

September 15, 2021

Mr. Angel Orozco Real Estate Development Associate 8815 Research Drive Irvine, CA 92618

SUBJECT: MARRIOT AC/RESIDENCE INN HOTEL NOISE ASSESSMENT

Dear Mr. Angel Orozco:

Urban Crossroads, Inc. is pleased to provide the following Noise Assessment for the Marriot AC/Residence Inn Hotel development (referred to as **Project**) located at south of Mission Inn Avenue between Lemon Street and Lime Street in the City of Riverside. The proposed Project is to consist of an 8-story dual branded hotel as shown on Exhibit A. This Noise Assessment has been prepared to assess the potential Project-related operational noise source activities that are expected to include roof-top mechanical equipment, pool activity and outdoor areas In addition, this Noise Assessment considers the potential noise level increases associated with off-site construction traffic noise.

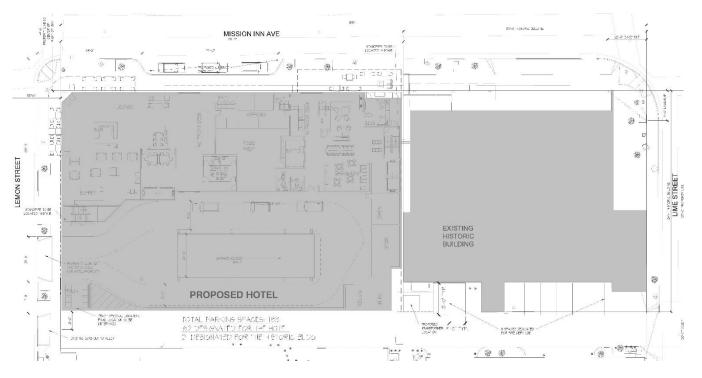
BACKGROUND

On December 24, 2020, Urban Crossroads, Inc. prepared the Marriot AC/Residence Inn Hotel Noise & Vibration Impact Analysis report. This report focused on the potential Project related construction noise and vibration level impacts. The report determined that the noise impacts due to construction noise is *less than significant* at all receiver locations. In addition, no pile driving is planned during Project construction. Drilling will be used as Project design feature to minimize the potential noise and vibration impacts. Therefore, the vibration impacts due to the Project construction activities are considered *less than significant*.

EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, 24-hour noise level measurements were taken at five locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Exhibit B provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Tuesday, August 31, 2021. Appendix A includes study area photos.





MEASUREMENT PROCEDURE AND CRITERIA

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the daytime and nighttime hourly noise levels and calculate the 24-hour CNEL. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (1)

NOISE MEASUREMENT LOCATIONS

The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the Project site. Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent every part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects.



EXHIBIT B: NOISE LEVEL MEASUREMENT LOCATIONS







This is demonstrated in the Caltrans general site location guidelines which indicate that, sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources. (2) Further, FTA guidance states, that it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the project area. Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community. (3)

Based on recommendations of Caltrans and the FTA, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence. (4) In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after Project noise levels and is necessary to assess potential noise impacts due to the Project's contribution to the ambient noise levels.

NOISE MEASUREMENT RESULTS

The noise measurements presented below focus on the average or equivalent sound levels (L_{eq}). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 1 identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location. Appendix B provides a summary of the existing hourly ambient noise levels.

TABLE 1: AMBIENT NOISE LEVEL MEASUREMENTS

Measurement Location ¹	Description	Energy Ave Level (d	•
Location-		Daytime	Nighttime
L1	Located northeast of the Project site on Mission Inn Avenue by the Riverside Municipal Auditorium at 3485 Mission Inn Avenue.	64.3	59.8
L2	Located east of the Project site on Lime Street at 3398 Mission Inn Avenue.	67.4	63.8
L3	Located southwest of the Project site near Life Arts Center at 644 Lemon Street.	61.7	59.1

Measurement Location ¹	Description	Energy Ave Level (d	erage Noise BA L _{eq}) ²
Location		Daytime	Nighttime
L4	Located west of the Project site near First Congregational Church at 3504 Mission Inn Avenue.	56.6	53.7
L5	Located north of the Project site near Universalist Unitarian Church of Riverside at 3525 Mission Inn Avenue.	59.8	55.2

¹ See Exhibit B for the noise level measurement locations.

RECEIVER LOCATIONS

To assess the potential long-term operational noise impacts, the following five receiver locations, as shown on Exhibit C, were identified as representative locations for analysis. These are the same receiver location used in the December 24, 2020, Marriot AC/Residence Inn Hotel Noise & Vibration Impact Analysis report.

All distances are measured from the Project site boundary to the areas of frequent human use since it is unlikely that humans will be frequently occupying the property line abutting the right-of-way boundary. The selection of receiver locations is based on FHWA guidelines and is consistent with additional guidance provided by Caltrans and the FTA. Other land uses in the Project study area that are located at greater distances than those identified in this noise study will experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures. Distance is measured in a straight line from the project boundary to each receiver location.

NOISE PREDICTION MODEL

To fully describe the exterior operational noise levels from the Project, Urban Crossroads, Inc. developed a noise prediction model using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA can analyze multiple types of noise sources using the spatially accurate Project site plan, georeferenced Nearmap aerial imagery, topography, buildings, and barriers in its calculations to predict outdoor noise levels.



² Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are included in Appendix B.

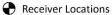
[&]quot;Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

EXHIBIT C: RECEIVER LOCATIONS





LEGEND:



Distance from receiver to Project site boundary (in feet)



Using the ISO 9613-2 protocol, CadnaA will calculate the distance from each noise source to the noise receiver locations, using the ground absorption, distance, and barrier/building attenuation inputs to provide a summary of noise level at each receiver and the partial noise level contributions by noise source. Consistent with the ISO 9613-2 protocol, the CadnaA noise prediction model relies on the reference sound power level (Lw) to describe individual noise sources. The operational noise level calculations provided in this noise study account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.5 was used in the noise analysis to account for mixed ground representing a combination of hard and soft surfaces. Appendix D includes the detailed noise model inputs used to estimate the Project operational noise levels presented in this section.

OPERATIONAL NOISE ANALYSIS

This section analyzes the potential stationary-source operational noise impacts at the nearby receiver locations resulting from the operation of the proposed Marriot AC/Residence Inn Hotel Project. This operational noise analysis is intended to describe noise level impacts associated with the expected typical of daytime and nighttime activities at the Project site. The on-site Project-related noise sources are expected to include roof-top mechanical equipment, pool activity and outdoor areas

OPERATIONAL NOISE STANDARDS

To control unnecessary, excessive and/or annoying noise, the City of Riverside has adopted exterior and interior sound level limits in the Noise Control section (Title 7) of the Municipal Code. Title 7 outlines exterior noise level standards for affected land uses. Title 7 relies on the use of percentile noise descriptors to ensure that the duration of the noise source is fully considered. However, due to the relatively constant intensity of the Project noise activities, the L_{50} or average L_{eq} noise level metrics best describe the Project related operational noise source activities. The L_{eq} noise level metric accounts for noise fluctuations over time by averaging the louder and quieter events and giving more weight to the louder events. In addition, due to the mathematical relationship between the median (L_{50}) and the mean (L_{eq}), the L_{eq} will always be larger than or equal to the L_{50} . The more variable the noise becomes, the larger the L_{eq} becomes in comparison to the L_{50} . Therefore, this noise study conservatively relies on the average L_{eq} sound level limits to describe the Project noise levels.

For noise-sensitive residential properties, Table 7.25.010A identifies exterior noise standards for the daytime (7:00 a.m. to 10:00 p.m.) hours of 55 dBA L_{50} and 45 dBA L_{50} during the nighttime (10:00 p.m. to 7:00 a.m.) hours as shown on Table 2. Table 2 identifies an anytime exterior noise level standard of 65 dBA L_{50} for office/commercial land uses, 70 dBA L_{50} for industrial land uses, 60 dBA L_{50} for community support, 65 dBA L_{50} for public recreation facility and 70 dBA L_{50} for nonurban land use. A review of the exterior noise level standards indicates that the nearest non-residential receivers are best described as community support land uses with an anytime exterior noise level standard of 60 dBA L_{50}



TABLE 2: EXTERIOR NOISE STANDARDS

			Exterior No	ise Level Stanc	lards (dBA)¹	
Land Use	Time Period	L ₅₀ (30 mins)	L ₂₅ (15 mins)	L ₈ (5 mins)	L ₂ (1 min)	L _{max} (0 min)
Residential	Daytime	55	60	65	70	75
Residential	Nighttime	45	50	55	60	65
Office/Commercial	Any time	65	70	80	85	
Industrial	Any time	70	75	80	85	90
Community Support	Any time	60	65	70	75	80
Public Recreation Facility	Any time	65	70	75	80	85
Nonurban	Any time	70	75	80	85	90

¹ The percent noise level is the level exceeded "n" percent of the time during the measurement period. L₅₀ is the noise level exceeded 50% of the time.

Section 7.25.010 (A) indicates that it is unlawful for any person to cause or allow the creation of any noise which exceeds the following:

- 1. The exterior noise standard of the applicable land use category up to 5 dBA for a cumulative period of 30 minutes in any hour (L_{50}); or
- 2. The exterior noise standard of the applicable land use category, plus 5 dBA, for a cumulative period of more than 15 minutes in any hour (L_{25}); or
- 3. The exterior noise standard of the applicable land use category, plus 10 dBA, for a cumulative period of more than 5 minutes in any hour (L₈); or
- 4. The exterior noise standard of the applicable land use category, plus 15 dBA, for a cumulative period of more than 1 minute in any hour (L₂).
- 5. The exterior noise standard for the applicable land use category, plus twenty decibels or the maximum measured ambient noise level, for any period of time (L_{max}) .

In addition, Section 7.25.010 (B) indicates that if the existing ambient noise level already exceeds any of the exterior noise level limit categories, then the standard shall be increased in five decibel increments in each category as appropriate to encompass the ambient noise level. According to Section 7.25.010 (C), if possible, the ambient noise level shall be measured at the same location along the property line with the alleged offending noise source inoperative. If for any reason the alleged offending noise source cannot be shut down, then the ambient noise must be estimated by performing a measurement in the same general area of the source but at a sufficient distance that the offending noise is inaudible. If the measurement location is on the boundary between two different districts, the noise shall be the arithmetic mean of the two districts. The City of Riverside Municipal Code Title 7 Noise Control section is included in Appendix C.



² City of Riverside Municipal Code, Title 7 Noise Control, Section 7.25.010 (A) (Appendix 3.1).

[&]quot;Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

PROJECT OPERATIONAL NOISE LEVELS

To estimate the Project operational noise levels, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the proposed Project. While sound pressure levels (e.g., L_{eq}) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels (L_{w}) are connected to the sound source and are independent of distance.

Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment. The reference project operational noise levels are based on the Project related noise sources shown on Exhibit D. The reference project operational sound power levels are summarized below:

- Roof-top Mechanical Equipment: Represents a Lennox SCA120 series 10-ton model packaged air conditioning unit with a reference sound power level of 88.9 dBA L_w.
- Pool Activity: 94.6 dBA L_w based on reference noise level measurements describing kids playing, running, screaming, splashing, playing with a ball, and adult conversations. Pool activity is limited to the daytime hours from 7:00 a.m. to 10:00 p.m.
- Outdoor Areas: 91.5 dBA L_w based on reference noise level measurements describing outdoor patio areas, dining, drinking, with background music etc. collected by Urban Crossroads, Inc.

Using the reference sound power levels to represent the proposed Project operations that include roof-top mechanical equipment, pool activity and outdoor areas, Urban Crossroads, Inc. calculated the operational source noise levels that are expected to be generated at the Project site that would be experienced at each of the sensitive receiver locations. Table 3 shows that the daytime Project operational noise levels at the off-site receiver locations are expected to range from 43.1 to 59.3 dBA L_{eq} , with nighttime levels ranging from 40.7 to 57.0 dBA L_{eq} . The differences between the daytime and nighttime noise levels are largely related to the nighttime pool hour restrictions.

PROJECT OPERATIONAL NOISE LEVEL COMPLIANCE

To demonstrate compliance with local noise regulations, the unmitigated Project-only operational noise levels are evaluated against exterior noise level thresholds based on the City of Riverside community support exterior noise level standards adjusted in five decibel increments to encompass the ambient noise levels as outlined in Section 7.25.010 (B) at nearby noise-sensitive receiver locations. Table 3 shows the operational noise levels associated with the Marriot AC/Residence Inn Hotel Project will satisfy the City of Riverside daytime and nighttime exterior noise level standards adjusted to reflect the ambient conditions at all the nearest sensitive receiver locations. Therefore, the unmitigated noise impacts due to Project operational activities are considered less than *significant*.



Real Estate Development Associate September 15, 2021 Mr. Angel Orozco Page 10

TABLE 3: OPERATIONAL NOISE LEVELS

Receiver	Project Operationa Noise Levels (dBA Lec	Project Operational Noise Levels (dBA Leq) ²	Measurement	Reference Noise I	Reference Ambient Noise Levels ⁴	Noise Level Standards (dBA Leq) ⁵	Standards Leq) ⁵	Noise Level Excee	Noise Level Standards Exceeded? ⁶
LOCALIO	Daytime	Nighttime		Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	59.3	57.0	L1	64.3	8.65	65	09	No	oN
R2	44.0	43.8	77	4.79	8.59	70	65	No	oN
R3	43.1	40.7	13	61.7	59.1	92	09	No	oN
R4	56.4	56.2	L4	9.95	23.7	09	09	No	oN
R5	299	54.9	F2	59.8	55.2	09	90	No	oN

¹ See Exhibit C for the receiver locations.

² CadnaA operational noise level calculations are included in Appendix D.

³ Ambient noise level measurement locations as shown on Exhibit B.

⁴ Observed ambient noise levels as shown on Table 1.

⁵ Section 7.25.010 (B) indicates that if the existing ambient noise level already exceeds any of the exterior noise level limit categories, then the standard shall be increased in five decibel increments in each category as appropriate to encompass the ambient noise level.

 6 Do the estimated Project operational noise source activities exceed the noise level standards? "Daytime" = 7:00 a.m. - 10:00 p.m.; "Nighttime" = 10:00 p.m. - 7:00 a.m.



PROJECT OPERATIONAL NOISE LEVEL INCREASES

Noise level increases resulting from the Project are evaluated based on the Appendix G CEQA Guidelines described above at the nearest sensitive receiver locations. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels, and the location of noise-sensitive receivers to determine if a noise level increase represents a significant adverse environmental impact. This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted—the so-called ambient environment. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will typically be judged. Since neither the City of Riverside General Plan Noise Element or Municipal Code identify any noise level increase thresholds, the substantial noise level increase criteria are derived from the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual. To describe the amount to which a given noise level increase is considered acceptable, the FTA criteria is used to evaluate the incremental noise level increase and establishes a method for comparing future project noise with existing ambient conditions under CEQA Significance Threshold A. The amount to which a given noise level increase is considered acceptable is reduced based on existing ambient noise conditions. Noise impacts shall be considered significant if any of the following occur as a direct result of the Project. Table 4 shows the operational noise level increase significance criteria.

TABLE 4: OPERATIONAL NOISE LEVEL INCREASE CRITERIA

Analysis	Condition(a)	Significa	nce Criteria					
Analysis	Condition(s)	Daytime	Nighttime					
	If ambient is < 55 dBA L _{eq} ⁵	≥ 5 dBA L _{eq} F	Project increase					
Operational Noise	If ambient is 55 - 60 dBA L _{eq} 5	≥ 3 dBA L _{eq} Project increase						
Level Increases	If ambient is 60 - 65 dBA L _{eq} 5	≥ 2 dBA L _{eq} F	Project increase					
	If ambient is > 65 dBA L _{eq} ⁵	≥ 1 dBA L _{eq} I	Project increase					

¹ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, 2018.

To describe the Project operational noise level increases, the unmitigated Project operational noise levels are combined with the existing ambient noise levels measurements for the nearby receiver locations potentially impacted by Project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. (2) Instead, they must be logarithmically added using the following base equation:

$$SPL_{Total} = 10log_{10}[10^{SPL1/10} + 10^{SPL2/10} + ... 10^{SPLn/10}]$$

Where "SPL1," "SPL2," etc. are equal to the sound pressure levels being combined, or in this case, the Project-operational and existing ambient noise levels. The difference between the combined Project and ambient noise levels describes the Project noise level increases to the existing ambient noise



environment. As indicated on Tables 5, the Project will generate a daytime operational noise level increase ranging from 0.0 to 2.9 dBA L_{eq} at the nearby receiver locations. Table 6 shows that the Project will generate a nighttime operational noise level increase ranging from 0.0 to 4.4 dBA L_{eq} at the nearby receiver locations. Project-related operational noise level increases will satisfy the operational noise level increase significance criteria presented on Table 4. Therefore, the incremental Project operational noise level increase is considered *less than significant* at all receiver locations.

TABLE 5: DAYTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES

Receiver Location ¹	Total Project Operational Noise Level ²	Measurement Location ³	Reference Ambient Noise Levels ⁴	Combined Project and Ambient ⁵	Project Increase ⁶	Increase Criteria ⁷	Increase Criteria Exceeded?
R1	59.3	L1	64.3	65.5	1.2	2	No
R2	44.0	L2	67.4	67.4	0.0	1	No
R3	43.1	L3	61.7	61.8	0.1	2	No
R4	56.4	L4	56.6	59.5	2.9	3	No
R5	56.5	L5	59.8	61.5	1.7	3	No

¹ See Exhibit C for the receiver locations.

TABLE 6: NIGHTTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES

Receiver Location ¹	Total Project Operational Noise Level ²	Measurement Location ³	Reference Ambient Noise Levels ⁴	Combined Project and Ambient ⁵	Project Increase ⁶	Increase Criteria ⁷	Increase Criteria Exceeded?
R1	57.0	L1	59.8	61.6	1.8	3	No
R2	43.8	L2	63.8	63.8	0.0	2	No
R3	40.7	L3	59.1	59.2	0.1	3	No
R4	56.2	L4	53.7	58.1	4.4	5	No
R5	54.9	L5	55.2	58.1	2.9	3	No

 $^{^{\}mbox{\tiny 1}}$ See Exhibit C for the receiver locations.



² Total Project daytime operational noise levels as shown on Table 3.

³ Reference noise level measurement locations as shown on Exhibit B.

⁴ Observed daytime ambient noise levels as shown on Table 1.

⁵ Represents the combined ambient conditions plus the Project activities.

⁶ The noise level increase expected with the addition of the proposed Project activities.

⁷ Significance increase criteria as shown on Table 4.

 $^{^{\}rm 2}$ Total Project nighttime operational noise levels as shown on Table 3.

³ Reference noise level measurement locations as shown on Exhibit B.

⁴ Observed nighttime ambient noise levels as shown on Table 1.

⁵ Represents the combined ambient conditions plus the Project activities.

 $^{^{\}rm 6}$ The noise level increase expected with the addition of the proposed Project activities.

⁷ Significance increase criteria as shown on Table 4.

OFF-SITE CONSTRUCTION TRAFFIC NOISE IMPACTS

The December 24, 2020 Marriot AC/Residence Inn Hotel Noise & Vibration Impact Analysis report determined that the on-site noise impacts due to construction noise is less than significant at all receiver locations. In addition, to prevent high levels of construction noise the City of Riverside Municipal Code Section 7.35.020(G) exempts construction noise from its stationary-source noise level limits provided said activities do not take place between the hours of 7:00 p.m. and 7:00 a.m. on weekdays, between the hours of 5:00 p.m. and 8:00 a.m. on Saturdays, or at any time on Sunday or a federal holiday.

Construction traffic generated by the proposed Project will influence the traffic noise levels in surrounding off-site areas. To minimize the potential off-site construction truck traffic noise impacts, a traffic control plan will be prepared prior to the initiation of construction activities. In addition, at the time of grading permit, a site will be selected that has an approved earthwork import plan and a Truck Haul Plan will be created and submitted to the City's Public Works Department. Other construction traffic activities will consist of both labor parking and material drop-off/delivery. It is expected that the fire station will be utilized for material drop-offs and staging, further reducing the potential off-site construction traffic noise levels.

CONCLUSIONS

Table 3 shows that the operational noise levels associated with Marriot AC/Residence Inn Hotel Project will satisfy the City of Riverside exterior noise level standards at all nearby receiver locations. In addition, this analysis demonstrates that the Project will contribute less than significant operational noise levels to the existing ambient noise environment during the daytime and nighttime hours at all receiver locations. Therefore, the operational noise level impacts associated with the proposed 24hour seven days per week Project activities will be less than significant. If you have any questions, please contact me directly at (949) 584-3148.

Respectfully submitted,

URBAN CROSSROADS, INC.

Bill Lawson, P.E., INCE

Principal





REFERENCES

- 1. American National Standards Institute (ANSI). Specification for Sound Level Meters ANSI S1.4-2014/IEC 61672-1:2013.
- 2. California Department of Transportation Environmental Program. *Technical Noise Supplement A Technical Supplement to the Traffic Noise Analysis Protocol.* Sacramento, CA: s.n., September 2013.
- 3. Office of Planning and Research. State of California General Plan Guidelines. 2017.
- 4. **U.S. Department of Transportation, Federal Transit Administration.** *Transit Noise and Vibration Impact Assessment Manual.* September 2018.



APPENDIX A

STUDY AREA PHOTOS



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L1_E 33, 58' 54.440000"117, 22' 15.420000"



L1_N 33, 58' 54.470000"117, 22' 15.440000"



L1_S 33, 58' 54.510000"117, 22' 15.440000"



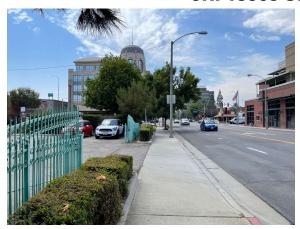
L1_W 33, 58' 54.470000"117, 22' 15.470000"



L2_E 33, 58' 51.120000"117, 22' 13.930000"



L2_N 33, 58' 51.180000"117, 22' 13.930000"



L2_S 33, 58' 51.170000"117, 22' 13.930000"



L2_W 33, 58' 51.170000"117, 22' 13.930000"



L3_E 33, 58' 53.130000"117, 22' 17.920000"



L3_N 33, 58' 53.160000"117, 22' 17.890000"



L3_S 33, 58' 53.150000"117, 22' 17.940000"



L3_W 33, 58' 53.180000"117, 22' 17.940000"



L4_E 33, 58' 53.520000"117, 22' 18.990000"



L4_N 33, 58' 53.710000"117, 22' 18.960000"



L4_S 33, 58' 53.550000"117, 22' 19.040000"



L4_W 33, 58' 53.530000"117, 22' 18.990000"



L5_E 33, 58' 55.610000"117, 22' 17.170000"



L5_N 33, 58' 55.680000"117, 22' 17.150000"



L5_S 33, 58' 55.590000"117, 22' 17.170000"



L5_W 33, 58' 55.610000"117, 22' 17.170000"

APPENDIX B

NOISE LEVEL MEASUREMENT WORKSHEETS



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Analyst: A. Khan JN: 13563 Meter: Piccolo II 24-Hour Noise Level Measurement Summary Location: L1 - Located northeast of the Project site near Riverside Source: Municipal Auditorium at 3485 Mission Inn Avenue. Hourly Lea dBA Readings (unadjusted) Date: Tuesday, August 31, 2021 Project: Marriott AC

BA) 85.1	990															
b) _{p9} J γhuoH 0,00000000000000000000000000000000000	<u> </u>	S.72	2.22	6.72 2.23	2.59	Z'S9 S'79	6.£8	7.E9 6.E9	5.59	63.0	8.88 2.88	8:59	8'79	2.29	8.29	6.62
	0	. 1		4 5	. 9	7 8	. 6	10 11 Hour B	11 12 Hour Beginning	13 14	15 16	. 17	18 19	50	21 22	. 53
Timeframe	Hour	L eq	L max	L min	71%	75%	72%	%87	772	%057	%067	%567	%667	L eq	Adj.	Adj. L eq
	0	57.7	80.6	51.5	9.62	78.3	72.7	71.1	58.2	54.4	52.0 51.5	51.8	51.6	57.7	10.0	67.7
	7	56.1	64.9	49.5	64.6	64.1	62.5	6.09	55.9	52.7	50.3	49.9	49.5	56.1	10.0	66.1
Night	က	55.5	64.4	50.3	64.0	63.5	61.5	59.8	54.8	52.7	50.9	50.6	50.3	55.5	10.0	65.5
	4 2	57.9 62.2	66.3	52.2	66.0 71.9	65.6	63.9	62.3	58.0	55.1 57.9	52.9 54.9	52.6 54.6	52.3	57.9 62.2	10.0	67.9
	9	63.2	70.9	55.5	70.6	70.2	68.7	67.7	64.1	60.1	56.4	56.0	55.6	63.2	10.0	73.2
	7	64.5	71.9	56.9	71.6	71.2	8.69	68.7	9:59	62.1	57.8	57.3	57.0	64.5	0.0	64.5
	∞ (65.7	74.6	59.0	74.2	73.4	71.3	8.69	8.99	64.2	60.3	59.7	59.2	65.7	0.0	65.7
	o (63.9	71.7	57.7	71.3	70.9	69.6	68.1	64.8	62.2	58.6	58.1	57.8	63.9	0.0	63.9
	0 11	63.9	73.3	56.6	72.9	72.3	74.2	67.5	64.8 0.4.8	61.8	57.6	57.1	56.7	63.9	0.0	63.9
	12	63.5	71.5	55.8	71.0	70.4	69.0	67.6	64.3	61.4	57.1	56.6	26.0	63.5	0.0	63.5
	13	62.5	70.9	55.4	70.3	2.69	62.9	66.4	63.3	60.1	56.3	55.9	55.5	62.5	0.0	62.5
Day	14	63.0	70.9	55.4	70.7	70.1	68.5	67.2	64.0	60.4	56.4	55.9	55.5	63.0	0.0	63.0
	15	9.99	77.8	55.2	77.4	76.9	73.7	71.4	64.5	61.1	56.2	55.7	55.3	9.99	0.0	9.99
	17	65.8	75.6	56.3	75.1	74.4	71.9	6.69	65.8	63.0	58.3	57.4	56.6	65.8	0:0	65.8
	18	64.8	72.9	56.8	72.5	71.9	70.2	69.1	9:59	62.6	58.0	57.3	56.9	64.8	0.0	64.8
	19	64.8	74.8	55.9	74.3	73.8	71.5	0.69	64.2	9.09	56.9	56.5	56.1	64.8	2.0	8.69
	20	62.2	81.7	56.0	81.3	80.6	75.3	73.9	65.5	60.4	56.8	56.4 55.9	56.1	62.2	5.0	67.2
:	22	61.2	6.69	53.4	9.69	689	66.8	65.6	62.0	58.1	54.2	53.8	53.5	61.2	10.0	71.2
Night	23	59.9	68.6	52.7	68.2	67.5	65.6	64.5	60.3	56.5	53.4	53.1	52.8	59.9	10.0	6.69
Timeframe	Hour	L_{eq}	L max	L min	71%	75%	<i>%</i> 57	%87	7722	<i>%057</i>	<i>%067</i>	<i>%</i> 567	<i>%667</i>		L eq (dBA)	
Day	Min	62.2	6.07	55.0	70.3	2.69	6.79	65.7	62.4	59.7	56.2	55.7	55.1	24-Hour	Daytime	Nighttime
	Max	9.99	81.7		81.3	9.08	75.3	73.9	8.99	64.2	60.3	59.7	59.2		(7am-10pm)	(10pm-7am)
Energy	Aver	64.3	Ave	Average:	73.8	73.1	9.02	689	64.7	61.5	57.4	56.8	56.4	,	,	(
Night	Min XeX	55.5	64.4	49.5	64.0	63.5	61.5	59.8	54.8	52.7	50.3	49.9	49.5	63.1	64.3	59.8
Energy	Energy Average	59.8	Ave	Average:	69.2	68.5	66.1	64.5	59.0	55.6	52.9	52.6	52.3			



63.8 Adj. L eq 72.6 70.7 71.1 72.2 74.9 67.2 69.9 66.5 67.1 67.6 67.1 66.9 66.9 66.9 67.4 72.8 74.5 Analyst: A. Khan JN: 13563 23 10.0 10.0 L_{eq} (dBA) Daytime (7am-10pm) 67.4 22 7.29 21 66.4 24-Hour 62.6 60.7 61.1 62.2 64.9 65.9 67.2 69.9 66.5 67.6 68.5 66.7 67.1 66.7 67.9 67.4 67.8 66.3 65.7 6.99 67.1 20 £.99 8.79 19 59.1 57.5 199% 55.3 54.1 54.6 56.3 59.2 61.3 61.4 60.7 60.3 18 **p.**78 62.0 59.5 58.0 195% Meter: Piccolo II 55.7 54.5 55.1 56.9 59.7 61.8 63.8 65.1 62.5 62.3 61.9 61.9 61.9 61.0 62.1 61.8 61.1 60.8 8.09 17 6.99 16 6.78 60.0 58.5 **190%** 64.2 65.5 62.2 15 ۲.99 24-Hour Noise Level Measurement Summary 1.78 14 59.5 58.7 59.5 60.5 62.8 65.0 64.7 64.5 64.0 62.7 61.3 **150%** 64.7 64.4 65.2 64.6 64.7 64.7 67.6 Location: L2 - Located east of the Project site at 3398 Mission Inn 7.99 13 Hourly L_{eq} dBA Readings (unadjusted) 6.99 64.7 63.6 **125%** 64.7 66.1 69.5 6.99 9.99 67.9 67.0 68.2 6.99 125% 67.1 67.3 66.7 **Hour Beginning** 69 61.1 66.5 2.89 11 9.79 72.1 70.0 72.6 69.4 68.7 10 71.3 76.7 71.6 72.4 72.9 76.4 72.2 72.9 80.3 74.0 73.5 69.4 68.2 **15%** 2.99 6 6.69 _∞ 71.9 67.9 68.2 68.8 72.4 72.4 70.3 73.5 74.3 9.9/ 75.5 76.7 71.6 69.8 12% 72.7 78.4 79.6 73.8 82.8 83.4 Source: Avenue. 2.78 / 73.1 68.5 68.9 69.5 73.2 72.7 73.4 74.1 74.9 72.3 70.3 **L1%** 78.6 80.5 85.6 76.1 74.5 68.5 73.2 83.7 9 2 9.09 54.0 62.6 59.1 61.2 62.0 61.8 61.3 61.0 60.5 61.6 58.9 57.3 63.4 64.5 61.3 62.6 6.49 4 69.0 73.7 69.0 69.5 70.2 73.6 75.0 75.4 78.6 72.8 73.8 74.5 79.7 84.2 86.3 76.5 · max 2.29 m Date: Tuesday, August 31, 2021 1.19 67.9 64.5 63.1 62.6 60.7 61.1 62.2 64.9 65.9 67.2 69.9 66.5 67.1 67.6 68.5 66.7 67.1 60.7 6.99 67.4 67.8 6.69 7.09 Project: Marriott AC 0 Σ Min 22 23 **Energy Average** 885.0 775.0 665.0 850.0 850.0 35.0 Timeframe Night Night Night Hourly L_{eq} (dBA) Day Day



Energy Average

Analyst: A. Khan JN: 13563 Meter: Piccolo II Location: L3 - Located southwest of the Project site near Life Arts Center 24-Hour Noise Level Measurement Summary Source: at 644 Lemon Street. Date: Tuesday, August 31, 2021 Project: Marriott AC

59.1 Adj. L eq 72.2 68.8 68.2 65.9 59.4 61.7 61.1 63.1 62.0 62.1 60.7 60.9 60.9 63.4 63.4 63.2 69.7 68.1 68.4 23 10.0 10.0 L_{eq} (dBA) Daytime (7am-10pm) 61.7 22 1.82 21 2.82 6.09 24-Hour 57.8 62.2 58.8 58.2 55.9 59.7 62.0 62.1 60.7 62.1 60.9 60.6 63.4 62.8 60.3 58.2 61.1 63.1 58.1 58.4 20 £.09 8.29 19 53.2 52.3 199% 55.2 55.7 55.7 55.7 55.2 54.4 54.8 54.5 54.6 55.2 55.7 56.0 55.1 54.1 53.7 51.4 18 4.69 53.5 52.7 195% 66.5 59.9 55.9 57.1 51.8 53.9 55.5 56.1 56.0 55.6 55.1 54.9 54.8 55.6 56.3 56.4 56.4 54.1 4.69 17 9.09 16 53.8 53.1 66.7 60.2 56.1 57.1 52.2 54.8 55.2 56.0 56.7 55.7 54.8 55.2 15 6.09 1.29 14 58.0 55.9 55.6 1**50%** 58.1 58.7 59.0 58.4 60.4 59.7 58.0 56.8 60.4 7.09 13 Hourly L_{eq} dBA Readings (unadjusted) 67.9 62.9 59.8 58.5 56.3 60.6 60.9 59.6 58.4 58.7 **125**% 61.6 9.09 61.1 63.4 67.9 62.0 752% 62.7 63.4 62.2 **Hour Beginning** 1.29 11 0.29 63.5 59.6 64.9 67.9 8.99 65.0 67.3 65.8 64.6 68.2 68.1 67.6 64.7 61.7 62.5 **18%** 68.2 10 1.59 66.3 64.2 66.4 69.4 8.99 0.99 69.4 63.2 64.1 **L5%** 60.5 70.1 70.1 69.7 1.19 6 7.19 68.1 64.8 69.8 67.8 72.6 9.89 68.3 67.3 65.0 65.9 **12%** 69.5 72.1 4.62 / 62.1 65.4 68.7 67.9 72.8 72.5 69.7 65.6 66.4 **L1%** 65.2 70.4 68.4 73.3 70.0 72.0 68.7 2.09 9 2 55.0 51.3 53.0 55.6 55.2 55.0 53.9 53.0 52.2 55.1 55.6 54.6 54.4 55.5 55.9 55.1 51.3 66.2 6.22 4 61.0 70.1 66.6 62.8 61.0 62.5 65.8 68.9 71.9 73.8 69.5 70.4 69.3 69.2 68.4 73.2 2.82 m 8.82 57.8 62.2 58.8 58.2 55.9 59.7 60.2 61.7 61.1 63.1 60.7 62.1 60.9 63.4 62.8 58.1 58.4 55.9 62.2 62.0 62.1 63.4 2.29 0 Σ Max Min 22 23 **Energy Average Energy Average** 885.0 775.0 665.0 850.0 850.0 35.0 Timeframe Timeframe Night Night Night Hourly L_{eq} (dBA) Day Day



Analyst: A. Khan JN: 13563 Meter: Piccolo II Location: L4 - Located west of the Project site near First Congregational Source: Church at 3504 Mission Inn Avenue. 24-Hour Noise Level Measurement Summary Date: Tuesday, August 31, 2021 Project: Marriott AC

0.22 23 0.22 23	Adi. Adi. L.		10.0 63.9				10.0 65.8					0.0				0.0							10.0 65.0	L _{eq} (dBA)		(7am-10pm) (10pm-7am)		56.6 53.7	
20 S S S S S S S S S S S S S S S S S S S	Γ	55.2	53.9	49.7	51.2	52.1	55.8	54.7	55.2	57.1	59.2	26.7	55.9	55.9	55.8	55.6 56.5	57.8	57.4	56.0	56.9	56.2	55.9	55.0		24-Hour		1	55.7	
60.92 61 0.92 61	%667	52.1	50.9	46.7	45.5	49.2	51.1	51.5	51.4	52.4	51.8	52.0	51.7	52.2	52.0	51.7	53.5	53.4	53.2	53.6	53.3	53.1	52.5	%667	51.4	53.6	52.4	45.5 53.1	49.8
8.72 11	%567	52.6	51.3	46.9	45.8	49.4	51.3	51.7	51.7	52.7	52.1	52.2	52.0	52.5	52.2	52.0	53.8	53.7	53.4	53.8	53.6	53.5	52.9	<i>%</i> 567	51.7	53.8	52.7	45.8	50.2
6.22 1	%067	53.0	51.6	47.1	46.1	49.6	51.6	52.0	52.0	53.1	52.4	52.5	52.2	52.7	52.5	52.3	54.1	53.9	53.6	54.0	53.8	53.8	53.1	<i>%06</i> 7	52.0	54.1	53.0	46.1	50.4
6.22 £1 8.22 £1	%057	54.5	53.3	48.5	47.4	51.1	53.5	53.7	53.8	55.3	54.8	54.2	54.3	54.2	54.2	54.2	56.0	55.5	55.5	55.4	55.1	55.1	54.4	<i>%051</i>	53.7	26.0	54.7	47.4	52.0
7.92 11 6.22 51	Hour Beginning		54.2	_												56.2												48.9	
2.62 01			1 56.3		_		1 59.9							5 59.3			6 61.6						8 57.1					9 52.0 1 59.9	
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1.52 v	L min 11%			46.6 55	_	_			51.4 61							51.6 61		53.3 64					52.3 59		51.4 60		-	45.4 5 ⁴ 5 ⁴ 5 ⁴ 6 ⁵	
7.84 w	Tx	60.7	59.0	55.8	5.85 5.5	57.5	63.5				70.1			62.8	62.3	63.8				64.3	62.3	6.09		L max	9.09	72.5	Average:	54.9	Average:
7.64 c	7	55.2	53.9	49.7	51.2	52.1	55.8	54.7	55.2	57.1	59.2	26.7	55.9	55.9	55.8	55.6	57.8	57.4	56.0	56.9	56.2	55.9	55.0	L_{eq}	54.7	59.2	9.95	48.7	53.7
7.22	Hour		П	7 0	n 4	. 72	9	7	∞	б	10	11	12	13	14	15	17	18	19	20	21	22	23	Hour	Min	Max	Energy Average	Min	Energy Average
(ABb) _{ps} J ylruoH 20875 V 2000000000000000000000000000000000000	Timeframe			Night	JII BINI									ú	Day							+4~:14	INIGIN	Timeframe	Dav	(pp	Energy	Night	Energy



Analyst: A. Khan JN: 13563 Meter: Piccolo II 24-Hour Noise Level Measurement Summary Location: L5 - Located north of the Project site near Universalist Source: Unitarian Church of Riverside at 3525 Mission Inn Avenue. Hourly Leadings (unadjusted) Date: Tuesday, August 31, 2021 Project: Marriott AC

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66.7 | 71.9 | 6.07 | 6.07 | 9.07
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| | L eq | 52.7 | 51.1 | 50.6 | 53.8 | 57.5 | 57.8 | 53.7
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Ir Lea L _{max} L _{min} 11% 12% 15% 18% 125% 150% 190% 1.95% 1.99% L _{eq} . | Hour Leq L _{max} L _{min} L1% L2% L5% L5% L5% L5% L5% L5% L6% L6% | Hour Leq Lmax Lmin L1% L2% L5% L6% L6% L5% L5% L5% L5% L5% L5% L6% L6%< | Hour Log Lmax Lmax | Hour Log Lmax Lmax | Hour Beginning Loa Lmax Lmax | Hour Beginning Loa Lmax Lmax | Hour Beginning Log Ligh Ligh | Hour Beginning Log Ligh Ligh | Hour Beginning Hour Beginning Hour Leq Lmm L1% L2% L5% L5% L50% L90% L95% L99% Leq 1 55.3 68.8 46.5 68.2 67.4 64.0 60.4 52.0 49.2 47.2 46.9 46.6 56.3 1 52.7 70.7 46.2 70.1 69.2 66.2 61.7 51.2 49.0 47.0 46.9 46.6 56.3 2 51.1 59.7 46.1 59.2 58.6 56.5 55.1 51.2 49.0 47.0 46.7 46.3 52.7 3 50.6 58.2 46.4 57.9 57.4 55.6 56.5 57.3 50.5 48.8 47.1 46.8 46.5 50.6 51.1 50.5 51.0 48.7 46.8 46.5 50.6 50.6 50.5 51.0 51.0 50.3 50.0 40.2 50.1 50.6 50.0 | Hour Beginning Hour Beginning Hour Beginning Hour Beginning Hour Beginning Log Log | Hour Leq Lmax Lmax | Hour Log Log Log 195% 195% 195% Log Log | Hour L _{cq} L _{min} LTX L2X L5X L50X L50X <th< td=""><td>Hour Beginning Hour Be</td><td>Hour Log Log<td>Hour Reginning Hour Reginning Hour Lan Link LP2K LSX LSX LSOR LSOR<td>Hour Reginning Hour Reginning Hour Reginning Hour Reginning Hour Reginning Logs LOSS LOSS</td><td>Hour Leg Lans Lans Lans Lans Lans Hour Reginning Hour Leg Lans Lans Lans Lans Lans Lans Lans Lans</td><td>Hour Reşinning Hour Reşinning</td><td>Hour Beginning Hour B</td><td>Hour Eaginning Hour I, a Lima Link Link Link Link Link Link Link Link</td><td>Hour Fig. 1 Lange Line</td><td>Hour Reginning Hour Reginning Hour Reginning Hour Reginning Hour Reginning Logy LOSY LOSY LOSY LOSY LOSY LOSY LOSY LOSY Logy Logy</td><td>Hour Beginning Hour Beginning Logy <</td><td>Hour L_m <</td><td> Hour Beginning</td></td></td></th<> | Hour Beginning Hour Be | Hour Log Log <td>Hour Reginning Hour Reginning Hour Lan Link LP2K LSX LSX LSOR LSOR<td>Hour Reginning Hour Reginning Hour Reginning Hour Reginning Hour Reginning Logs LOSS LOSS</td><td>Hour Leg Lans Lans Lans Lans Lans Hour Reginning Hour Leg Lans Lans Lans Lans Lans Lans Lans Lans</td><td>Hour Reşinning Hour Reşinning</td><td>Hour Beginning Hour B</td><td>Hour Eaginning Hour I, a Lima Link Link Link Link Link Link Link Link</td><td>Hour Fig. 1 Lange Line</td><td>Hour Reginning Hour Reginning Hour Reginning Hour Reginning Hour Reginning Logy LOSY LOSY LOSY LOSY LOSY LOSY LOSY LOSY Logy Logy</td><td>Hour Beginning Hour Beginning Logy <</td><td>Hour L_m <</td><td> Hour Beginning</td></td> | Hour Reginning Hour Reginning Hour Lan Link LP2K LSX LSX LSOR LSOR <td>Hour Reginning Hour Reginning Hour Reginning Hour Reginning Hour Reginning Logs LOSS LOSS</td> <td>Hour Leg Lans Lans Lans Lans Lans Hour Reginning Hour Leg Lans Lans Lans Lans Lans Lans Lans Lans</td> <td>Hour Reşinning Hour Reşinning</td> <td>Hour Beginning Hour B</td> <td>Hour Eaginning Hour I, a Lima Link Link Link Link Link Link Link Link</td> <td>Hour Fig. 1 Lange Line</td> <td>Hour Reginning Hour Reginning Hour Reginning Hour Reginning Hour Reginning Logy LOSY LOSY LOSY LOSY LOSY LOSY LOSY LOSY Logy Logy</td> <td>Hour Beginning Hour Beginning Logy <</td> <td>Hour L_m <</td> <td> Hour Beginning</td> | Hour Reginning Hour Reginning Hour Reginning Hour Reginning Hour Reginning Logs LOSS LOSS | Hour Leg Lans Lans Lans Lans Lans Hour Reginning Hour Leg Lans Lans Lans Lans Lans Lans Lans Lans | Hour Reşinning Hour Reşinning | Hour Beginning Hour B | Hour Eaginning Hour I, a Lima Link Link Link Link Link Link Link Link | Hour Fig. 1 Lange Line | Hour Reginning Hour Reginning Hour Reginning Hour Reginning Hour Reginning Logy LOSY LOSY LOSY LOSY LOSY LOSY LOSY LOSY Logy Logy | Hour Beginning Logy < | Hour L _m < | Hour Beginning |



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APPENDIX C

CITY OF RIVERSIDE MUNICIPAL CODE NOISE STANDARDS



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Title 7 - NOISE CONTROL

Chapter 7.05 - POLICY AND INTENT

7.05.010 - Policy and intent.

It shall be the policy of the City to maintain and preserve the quiet atmosphere of the City, to implement programs aimed at retaining ambient noise levels throughout the City, and to mitigate noise conflicts.

It is determined that certain noise levels are detrimental to the public health, safety and welfare and are contrary to the public interest. Therefore, the City Council declares that creating, maintaining, causing or allowing to create, maintain or cause any noise in a manner not in conformity with the provisions of this title, is a public nuisance and shall be punishable as such.

In order to control unnecessary, excessive and/or annoying noise in the City, it is declared to be the policy of the City to prohibit such noise generated by the sources specified in this title. It shall be the goal of the City to minimize noise levels and mitigate the effects of noise to provide a safe and healthy living environment.

(Ord. 7489 § 1, 2019; Ord. 6273 § 1 (part), 1996)

Chapter 7.10 - DEFINITIONS

7.10.010 - Definitions generally.

For the purposes of this title, the words and phrases defined in this chapter shall have the meanings respectively ascribed to them by this chapter.

(Ord. 7489 § 3, 2019)

7.10.015 - A-weighted sound level.

A-weighted sound level" means the sound pressure level in decibels as measured on a sound-level meter using the A-weighing network. The level is designated dB(A) or dBA.

(Ord. 7489 § 4, 2019; Ord. 6273 § 1(part), 1996)

7.10.020 - Agricultural property.

"Agricultural property" means a parcel of real property which is developed for agricultural and incidental residential purposes which is located within any permitted zone.

(Ord. 6273 § 1(part), 1996)

7.10.025 - Ambient noise level.

"Ambient noise level" means the all-encompassing noise level associated with a given environment, being a composite of sounds from all sources, excluding an alleged offensive noise, at the location and approximate time at which the comparison with the offensive noise is to be made. The ambient noise level constitutes the normal or existing level of environmental noise at a given location.

(Ord. 6273 § 1(part), 1996)

7.10.030 - Commercial purpose.

"Commercial purpose" means the use, operation or maintenance of any sound amplification equipment for the purpose of advertising any business, goods or services, or for the purposes of attracting the attention of the public, or soliciting patronage of customers to any performance, show, entertainment, exhibition or event, or for the purpose of demonstrating such sound equipment.

(Ord. 6273 § 1(part), 1996)

7.10.035 - Construction.

"Construction" means any site preparation including grading, building, fabricating, assembly, substantial repair, alteration, blasting, jack hammering, pile drivers and the like.

(Ord. 7489 § 5, 2019; Ord. 6273 § 1(part), 1996)

7.10.036 - Community & Economic Development Director.

"Community & Economic Development Director" means the duly appointed and acting head of the Community & Economic Development Department and/or his/her designee.

(Ord. 7489 § 6, 2019)

7.10.040 - Community support land use category.

"Community support land use category" means areas developed with schools, libraries, fire stations, hospitals and similar uses in any zone.

(Ord. 6273 § 1(part), 1996)

7.10.045 - Cumulative period.

"Cumulative period" means a total period of time composed of time segments which may be continuous or discontinuous.

(Ord. 6273 § 1(part), 1996)

7.10.050 - Decibel (dB).

"Decibel (dB)" means a unit for measuring amplitude of a sound, equal to 20 times the logarithm to the base ten of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).

(Ord. 7489 § 7, 2019; Ord. 6273 § 1(part), 1996)

7.10.055 - Demolition.

"Demolition" means any dismantling, intentional destruction or removal of structures, site improvements, landscaping or utilities.

(Ord. 6273 § 1(part), 1996)

7.10.060 - Emergency.

"Emergency" means any occurrence or set of circumstances involving actual or imminent physical trauma or property damage which demands immediate action.

(Ord. 6273 § 1(part), 1996)

7.10.065 - Emergency work.

"Emergency work" means work made necessary to restore property to a safe condition following a physical trauma or property damage caused by an emergency or work necessary to prevent or minimize damage from a potential emergency.

(Ord. 6273 § 1(part), 1996)

7.10.070 - Fixed noise source.

"Fixed noise source" means a stationary device which creates sounds from a fixed location, including residential, agricultural, industrial and commercial machinery and equipment, pumps fans, compressors, air conditioners and refrigeration devices.

(Ord. 6273 § 1(part), 1996)

7.10.075 - Grading.

"Grading" means any excavating and/or filling of earth material to prepare a site for construction or the placement of improvements.

(Ord. 6273 § 1(part), 1996)

7.10.080 - Impulsive sound.

"Impulsive sound" means sound of short duration, usually less than one second, with an abrupt onset and rapid decay. Examples include explosions, drum beats, drop-forge impacts, fire crackers, discharge of firearms and one object striking another.

(Ord. 6273 § 1(part), 1996)

7.10.085 - Industrial land use category.

"Industrial land use category" means any area occupied by land uses whose primary operation involves warehousing, manufacturing, assembling, distributing, packaging or processing goods in the BMP, I, and AIR zones.

(Ord. 6273 § 1(part), 1996)

7.10.090 - Intrusive noise.

"Intrusive noise" means a noise which intrudes over and above the existing ambient noise. The relative intrusiveness of the sound depends upon its amplitude, duration, frequency and time of occurrence, tonal or informational content as well as its relationship to the prevailing ambient noise level.

(Ord. 6273 § 1(part), 1996)

7.10.095 - Minor maintenance.

"Minor maintenance" means work required to keep property used for residential purposes in an existing state.

(Ord. 6273 § 1(part), 1996)

7.10.100 - Mobile noise source.

"Mobile noise source" means any noise source other than a fixed noise source.

(Ord. 6273 § 1(part), 1996)

7.10.105 - Motor vehicle.

"Motor vehicle" means any self-propelled vehicle as defined in the California Vehicle Code, including all onhighway types of motor vehicles subject to registration under said code, and all off-highway type motor vehicles subject to identification under said code.

(Ord. 6273 § 1(part), 1996)

7.10.110 - Muffler or sound dissipative device.

"Muffler or sound dissipative device" means a device for abating the sound of escaping gases from an internal combustion engine.

(Ord. 7489 § 8, 2019; Ord. 6273 § 1(part), 1996)

7.10.115 - Noise.

"Noise" means any sound which exceeds the appropriate actual or presumed ambient noise level or which annoys or tends to disturb humans or which causes or tends to cause an adverse psychological or physiological effect on humans.

(Ord. 6273 § 1(part), 1996)

7.10.120 - Noise Control Officer.

"Noise Control Officer" means the City official(s) or duly authorized representative(s) with the responsibility to enforce the noise ordinance.

(Ord. 6273 § 1(part), 1996)

7.10.125 - Noise disturbance.

"Noise disturbance" means any sound which, as judged by a City police officer or code enforcement officer, annoys or disturbs a reasonable person of normal sensitivities or exceeds a standard set forth in this title.

(Ord. 7489 § 9, 2019; Ord. 6273 § 1(part), 1996)

7.10.130 - Noise source.

"Noise source" means a disturbance causing operation which originates from noise generating mechanism. An example of a noise source is the combination of a motor, pump and compressor.

(Ord. 6273 § 1(part), 1996)

7.10.135 - Noise zone.

"Noise zone" means defined areas of generally consistent land use where the ambient noise levels are generally similar within a range of five decibels.

(Ord. 6273 § 1(part), 1996)

7.10.140 - Nonurban land use category.

"Nonurban land use category" means vacant land or land primarily for agricultural production containing ten acres or more.

(Ord. 6273 § 1(part), 1996)

7.10.145 - Office/commercial land use category.

"Office/commercial land use category" means areas developed with office and/or commercial uses in the O, CRC, CR-NC, CR, and CG zones.

(Ord. 6967 § 2, 2007; Ord. 6273 § 1(part), 1996)

7.10.150 - Person.

"Person" means any individual, association, partnership or corporation and includes any officer, employee, department, agency or instrumentality of a State or any political subdivision of a State.

(Ord. 6273 § 1(part), 1996)

7.10.155 - Powered model vehicle.

"Powered model vehicle" means airborne, waterborne or land-borne vehicles such as model airplanes, model boats, and model vehicles of any type or size which are not designed for carrying persons or property and which can be propelled in any form other than manpower or wind power.

(Ord. 6273 § 1(part), 1996)

7.10.160 - Public recreation facility land use category.

"Public recreation facility land use category" means areas developed with public parks and other public recreational facilities.

(Ord. 6273 § 1(part), 1996)

7.10.165 - Public right-of-way.

"Public right-of-way" means any street, avenue, boulevard, highway, sidewalk or alley or similar place which is owned or controlled by a government entity.

(Ord. 6273 § 1(part), 1996)

7.10.170 - Public space.

"Public space" means any real property or structures which are owned or controlled by a government entity.

(Ord. 6273 § 1(part), 1996)

7.10.175 - Residential land use category.

"Residential land use category" means areas primarily used for residential purposes in the RE, RA-5, RR, RC, R-1-1-1/2 acre, R-1-13000, R-1-10500, R-1-8500, R-1-7000, R-3-2500, R-3-4000, R-3-3000, R-3-2000, R-3-1500, and R-4 zones.

(Ord. 6967, § 2, 2007; Ord. 6273 § 1(part), 1996)

7.10.180 - Sound.

"Sound" means an oscillation in pressure, particle displacement, particle velocity or other physical parameter, in a medium with internal forces that causes compression and rarefaction of that medium. The description of sound may include any characteristic of such sound, including duration, intensity and frequency.

(Ord. 6273 § 1(part), 1996)

7.10.185 - Sound amplifying equipment.

"Sound amplifying equipment" means any device for the amplification of the human voice, or music, or any other sound, excluding devices in motor vehicles when heard only by the occupants of the vehicle, excluding warning devices on authorized emergency vehicles or horns or other warning devices on any vehicle used only for traffic safety purposes.

(Ord. 6273 § 1(part), 1996)

7.10.190 - Sound level.

"Sound level" means the weighted sound pressure level obtained by the use of a sound level meter and frequency weighing network, such as A, B or C, as specified in American National Standards Institute specifications for sound level meter ANSI S1.4-1971 or the latest approved revision thereof. If the frequency weighing method used is not stated, the A-weighing shall apply.

(Ord. 6273 § 1(part), 1996)

7.10.195 - Sound level meter.

"Sound level meter" means an instrument, including a microphone, an amplifier, an output meter, and frequency weighing networks for the measurement of sound levels which satisfies the requirements for S2A meters in American National Standards Institute specifications for sound level meters, S1.4-1971, or the most recent revision thereof.

(Ord. 6273 § 1(part), 1996)

7.10.200 - Sound pressure.

"Sound pressure" means the instantaneous difference between the actual pressure and the average or barometric pressure at a given point in space, as produced by sound energy.

(Ord. 6273 § 1(part), 1996)

7.10.205 - Sound pressure level.

"Sound pressure level" means 20 times the logarithm to the base ten of the ratio of the pressure of this sound to the reference pressure, which reference pressure shall be explicitly stated.

(Ord. 7489 § 10, 2019; Ord. 6273 § 1(part), 1996)

7.10.210 - Supplementary definitions of technical terms.

Definitions of technical terms not defined herein shall be obtained from the American National Standard, "Acoustical Terminology" S1.1-1961 (R-1971) or the latest revision thereof.

(Ord. 6273 § 1 (part), 1996)

7.15.005 - Administration and enforcement.

- A. The noise regulation shall be enforced by the Code Enforcement Division of the Community & Economic Development Department and/or the Riverside Police Department.
- B. It shall be the responsibility of the Code Enforcement Division and/or the Riverside Police Department to enforce the provisions of this title and to perform all other functions required by this title. Such duties shall include, but not be limited to investigating potential violations, issuing warning notices and citations, and providing evidence to the City Attorney for legal action.
- C. A violation of these regulations may be prosecuted as a misdemeanor or as an infraction. Each day a violation occurs shall constitute a separate offense and shall be punishable as such. However, nothing in these regulations shall prevent any code compliance officer or his duly authorized representatives from efforts to obtain voluntary compliance by way of warning, notice or education.

(Ord. 7489 § 11, 2019; Ord. 7341 § 6, 2016; Ord. 6959 § 1, 2007; Ord. 6844 § 15, 2006; Ord. 6273 § 1 (part), 1996)

7.15.010 - Fines and penalties.

- A. Any violation of this title shall be subject to fines as set forth in <u>Chapter 1.17</u> of the Riverside Municipal Code.
- B. The civil fines and criminal penalties imposed shall be in addition to any other fines and/or penalties imposed for violation of local, State, and/or Federal law.

(Ord. 7489 § 13, 2019)

7.15.015 - Responsible parties.

Persons responsible for violations of this title shall include the person, persons, entity, or entities responsible for the noise disturbance including, but not limited to, the property owner, business operations, renters, or lessees on whose premises the noise originates.

(Ord. 7489 § 14, 2019)

Chapter 7.20 - SOUND LEVEL MEASUREMENT

7.20.010 - Sound level measurement.

Except as provided by Chapter 17.35, General Noise Regulations, any sound or noise level measurement made to enforce this title shall be measured with a sound level meter using the A-weighting scale at slow response. The exterior noise level shall be measured at the position or positions along the complainant's property line closest to the noise source or where the noise level is highest. If the complaint concerns an interior source, noise measurements shall be made at a point at least four feet from the wall, ceiling or floor nearest the noise source with windows opened or closed as would be normal for the season.

(Ord. 7489 § 15, 2019; Ord. 6273 § 1 (part), 1996)

Chapter 7.23 - AMBIENT SOUND LEVELS

Footnotes:

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Editor's note— Ord. 7489 § 16, adopted Nov. 5, 2019, amended the title of Ch. 7.23 from "Ambient Noise Levels" to "Ambient Sound Levels," as set out herein.

7.23.010 - Ambient sound levels.

<u>Title 7</u> - Noise Control of the Riverside Municipal Code shall be consistent with Title 24 of the California Code of Regulations as may be amended from time to time.

(Ord. 7489 § 17, 2019; Ord. 6967 § 3, 2007)

7.23.020 - Mixed use development.

Where a new development proposal includes a mix of residential and nonresidential uses within the same project, the interior ambient noise standard for the residential component of the project may be increased by five decibels.

(Ord. 7489 § 18, 2019; Ord. 6967 § 3, 2007)

7.23.030 - Infill single-family residential development.

Where a new development proposal includes an infill single-family residential use, the interior ambient noise standard for the proposal may be increased by five decibels.

(Ord. 7489 § 19, 2019; Ord. 6967 § 3, 2007)

Chapter 7.25 - NUISANCE EXTERIOR SOUND LEVEL LIMITS

7.25.010 - Exterior sound level limits.

- A. Unless a variance has been granted as provided in this title, it shall be unlawful for any person to cause or allow the creation of any noise which exceeds the following:
 - 1. The exterior noise standard of the applicable land use category, up to five decibels, for a cumulative period of more than 30 minutes in any hour; or
 - 2. The exterior noise standard of the applicable land use category, plus five decibels, for a cumulative period of more than 15 minutes in any hour; or
 - 3. The exterior noise standard of the applicable land use category, plus ten decibels, for a cumulative period of more than five minutes in any hour; or
 - 4. The exterior noise standard of the applicable land use category, plus 15 decibels, for the cumulative period of more than one minute in any hour; or
 - 5. The exterior noise standard for the applicable land use category, plus 20 decibels or the maximum

measured ambient noise level, for any period of time.

- B. If the measured ambient noise level exceeds that permissible within any of the first four noise limit categories, the allowable noise exposure standard shall be increased in five decibel increments in each category as appropriate to encompass the ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.
- C. If possible, the ambient noise level shall be measured at the same location along the property line with the alleged offending noise source inoperative. If for any reason the alleged offending noise source cannot be shut down, then the ambient noise must be estimated by performing a measurement in the same general area of the source but at a sufficient distance that the offending noise is inaudible. If the measurement location is on the boundary between two different districts, the noise shall be the arithmetic mean of the two districts.
- D. Where the intruding noise source is an air-conditioning unit or refrigeration system which was installed prior to the effective date of this title, the exterior noise level when measured at the property line shall not exceed 60 dBA for units installed before 1-1-80 and 55 dBA for units installed after 1-1-80.

Exterior Noise Standards										
Land Use Category	Time Period	Noise Level								
Residential	Night (10:00 p.m. to 7:00 a.m.)	45 dBA								
	Day (7:00 a.m. to 10:00 p.m.)	55 dBA								
Office/commercial	Any time	65 dBA								
Industrial	Any time	70 dBA								
Community support	Any time	60 dBA								
Public recreation facility	Any time	65 dBA								
Nonurban	Any time	70 dBA								

Table 7.25.010A

Table 7.25.010.B

Land Use Category/Zoning Matrix										
Land Use Category	Underlying Zone									
Residential	RE, RA-5, RR, RC, R-1-1/2 acre, R-1-13000, R-1-10500,									
	R-1-8500, R-1-7000, R-3-2500,									
	R-3-4000, R-3-3000, R-3-2000, R-3-1500, R-4									
Office/commercial	O, CRC, CR-NC, CR, CG									
Industrial	BMP, I, AIR									
Community support	Any permitted zone									
Nonurban	Any permitted zone									

(Ord. 7489 § 20, 21(Exh. A), 2019; Ord. 6967 § 5, 2007; Ord. 6273 § 1 (part), 1996)

Chapter 7.30 - NUISANCE INTERIOR SOUND LEVEL LIMITS

7.30.015 - Interior sound level limits.

- A. No person shall operate or cause to be operated, any source of sound indoors which causes the noise level, when measured inside another dwelling unit, school or hospital, to exceed:
 - 1. The interior noise standard for the applicable land category area, up to five decibels, for a cumulative period of more than five minutes in any hour;
 - 2. The interior noise standard for the applicable land use category, plus five decibels, for a cumulative period of more than one minute in any hour;
 - 3. The interior noise standard for the applicable land use category, plus ten decibels or the maximum measured ambient noise level, for any period of time.
- B. If the measured interior ambient noise level exceeds that permissible within the first two noise limit categories in this section, the allowable noise exposure standard shall be increased in five decibel increments in each category as appropriate to reflect the interior ambient noise level. In the event the interior ambient noise level exceeds the third noise limit category, the maximum allowable interior noise level under said category shall be increased to reflect the maximum interior ambient noise level.
- C. The interior noise standard for various land use districts shall apply, unless otherwise specifically indicated, within structures located in designated zones with windows opened or closed as is typical of the season.

L.		
	Interior Noise Standard	
	Table <u>7.30.015</u>	

	Interior Noise Standard											
Land Use Category	Time Period	Noise Level										
Residential	Night (10 p.m. to 7 a.m.)	35 dBA										
	Day (7 a.m. to 10 p.m.)	45 dBA										
School	7 a.m. to 10 p.m. (while school is i	n 45 dBA										
	session)											
Hospital	Any time	45 dBA										

(Ord. 7489 § 22, 23(Exh. B), 2019; Ord. 6273 § 1 (part), 1996)

Chapter 7.35 - GENERAL NOISE REGULATIONS

7.35.010 - General noise regulations.

- A. It is unlawful for any person to make, continue, or cause to be made or continued any noise disturbance. The factors which should be considered in determining whether a violation of this section exists, include the following:
 - 1. The sound level of the objectionable noise.
 - 2. The sound level of the ambient noise.
 - 3. The proximity of the noise to dwelling units, hospital, hotels and the like.
 - 4. The zoning of the area.
 - 5. The population density of the area.
 - 6. The time of day or night.

- 7. The duration of the noise.
- 8. Whether the noise is recurrent, intermittent, or constant.
- 9. Whether the noise is produced by a commercial or noncommercial activity.
- 10. Whether the nature of the noise is usual or unusual.
- 11. Whether the noise is natural or unnatural.
- B. It is unlawful for any person to make, continue, or cause to be made or continued any noise disturbance.
- C. Any noise plainly audible through partitions common to two dwelling units within a building shall be prohibited.

(Ord. 7489 § 24, 2019; Ord. 7341 §6, 2016; Ord. 6959 §2, 2007; Ord. 6328 § 1, 1996; Ord. 6273 § 1 (part), 1996)

7.35.020 - Exemptions.

The following activities shall be exempt from the provisions of this title:

- A. *Emergency work*. The provisions of this title shall not apply to the emission of sound for the purpose of alerting persons to the existence of an emergency or in the performance of emergency work.
- B. *School events*. Sanctioned school activities conducted on public or private school grounds including but not limited to school athletic and entertainment events are exempted from the provisions of this chapter conducted between the hours of 7:00 a.m. and 11:00 p.m.
- C. *Federal or State preempted activities*. The provisions of this Chapter shall not apply to any other activity the noise level of which is regulated by state or federal law.
- D. *Minor maintenance to residential property*. The provisions of this title shall not apply to noise sources associated with minor maintenance to property used for residential purposes, provided the activities take place between the hours of 7:00 a.m. and 10:00 p.m.
- E. *Right-of-way construction*. The provisions of this title shall not apply to any work performed in the City right-of-ways when, in the opinion of the Public Works Director or his designee, such work will create traffic congestion and/or hazardous or unsafe conditions.
- F. *Public health, welfare and safety activities.* The provisions of this title shall not apply to construction maintenance and repair operations conducted by public agencies and/or utility companies or their contractors which are deemed necessary to serve the best interests of the public and to protect the public health, welfare and safety, including but not limited to, trash collection, street sweeping, debris and limb removal, removal of downed wires, restoring electrical service, repairing traffic signals, unplugging sewers, vacuuming catch basins, repairing of damaged poles, removal of abandoned vehicles, repairing of water hydrants and mains, gas lines, oil lines, sewers, storm drains, roads, sidewalks, etc.
- G. *Construction*. Noise sources associated with construction, repair, remodeling, or grading of any real property; provided a permit has been obtained from the City as required; and provided said activities do not take place between the hours of 7:00 p.m. and 7:00 a.m. on weekdays, between the hours of 5:00 p.m. and 8:00 a.m. on Saturdays, or at any time on Sunday or a federal holiday.
- H. *Warning devices.* Warning devices necessary for the protection of public safety, as for example fire, police, and ambulance sirens, including the testing of such devices, are exempted from the provisions of this title.

I. *Agriculture*. Any agricultural activity, operation, or facility, or appurtenances thereof (e.g., wind machines), co or maintained for commercial purposes, and in a manner consistent with proper and accepted customs and as allowed under California Civil Code Section 3482 as amended from time to time.

(Ord. 7489 § 25, 2019; Ord. 7341 § 6, 2016; Ord. 6917 § 1, 2006; Ord. 6328 § 2, 1996; Ord. 6273 § 1 (part), 1996)

Chapter 7.40 - VARIANCE PROCEDURE

7.40.010 - Variance procedure.

- A. The Community & Economic Development Director is authorized to grant variances for exemption from any provision of this title, and may limit area of applicability, noise levels, time limits, and other terms and conditions determined appropriate to protect the public health, safety, and welfare. The provisions of this section shall in no way affect the duty to obtain any permit or license required by law for such activities.
- B. Any person seeking a variance pursuant to this section shall file an application with the Community & Economic Development Director. The application shall be signed by the property owner or owner's representative using forms supplied by the Community & Economic Development Department-Planning Division. The application shall contain information which demonstrates that bringing the source of the sound or activity into compliance with this title would constitute an unreasonable hardship to the applicant, the community, or other persons. The Community & Economic Development Director may require additional information if it is necessary to make a determination regarding the variance request. The application shall be accompanied by a fee established by resolution of the City Council.
- C. A separate application shall be filed for each noise source; provided, however, several mobile sources under common ownership or several fixed sources on a single property may be combined into one application. Any person who claims to be adversely affected by the allowance of the variance may file a statement with the Community & Economic Development Director containing any information to support his claim. If the Community & Economic Development Director determines that a sufficient controversy exists regarding a variance application, the variance may be set for public hearing before the Planning Commission.
- D. Public notice of the consideration of a proposed variance from the standards of this title shall be provided by the Community & Economic Development Director by mailing such notice to property owners within 300 feet of the exterior boundaries of the property under consideration. The notice shall invite interested persons to notify the Planning Division of any concerns or comments within ten days of the date of the notice.
- E. In determining whether to grant or deny the application, the Community & Economic Development Director or the Planning Commission shall consider comments received from property owners within 300 feet, hardship on the applicant, the community, or other persons affected and property affected and any other adverse impacts. The requested variance may be granted in whole or in part and upon such terms and conditions as it deems necessary if, from the facts presented on the application, the Community & Economic Development Director or the Planning Commission finds that:
 - 1. The strict application of the provisions of this title would result in practical difficulties or unnecessary hardships inconsistent with the general purpose of this Title; 2. There are exceptional circumstances or conditions applicable to the property involved or to the intended use or development of the property that do not apply generally to other property in the same zone or neighborhood;

- 3. The granting of such variance will not be materially detrimental to the public welfare or injurious to the proprimprovements in the zone or neighborhood in which the property is located;
- 4. The granting of such variance will not be contrary to the objectives of any part of the adopted General Plan.
- F. A variance shall be granted by a notice to the applicant containing all the necessary conditions, including any time limits on the permitted activity. The variance shall not become effective until all the conditions are agreed to by the applicant. Noncompliance with any condition of the variance shall terminate the variance and subject the person holding it to those provisions of this title for which the variance was granted.
- G. A variance shall be valid for a period not exceeding one year after the date on which it was granted. Applications for extensions of the time limits specified in variances or for the modification of other substantial conditions shall be treated like applications for initial variances.
- H. In the event the Community & Economic Development Director does not approve an application for a variance within ten days after the application is filed it shall be placed on the agenda of the next regularly scheduled Planning Commission, unless the Commission refers the matter to the City Council.

(Ord. 7489 § 26, 2019; Ord. 7341 § 6, 2016; Ord. 6967 § 7, 2007; Ord. 6462 § 8-10, 1999; Ord. 6273 § 1 (part), 1996)

7.40.020 - Appeals.

Any person aggrieved by the approval or disapproval of a variance, may appeal the decision of the Community & Economic Development Director or Planning Commission to the City Council within ten days after the date of such approval or disapproval. The City Council shall hold a hearing thereon, upon notice to the applicant, considering the same criteria presented to the Community & Economic Development Director.

(Ord. 7489 § 27, 2019; Ord. 6462 § 11, 1999; Ord. 6273 § 1 (part), 1996)

Chapter 7.45 - SEVERABILITY

7.45.010 - Severability.

If any section, subsection, sentence, clause or phrase in this title is for any reason held to be invalid or unconstitutional by decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this title. The City Council hereby declares that it would have passed this title and each section, subsection, clause or phrase thereof irrespective of the fact that any one or more other sections, subsections, clauses or phrases may be declared invalid or unconstitutional.

(Ord. 6328 § 3, 1996)

APPENDIX D

OPERATIONAL NOISE LEVEL CALCULATIONS



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13563 - AC Marriot

CadnaA Noise Prediction Model: 13563_13.cna

Date: 15.09.21 Analyst: B. Lawson

Calculation Configuration

tion
Value
(user defined)
0.00
2000.01
0.00
0.50
999.99
1.01
0.00
On
On
960.00
480.00
0.00
5.00
10.00
0.00
Triangulation
2
100.00
100.00
1000.00 1000.00
1.00 1.00
0.10
some Obj
On
Incl. Ground Att. over Barrier
Dz with limit (20/25)
3.0 20.0 0.0
10
70
0.50
3.0
1

Receiver Noise Levels

Name	M.	ID		Level Lr		Lii	mit. Val	ue		Lanc	l Use	Height		Co	oordinates	
			Day	Night	CNEL	Day	Night	CNEL	Туре	Auto	Noise Type			Х	Υ	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
R1		R1	59.3	57.0	64.0	64.3	60.0	0.0				5.00	а	6221835.96	2302721.47	5.00
R2		R2	44.0	43.8	50.5	67.4	63.8	0.0				5.00	а	6222002.89	2302408.29	5.00
R3		R3	43.1	40.7	47.7	61.7	60.0	0.0				5.00	а	6221654.75	2302518.21	5.00
R4		R4	56.4	56.2	62.9	60.0	60.0	0.0				5.00	а	6221593.81	2302645.47	5.00
R5		R5	56.5	54.9	61.7	60.0	60.0	0.0				5.00	а	6221682.42	2302820.09	5.00

Point Source(s)

Name	M.	ID	R	esult. PW	L		Lw / L	i	Op	erating Ti	me	K0	Height	:	Co	oordinates	
			Day	Evening	Night	Туре	Value	norm.	Day	Special	Night				Х	Υ	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		2ndFlr01	91.5	91.5	91.5	Lw	91.5					0.0	16.00	а	6221685.60	2302656.28	16.00
POINTSOURCE		2ndFlr02	91.5	91.5	91.5	Lw	91.5					0.0	16.00	а	6221700.70	2302647.98	16.00
POINTSOURCE		2ndFlr03	91.5	91.5	91.5	Lw	91.5					0.0	16.00	а	6221716.99	2302638.21	16.00
POINTSOURCE		2ndFlr04	91.5	91.5	91.5	Lw	91.5					0.0	16.00	а	6221738.90	2302631.10	16.00
POINTSOURCE		2ndFlr05	91.5	91.5	91.5	Lw	91.5					0.0	16.00	а	6221757.26	2302620.15	16.00
POINTSOURCE		2ndFlr06	91.5	91.5	91.5	Lw	91.5					0.0	16.00	а	6221774.44	2302609.78	16.00
POINTSOURCE		POOL01	94.6	94.6	94.6	Lw	94.6		900.00	0.00	0.00	0.0	16.00	а	6221729.72	2302605.64	16.00
POINTSOURCE		POOL02	94.6	94.6	94.6	Lw	94.6		900.00	0.00	0.00	0.0	16.00	a	6221744.82	2302596.16	16.00
POINTSOURCE		POOL03	94.6	94.6	94.6	Lw	94.6		900.00	0.00	0.00	0.0	16.00	а	6221757.56	2302588.76	16.00
POINTSOURCE		POOL04	94.6	94.6	94.6	Lw	94.6		900.00	0.00	0.00	0.0	16.00	а	6221731.79	2302583.43	16.00
POINTSOURCE		POOL05	94.6	94.6	94.6	Lw	94.6		900.00	0.00	0.00	0.0	16.00	a	6221744.53	2302575.73	16.00

Name	M.	ID	R	esult. PW	'L		Lw/L	i	Оре	erating Ti	me	K0	Height	:	Co	oordinates	
			Day	Evening	Night	Туре	Value	norm.	Day	Special	Night				Х	Υ	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		POOL06	94.6	94.6	94.6	Lw	94.6		900.00	0.00	0.00	0.0	16.00	а	6221771.47	2302581.06	16.00
POINTSOURCE		POOL07	94.6	94.6	94.6	Lw	94.6		900.00	0.00	0.00	0.0	16.00	а	6221745.71	2302609.19	16.00
POINTSOURCE		POOL08	94.6	94.6	94.6	Lw	94.6		900.00	0.00	0.00	0.0	16.00	а	6221760.52	2302600.60	16.00
POINTSOURCE		8thFlr01	91.5	91.5	91.5	Lw	91.5					0.0	79.00	а	6221688.63	2302662.53	79.00
POINTSOURCE		8thFlr02	91.5	91.5	91.5	Lw	91.5					0.0	79.00	а	6221703.79	2302653.65	79.00
POINTSOURCE		8thFlr03	91.5	91.5	91.5	Lw	91.5					0.0	79.00	а	6221697.15	2302641.37	79.00
POINTSOURCE		8thFlr04	91.5	91.5	91.5	Lw	91.5					0.0	79.00	а	6221682.22	2302649.89	79.00
POINTSOURCE		AC01	88.9	88.9	88.9	Lw	88.9					0.0	5.00	g	6221691.27	2302656.66	5.00
POINTSOURCE		AC02	88.9	88.9	88.9	Lw	88.9					0.0	5.00	g	6221637.60	2302573.43	93.00
POINTSOURCE		AC03	88.9	88.9	88.9	Lw	88.9					0.0	5.00	g	6221783.90	2302484.74	93.00
POINTSOURCE		AC04	88.9	88.9	88.9	Lw	88.9					0.0	5.00	g	6221838.48	2302568.88	93.00

Barrier(s)

-		,														
Name	M.	ID	Absc	rption	Z-Ext.	Canti	ilever	H	lei	ght		Coordinates				
			left	right		horz.	vert.	Begin		End		х	У	Z	Ground	
					(ft)	(ft)	(ft)	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)	
BARRIERS		BARRIERS00001			3.00			13.00	а	13.00	а	6221672.48	2302649.40	13.00	0.00	
												6221685.07	2302671.00	13.00	0.00	
												6221788.68	2302608.63	13.00	0.00	

Building(s)

bullair	ıgı	S J									
Name N		ID	RB	Residents	Absorption	Height			Coordinat	es	
						Begin		х	у	Z	Ground
						(ft)		(ft)	(ft)	(ft)	(ft)
BUILDING		BUILDING00001	х	0		25.00	а	6221786.07	2302754.54	25.00	0.00
								6221875.91	2302918.60	25.00	0.00
								6221979.82	2302859.23	25.00	0.00
								6221886.07	2302695.17	25.00	0.00
BUILDING		BUILDING00002	х	0		25.00	a	6221625.91	2302846.73	25.00	0.00
								6221669.66	2302919.38	25.00	0.00
								6221714.97	2302889.70	25.00	0.00
								6221673.57	2302819.38	25.00	0.00
BUILDING		BUILDING00003	х	0		25.00	а	6221482.16	2302751.42	25.00	0.00
								6221601.69	2302674.07	25.00	0.00
								6221559.50	2302605.32	25.00	0.00
							П	6221474.35	2302654.54	25.00	0.00
								6221464.97	2302635.79	25.00	0.00
							П	6221425.91	2302657.67	25.00	0.00
BUILDING		BUILDING00004	х	0		25.00	a	6221618.10	2302535.01	25.00	0.00
							П	6221717.32	2302480.32	25.00	0.00
							П	6221698.57	2302449.07	25.00	0.00
								6221749.35	2302415.48	25.00	0.00
							П	6221720.44	2302360.79	25.00	0.00
							П	6221647.79	2302405.32	25.00	0.00
								6221612.63	2302335.01	25.00	0.00
							П	6221527.47	2302382.67	25.00	0.00
BUILDING		BUILDING00005	х	0		25.00	а	6221857.16	2302574.07	25.00	0.00
								6221953.25	2302511.57	25.00	0.00
							П	6221924.35	2302454.54	25.00	0.00
							П	6221938.41	2302445.17	25.00	0.00
								6221917.32	2302402.20	25.00	0.00
								6221798.57	2302472.51	25.00	0.00
BUILDING		BUILDING00006	х	0		25.00	а	6221942.32	2302767.04	25.00	0.00
							П	6222054.82	2302696.73	25.00	0.00
							П	6222011.85	2302624.07	25.00	0.00
								6221897.79	2302685.79	25.00	0.00
BUILDING		BUILDING00007	х	0		88.00	а	6221671.06	2302649.49	88.00	0.00
							П	6221723.94	2302616.67	88.00	0.00
								6221704.34	2302581.67	88.00	0.00
							П	6221771.85	2302538.43	88.00	0.00
							П	6221793.00	2302574.51	88.00	0.00
							П	6221784.60	2302586.18	88.00	0.00
							П	6221795.96	2302604.84	88.00	0.00
							П	6221843.09	2302576.85	88.00	0.00
							П	6221841.53	2302574.82	88.00	0.00
							П	6221848.64	2302570.40	88.00	0.00
							П	6221803.16	2302491.58	88.00	0.00
								6221798.30	2302494.71	88.00	0.00
								6221786.84	2302474.91	88.00	0.00
							П	6221625.14	2302570.99	88.00	0.00