14.3	0
115	15.4	0
116	15.5	0
117	15.1	0
118	15.2	0
119	15.1	0
120	15.9	0
121	3.5	0
122	3.6	0
123	4.8	0
124	5.5	0
125	5.5	0
126	5.4	0
127	4.5	0
128	4.5	0
129	6.9	0
130	3.2	0
131	3.3	0
132	4.6	0
133	4.8	0
134	6.8	0
135	6.8	0
136	9.1	0
137	9.7	0
138	7.6	0
139	7.0	0
140	6.4	0
141	5.7	0
142	7.5	0
143	6.3	0
144	5.4	0
145	11.4	0
146	8.8	0
147	8.8	0
148	6.8	0
149	6.6	0
150	6.2	0
23	1.Fl	39.9 0.0
1		7.5 0
2		7.5 0
3		7.5 0
4		10.5 0
5		10.7 0
6		10.7 0
7		9.2 0
8		9.5 0
9		12.3 0
10		12.1 0
11		12.5 0
12		18.8 0
13		17.7 0
14		17.3 0
15		17.0 0
16		18.0 0
17		16.9 0
18		17.8 0
19		20.0 0
20		20.1 0
21		18.0 0
22		18.3 0
23		18.4 0
24		18.6 0
25		22.7 0
26		23.6 0
27		24.5 0
28		26.3 0
29		26.1 0
30		26.2 0
31		25.0 0
32		25.1 0
33		24.9 0
34		23.0 0

8458 Villa Serena
SoundPLAN Data - HVAC

35	23.9	0
36	23.8	0
37	22.8	0
38	22.8	0
39	22.5	0
40	23.3	0
41	21.4	0
42	18.8	0
43	17.8	0
44	17.4	0
45	15.7	0
46	13.1	0
47	15.2	0
48	14.4	0
49	23.2	0
50	23.1	0
51	22.9	0
52	26.3	0
53	24.2	0
54	22.4	0
55	17.9	0
56	19.0	0
57	18.6	0
58	15.3	0
59	17.4	0
60	14.9	0
61	11.5	0
62	11.1	0
63	13.2	0
64	8.5	0
65	14.4	0
66	14.3	0
67	8.3	0
68	8.3	0
69	8.1	0
70	12.8	0
71	11.8	0
72	16.1	0
73	15.7	0
74	15.2	0
75	15.7	0
76	18.7	0
77	18.7	0
78	17.3	0
79	19.6	0
80	19.7	0
81	16.6	0
82	18.9	0
83	20.7	0
84	20.7	0
85	21.6	0
86	21.3	0
87	21.4	0
88	7.7	0
89	7.3	0
90	6.9	0
91	6.6	0
92	6.7	0
93	6.7	0
94	4.6	0
95	5.6	0
96	5.7	0
97	7.6	0
98	8.4	0
99	8.2	0
100	8.0	0
101	7.9	0
102	7.8	0
103	8.7	0
104	14.2	0
105	14.2	0
106	9.0	0
107	11.6	0
108	12.8	0
109	13.9	0
110	16.1	0
111	13.2	0
112	13.9	0
113	14.0	0
114	13.2	0
115	14.4	0
116	14.5	0
117	13.9	0
118	13.8	0
119	13.8	0
120	14.6	0
121	3.2	0
122	2.3	0
123	3.4	0
124	5.7	0
125	5.7	0
126	5.7	0
127	4.7	0
128	4.7	0
129	7.2	0
130	3.6	0
131	3.7	0
132	3.8	0
133	5.2	0
134	7.4	0
135	7.4	0
136	8.6	0
137	9.5	0
138	7.4	0
139	6.2	0

8458 Villa Serena
SoundPLAN Data - HVAC

140		5.7	0
141		5.3	0
142		7.3	0
143		5.9	0
144		4.4	0
145		10.4	0
146		8.6	0
147		8.5	0
148		6.1	0
149		5.9	0
150		5.4	0
24	1.Fl	38.9	0.0
1		15.2	0
2		15.7	0
3		15.7	0
4		14.7	0
5		14.7	0
6		14.5	0
7		14.6	0
8		14.9	0
9		13.1	0
10		18.1	0
11		18.6	0
12		19.1	0
13		19.2	0
14		14.7	0
15		14.2	0
16		16.8	0
17		18.7	0
18		18.7	0
19		19.2	0
20		18.5	0
21		17.7	0
22		17.9	0
23		19.7	0
24		19.5	0
25		22.6	0
26		22.9	0
27		23.1	0
28		23.0	0
29		23.3	0
30		22.3	0
31		24.1	0
32		24.7	0
33		24.8	0
34		25.4	0
35		25.6	0
36		25.7	0
37		26.0	0
38		26.3	0
39		26.2	0
40		23.6	0
41		22.5	0
42		21.7	0
43		14.5	0
44		13.5	0
45		13.1	0
46		16.2	0
47		15.9	0
48		15.8	0
49		18.4	0
50		18.2	0
51		18.2	0
52		13.0	0
53		11.9	0
54		11.6	0
55		9.9	0
56		9.8	0
57		9.7	0
58		9.2	0
59		9.0	0
60		9.6	0
61		9.5	0
62		9.5	0
63		16.2	0
64		8.5	0
65		13.1	0
66		12.9	0
67		6.4	0
68		6.4	0
69		6.3	0
70		11.0	0
71		8.7	0
72		10.9	0
73		13.9	0
74		13.1	0
75		13.8	0
76		15.9	0
77		15.5	0
78		14.4	0
79		16.6	0
80		16.3	0
81		11.4	0
82		16.4	0
83		17.3	0
84		14.3	0
85		17.9	0
86		16.9	0
87		12.7	0
88		5.7	0
89		5.1	0
90		4.8	0
91		5.0	0
92		5.1	0
93		5.3	0

8458 Villa Serena
SoundPLAN Data - HVAC

94	3.5	0
95	4.3	0
96	5.1	0
97	6.9	0
98	7.1	0
99	7.0	0
100	6.9	0
101	6.8	0
102	6.7	0
103	7.1	0
104	9.1	0
105	9.9	0
106	8.8	0
107	9.8	0
108	11.7	0
109	11.9	0
110	13.8	0
111	11.5	0
112	12.2	0
113	12.1	0
114	11.3	0
115	12.7	0
116	10.6	0
117	9.2	0
118	11.6	0
119	7.9	0
120	9.1	0
121	1.1	0
122	1.3	0
123	2.7	0
124	3.7	0
125	3.7	0
126	3.7	0
127	2.8	0
128	2.8	0
129	5.4	0
130	1.8	0
131	2.0	0
132	2.0	0
133	3.6	0
134	4.2	0
135	6.5	0
136	8.1	0
137	8.3	0
138	6.2	0
139	5.4	0
140	4.8	0
141	4.0	0
142	6.1	0
143	4.6	0
144	3.3	0
145	9.7	0
146	7.4	0
147	7.2	0
148	4.2	0
149	4.2	0
150	3.4	0
25	1.FI	37.5 0.0
1		21.7 0
2		21.6 0
3		19.0 0
4		17.2 0
5		17.2 0
6		17.1 0
7		15.4 0
8		15.5 0
9		17.7 0
10		16.3 0
11		16.8 0
12		16.4 0
13		12.8 0
14		10.9 0
15		10.6 0
16		10.8 0
17		11.1 0
18		15.3 0
19		15.0 0
20		12.9 0
21		13.2 0
22		15.4 0
23		16.6 0
24		14.7 0
25		18.5 0
26		20.4 0
27		20.6 0
28		19.1 0
29		18.3 0
30		19.2 0
31		19.8 0
32		20.4 0
33		20.6 0
34		21.0 0
35		21.3 0
36		21.5 0
37		21.7 0
38		22.4 0
39		22.6 0
40		23.6 0
41		25.3 0
42		25.3 0
43		22.5 0
44		20.6 0
45		22.2 0
46		22.0 0
47		22.1 0

8458 Villa Serena
SoundPLAN Data - HVAC

48	21.8	0
49	15.4	0
50	15.3	0
51	10.8	0
52	9.7	0
53	8.8	0
54	8.6	0
55	10.6	0
56	10.5	0
57	10.3	0
58	8.9	0
59	8.8	0
60	9.7	0
61	7.6	0
62	7.6	0
63	11.4	0
64	6.8	0
65	8.5	0
66	12.7	0
67	5.1	0
68	5.2	0
69	5.3	0
70	11.4	0
71	8.9	0
72	11.3	0
73	15.1	0
74	13.0	0
75	13.1	0
76	14.0	0
77	13.5	0
78	12.6	0
79	14.6	0
80	14.1	0
81	9.5	0
82	14.4	0
83	15.1	0
84	12.3	0
85	15.6	0
86	14.3	0
87	10.7	0
88	4.5	0
89	4.3	0
90	4.2	0
91	5.2	0
92	5.4	0
93	5.4	0
94	2.6	0
95	4.1	0
96	4.5	0
97	7.1	0
98	6.9	0
99	6.9	0
100	6.8	0
101	6.7	0
102	6.6	0
103	7.1	0
104	9.9	0
105	9.9	0
106	8.6	0
107	9.5	0
108	11.0	0
109	11.3	0
110	12.8	0
111	10.2	0
112	10.9	0
113	10.8	0
114	10.0	0
115	11.4	0
116	9.7	0
117	8.1	0
118	10.1	0
119	6.8	0
120	8.2	0
121	0.8	0
122	0.8	0
123	2.5	0
124	4.1	0
125	4.1	0
126	4.2	0
127	3.1	0
128	3.1	0
129	5.8	0
130	2.1	0
131	2.3	0
132	2.4	0
133	3.7	0
134	4.4	0
135	7.1	0
136	8.4	0
137	8.5	0
138	6.0	0
139	5.0	0
140	4.3	0
141	3.6	0
142	5.6	0
143	3.9	0
144	2.6	0
145	9.3	0
146	6.9	0
147	6.7	0
148	3.3	0
149	3.4	0
150	2.7	0