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December 17, 2012
Project No 44-006

Mr. Brett Leon
Pleasant Partners, LLC
c/o Sares Regis Group
901 Mariners Island Boulevard
Suite 700
Pleasanton, CA 94404

Subject: Noise Assessment Study for the Planned "The Residences at California Center", Multi-Family Development, Owens Drive, Pleasanton

Dear Mr. Leon:

This report presents the results of a noise assessment study for the planned "The Residences at California Center" multi-family development along Owens Drive in Pleasanton, as shown on the Architectural Site Plan, Ref. (a). The noise exposures at the site were evaluated against the standards of the City of Pleasanton Noise Element, Ref. (b), and the State of California Code of Regulations, Title 24, Ref. (c), which applies to all new multi-family housing. The analysis of the on-site sound level measurements indicates that the existing noise environment at the site is due primarily to traffic sources on Owens Drive, Rosewood Drive and Interstate 580. Traffic associated with the nearby retail center does not significantly impact the site. The results of the study indicate that exterior and interior noise exposures will be within the limits of the standards. Noise mitigation measures will not be required.

Section I of this report contains a summary of our findings. Subsequent sections contain the site, traffic, and project descriptions, analyses, and evaluations. Attached hereto are Appendices A, B, and C, which include the list of references, descriptions of the applicable standards, definitions of the terminology, descriptions of the acoustical instrumentation used for the field survey, and the on-site noise measurement data and calculation tables.

I. Summary of Findings

The noise exposures presented herein were evaluated against the noise standards of the City of Pleasanton Noise Element, which utilizes the Day-Night Level (DNL) 24-hour descriptor to define acceptable noise levels for various land uses. The standards specify a goal of 65 decibels (dB) DNL for multi-family residential exterior areas where use is a major consideration, e.g., recreation areas of multi-family housing projects. The standards specify a limit of 45 dB DNL for residential interior living spaces. Project-generated traffic noise is limited to 55 dB DNL at existing sensitive receptor locations.

The Title 24 standards also use the DNL descriptor and specify that when the exterior noise exposures exceed 60 dB DNL at planned multi-family dwelling units an acoustical analysis must be performed to limit interior noise exposures to 45 dB DNL or less.

The Title 24 standards also specify minimum sound insulation ratings for common partitions separating different dwelling units and dwelling units from interior common spaces. The standards specify that common walls must have a design Sound Transmission Class (STC) rating of 50 or higher. Common floor/ceiling assemblies must have minimum design ratings of STC 50 and Impact Insulation Class (IIC) of 50. As design details for the interior partitions of the project were not available at the time of this study, an evaluation of the interior partitions has not been made.

The noise exposures shown below represent the noise environment for project site conditions.

A. Exterior Noise Exposures

Table I, below, provides the existing and future noise exposures at the most impacted building setbacks (from the most significant source at that particular location), the tot lot/swimming pool area, the podium building courtyard and the common open space at the south side of podium building along Owens Drive.

TABLE I

Exterior Noise Exposures, dB DNL

	Rosewood		Owens		I-580		TOTAL
Location	Dist., ft.	DNL (exist./future)	Dist., ft.	DNL (exist./future)	Dist., ft.	DNL (exist./future)	**DNL (exist./future)**
Bldg. G1 Setback	105	58/59	410	54/55	1,880	58/59	**62/63**
Bldg. G2 Setback	350	50/51	110	62-63	2,390	46-47	**62-63**
Bldg G3 Setback	480	48/49	84	64/65	2,400	46/47	**64/65**
Podium	700	46/47	75	64/65	2,500	45/46	**64/65**
Tot Lot & Swimming Pool	520	48/49	400	53/54	2,100	57/58	**59/60**
Podium Courtyard	850	38/38	270	33/34	2,350	46/47	**47/48**
South Open Space	800	45/46	75	64/65	2,500	45/46	**64/65**

The results of this study reveal that the exterior noise exposures at the most impacted planned building setbacks and in the common exterior areas of the project will be within the 65 dB DNL limit of the City of Pleasanton Noise Element standard of 65 dB DNL for multi-family residential housing. In addition, this analysis reveals that the noise exposures are highest at the site on weekdays and that traffic associated with the Wal-Mart and other retails stores does not significantly effect the noise environment. Noise mitigation measures for exterior spaces will not be required.

The noise at the building setbacks will exceed the 60 dB DNL criterion of Title 24 by up to 5 dB. Therefore, an acoustical analysis in required. This study is intended to satisfy that requirement.

B. Interior Noise Exposures

Table II, below provides the existing and future interior noise exposures in the most impacted living spaces of the project.

- The interior noise exposures in the most impacted planned dwelling units of the G1 building closest to Rosewood Drive and I-580 will be up to 37 and 38 dB DNL under and existing and future traffic conditions, respectively.

- The interior noise exposures in the most impacted planned dwelling units of the G2 building closest to Owens Drive will be up to 37 and 38 dB DNL under and existing and future traffic conditions, respectively.

- The interior noise exposures in the most impacted planned dwelling units of the G3 buildings closest to Owens Drive will be up to 39 and 40 dB DNL under and existing and future traffic conditions, respectively.

- The interior noise exposures in the most impacted planned dwelling units of the Podium building closest to Owens Drive will be up to 39 and 40 dB DNL under and existing and future traffic conditions, respectively.

The interior noise exposures will be within the 45 dB DNL limits of the City of Pleasanton Noise Element and Title 24 standards. Noise mitigation measures for the interior spaces will not be required.

C. Project-Generated Traffic Noise Exposures

Table III, below provides the project-generated traffic noise exposures at the nearest and most impacted setback of uses along the respective roadways. The traffic volumes shown in the Table are Average Daily Traffic (ADT) volumes, which are assumed to be 10 time the highest peak hour volume provided in the Traffic Impact Analysis (TIA), Ref. (d).

TABLE III

Project-Generated Traffic Noise Exposures, dB DNL

TIA Intersection	Roadway	Between		AM Peak	PM Peak	ADT	Speed	Dist. to C_L	DNL
1	Hacienda	580	Dublin Blvd	17	22	220	35	90'	43
2	Hacienda	580	Owens	74	98	980	40	130'	49
3a	Owens	Hacienda	Hopyard	16	22	220	45	100'	46
3b	Hacienda	Owens	Stoneridge	8	11	110	40	90'	52
3c	Owens	Hacienda	Rosewood	98	130	1,300	40	115'	51
4a	Rosewood	North of Shopping Center		0	0	0	NA		
4b	Rosewood	At Shopping Center		0	0	0	NA		
5a	Rosewood	Owens	Shopping Center	2	8	80	35	105'	38
5b	Owens	Rosewood	Retail Driveway	97	129	1,290	40	115'	51
6	Owens	Retail Driveway	Main Driveway	96	119	1,190	40	175'	48
7	Owens	Main Driveway	Secondary Driveway	66	86	860	40	160'	47
8	Owens	Secondary Driveway	W. Las Positas	65	87	870	40	75'	52
9a	W. Las Positas	Owens	Santa Rita	57	76	760	40	85'	51
9b	W. Las Positas	Owens	Stoneridge	8	11	110	40	90'	42

As shown in Table III, the project-generated traffic noise exposure will be below the 55 dB DNL limit of the City of Pleasanton Noise Element standards at all receptor locations along roadways identified in the Traffic Impact Analysis. Noise mitigation measures for project-generated noise will not be required.

II. Site, Traffic and Project Descriptions

The planned project site is located along the north side of Owens Drive and along the east side of Rosewood Drive in Pleasanton. The site is relatively flat and at-grade with the surrounding roadways and land uses. The site is currently a parking lot for the Carr America Conference Center. Interstate 580 is to the north of the Carr America buildings. Surrounding land uses include the Archstone Hacienda apartments across Owens Drive to the south, the Avalon Pleasanton apartments adjacent to the east, the Carr America Conference Center adjacent to the north and a Red Robin restaurant and Wal-Mart across Rosewood Drive to the west.

The primary source of noise at the site vicinity is traffic on Owens Drive, which carries a traffic volume of 25,700 vehicles Average Daily Traffic (ADT), as shown in the City of Pleasanton Noise Element, Ref. (b). Rosewood Drive carries an ADT of 6,500 vehicles. Note that the most recent traffic volume data reported are for year 2007.

I-580 carries an Average Daily Traffic (ADT) of 192,000 vehicles (2010), as reported by CalTrans, Ref. (e).

There are no other significant sources of noise in the site vicinity.

The planned project includes the construction of four three-story residential buildings (G1, G2, and two G3 buildings), one four-story residential building (podium), two retail buildings and a common area, which includes the leasing building, fitness building, tot lot and swimming pool. Ingress and egress to the project will be by way of driveways off of Owens Drive and Rosewood Drive and a connection to the Carr America Conference Center.

III. Analysis of the Noise Levels

A. Existing Noise Levels

To determine the existing noise environment at the site, continuous recordings of the sound levels were made at two locations. Location 1 was 110 ft. from the centerline of Owens Drive. Location 2 was 100 ft. from the centerline of Rosewood Drive. The meters were placed at an elevation of 12 ft. above the roadway elevations. The measurement locations are shown on Figure 1 on the following page.

The measurements were made on February 23-27, 2012 for a continuous period of more than 72 hours, from a Thursday to Monday, and included representative hours of the daytime and nighttime periods of the DNL index for a complete Friday, Saturday and Sunday. The weekend measurement were made to determine if traffic associated with the Wal-Mart or other retail uses in the area significantly effected the on-site noise environment. The noise level data were acquired using Larson-Davis Model 812 Precision Integrating Sound Level Meters, which yield by direct readout, a series of descriptors of the sound levels versus time which are commonly used to describe community noise, as described in Appendix B. The measured descriptors include the L_1, L_{10}, L_{50}, and L_{90}, i.e., those levels exceeded 1%, 10%, 50% and 90% of the time. Also measured were the maximum and minimum levels and the continuous equivalent-energy levels (L_{eq}), which are used to calculate the DNL's. The results of the measurements are shown in the data table in Appendix C.

The results of the field survey reveal that the Friday L_{eq}'s at Location 1, 110 ft. from the centerline of Owens Drive ranged from 55.3 to 65.5 dBA during the daytime and from 46.9 to 58.0 dBA at night. On Saturday, the L_{eq}'s ranged from 53.3 to 58.1 dBA during the daytime and from 49.4 to 53.8 dBA at night. On Sunday, the L_{eq}'s ranged from 52.6 to 58.2 dBA during the daytime and from 47.0 to 51.8 dBA at night.

At Location 2, 110 ft. from the centerline of Rosewood Drive, the L_{eq}'s ranged from 57.2 to 63.1 dBA during the daytime and from 45.8 to 58.7 dBA at night. On Saturday, the L_{eq}'s ranged from 51.6 to 59.4 dBA during the daytime and from 49.2 to 56.0 dBA at night. On Sunday, the L_{eq}'s ranged from 51.5 to 58.9 dBA during the daytime and from 45.2 to 53.1 dBA at night.

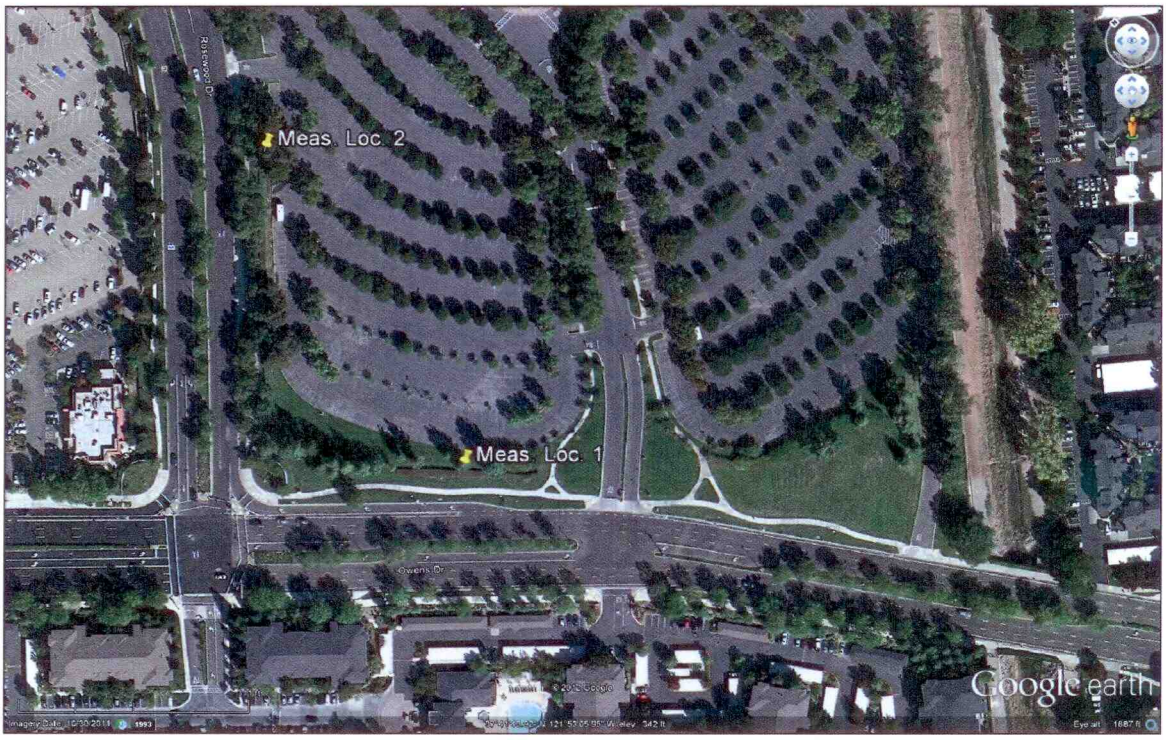


FIGURE 1

Traffic noise dissipates at the rate of 3 to 6 dB for each doubling of the distance from the source (centerline of the roadway) to the receiver. Therefore, other locations on the site at greater distances to the roadways will have lower noise levels. Additional acoustical shielding will be provided by interposed buildings, or portions thereof, of the project.

Vehicular traffic noise contains a wide spectrum of frequency components (from 100 to 10,000 Hertz), which are associated with engine, tire, drivetrain, exhaust and other sources. The frequency components are centered primarily in the 250 and 500 Hz octave bands and were used herein as part of the calculation methods.

B. Future Noise Levels

The future traffic volume for Owens Drive is expected to increase from the existing (2007) 25,700 ADT to 28,000 under General Plan buildout conditions, Ref. (b). This increase in traffic volume yields a 1 decibel increase in the traffic noise levels.

The future traffic volume for Rosewood Drive is expected to increase from the existing (2007) 6,500 ADT to 7,000 under General Plan buildout conditions, Ref. (b). This increase in traffic volume yields a 1 decibel increase in the traffic noise levels.

Future traffic volume information for I-580 was not available from CalTrans. Thus, reference was made to the 1992 traffic volume of 135,000 vehicles ADT, Ref. (f), and the 2010 volume of 192,000 ADT, Ref. (e). Over the eighteen year span from 1992 to 2010, the average annual traffic volume growth rate was calculated to be 1.98% per year. Applying this growth rate to the future 15 years, the 2025 traffic volume is estimated to be 257,648 vehicles ADT. This increase in traffic volume yields a 1 decibel increase in traffic noise levels.

IV. Evaluations of the Noise Exposures

A. Exterior Noise Exposures

To evaluate the on-site noise exposures against the City of Pleasanton Noise Element standards and the Title 24 criterion, the DNL's for the survey locations were calculated by decibel averaging of the L_{eq}'s as they apply to the daily time periods of the DNL index. The DNL is a 24-hour noise descriptor that uses the measured L_{eq} values to calculate a 24-hour time-weighted average noise exposure. The formula used to calculate the DNL is described in Appendix B and the results of the calculations are shown in Appendix C. Adjustments were made to the measured noise levels to account for the various building setback distances from the roadway and measurement locations using methods established by the Highway Research Board, Ref. (g).

The results of the calculations indicate that the existing exterior noise exposures at the measurement distance and planned G2 building setback of 110 ft. from the centerline of Owens Drive are 62 dB DNL on Friday (weekday), 59 dB DNL on Saturday and 58 dB DNL on Sunday. Under future traffic conditions, the noise exposures are expected to increase to 63 dB DNL, 60 dB DNL and 59 dB DNL on weekdays, Saturdays and Sunday, respectively.

The existing exterior noise exposures at the planned G3 minimum building setback of 84 ft. from the centerline of Owens Drive are 64 dB DNL on Friday (weekday), 61 dB DNL on Saturday and 60 dB DNL on Sunday. Under future traffic conditions, the noise exposures are expected to increase to 65 dB DNL, 62 dB DNL and 61 dB DNL on weekdays, Saturdays and Sunday, respectively.

The existing exterior noise exposures at the planned podium building setback of 75 ft. from the centerline of Owens Drive are 64 dB DNL on Friday (weekday), 61 dB DNL on Saturday and 60 dB DNL on Sunday. Under future traffic conditions, the noise exposures are expected to increase to 65 dB DNL, 62 dB DNL and 61 dB DNL on weekdays, Saturdays and Sunday, respectively.

The existing exterior noise exposures at the measurement distance and planned G1 building setback of 100-105 ft. from the centerline of Rosewood Drive are 62 dB DNL on Friday (weekday), 60 dB DNL on Saturday and 58 dB DNL on Sunday. Under future traffic conditions, the noise exposures are expected to increase to 63 dB DNL, 61 dB DNL and 59 dB DNL on weekdays, Saturdays and Sunday, respectively.

The exterior noise exposures at the tot lot and swimming pool area were calculated to be 59 and 60 dB DNL under existing and future traffic conditions, respectively.

The exterior noise exposures at the podium building courtyard were calculated to be 47 and 48 dB DNL under existing and future traffic conditions, respectively. These noise exposures include the barrier effect of the four story structure surrounding the courtyard and the sound reflections that will occur within the courtyard area.

The exterior noise exposures at the common open space at the south side of the podium building along Owens Drive were calculated to be up to 64 and 65 dB DNL under existing and future traffic conditions, respectively.

The noise exposures at the exterior common areas will be in compliance with the City of Pleasanton Noise Element standards. Noise mitigation measures for the exterior areas will not be required.

The exterior noise exposures at the most impacted building facades will be up to 5 dB in excess of the Title 24 criterion.

B. Interior Noise Exposures

To evaluate the interior noise exposures in project living spaces, a 25 dB reduction was applied to the exterior noise exposure to represent the attenuation provided by the building shell under a closed window condition. The closed window condition is applied to this project as the Mechanical Code will require full time ventilation, thereby allowing residents to keep their windows closed all of the time for noise control, at their discretion. This condition also assumes that windows have standard dual-pane thermal insulating glass (min. STC 28) and exterior walls rated min. STC 38. Thus, the existing and future interior noise exposures in living spaces closest to Owens Drive will be 37 and 38 dB DNL at building G2, 39 and 40 dB DNL at buildings G3 and Podium, and 37 and 38 dB DNL at building G1. Thus, noise exposures will be within the 45 dB DNL limits of the City of Pleasanton Noise Element and Title 24 standards.

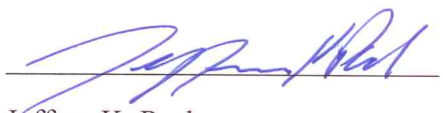
As shown by the above evaluations, the exterior and interior noise exposures will be in compliance with the standards. Noise mitigation measures will not be required.

This report presents the results of a noise assessment study for the planned "The Residences at California Center" multi-family development along Owens Drive in Pleasanton. The study findings are based on field measurements and other data and are correct to the best of our knowledge. However, significant changes in the future traffic volumes, speed limits, motor vehicle technology, noise regulations or other changes beyond our control may produce long-range noise results different from our estimates.

If you have any questions or would like an elaboration on this report, please call me.

Sincerely,

EDWARD L. PACK ASSOC., INC.



Jeffrey K. Pack
President

Attachments: Appendices A, B, and C

APPENDIX A

References

(a) Architectural Site Plan, "The Residences at California Center, Pleasanton", by Dahlin Group Architecture & Planning, June 29, 2012

(b) Noise Element of the General Plan, City of Pleasanton, July 21, 2009

(c) California Code of Regulations, Title 24, Part II, "Sound Transmission Control", Revised 1989

(d) Transportation Assessment, Residences at California Center, WC11-2878.01, by Fehr & Peers, December 4, 2012

(e) "http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/2010all/route505-980i.htm", State of California Department of Transportation, Division of Traffic Operations

(f) "http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/1992adt.xls", State of California Department of Transportation, Division of Traffic Operations

(g) Highway Research Board, "Highway Noise - A Design Guide for Highway Engineers", Report 117, 1971

APPENDIX B

Noise Standards, Terminology and Instrumentation

1. Noise Standards

The City of Pleasanton Noise Element, Chapter VIII, Adopted July 21, 2009, specifies exterior and interior noise exposure standards.

Residential Exterior

Source		Standard
Traffic	Single-family (rear yards)	60 dB DNL
	Multi-family (common areas)	65 dB DNL
Railroad		70 dB DNL
Aircraft		55 dB DNL 50 dBA L_{max} Bedrooms 55 dBA L_{max} Living Spaces

Residential Interior

45 dB DNL

For railroad sources: 50 dBA L_{max} Bedrooms
55 dBA L_{max} Other Interior Spaces

If more than 4 trains daytime or any trains nighttime

Commercial Interior 45 dBA L_{eq}

B. Title 24 Noise Standards

The California Code of Regulations, "Sound Transmission Control", Title 24, Part II, applies to all new multi-family dwellings including condominiums, townhouses, apartments, hotels and motels. The standards, which utilize the Day-Night Level (DNL) descriptor, establish an exterior reference or criterion level of 60 dB DNL, and specify that multi-family buildings to be located within an annual DNL zone of 60 dB or greater require an acoustical analysis. The analysis report must show that the planned buildings provide adequate attenuation to limit intruding noise from exterior sources to an annual DNL of 45 dB or less in any habitable space. The Community Noise Equivalent Level (CNEL) descriptor, which is similar to the DNL, may also be used, as the DNL and CNEL are considered to be equivalent.

The Title 24 standards also establish minimum sound insulation requirements for interior partitions separating different dwelling units from each other and dwelling units from common spaces such as garages, corridors, equipment rooms, etc. The common interior walls and floor/ceiling assemblies must achieve a minimum Sound Transmission Class (STC) rating of 50 for airborne noise. Common floor/ceiling assemblies must achieve an Impact Insulation Class (IIC) rating of 50 for impact noise. These ratings are based on laboratory tested partitions. Field tested partitions must achieve ratings of NIC and FIIC 45.

2. Terminology

A. Statistical Noise Levels

Due to the fluctuating character of urban traffic noise, statistical procedures are needed to provide an adequate description of the environment. A series of statistical descriptors have been developed which represent the noise levels exceeded a given percentage of the time. These descriptors are obtained by direct readout of the Community Noise Analyzer. Some of the statistical levels used to describe community noise are defined as follows:

L_1 - A noise level exceeded for 1% of the time.

L_{10} - A noise level exceeded for 10% of the time, considered to be an "intrusive" level.

L_{50} - The noise level exceeded 50% of the time representing an "average" sound level.

L_{90} - The noise level exceeded 90 % of the time, designated as a "background" noise level.

L_{eq} - The continuous equivalent-energy level is that level of a steady-state noise having the same sound energy as a given time-varying noise. The L_{eq} represents the decibel level of the time-averaged value of sound energy or sound pressure squared and is used to calculate the DNL and CNEL.

B. Day-Night Level (DNL)

Noise levels utilized in the standards are described in terms of the Day-Night Level (DNL). The DNL rating is determined by the cumulative noise exposures occurring over a 24-hour day in terms of A-Weighted sound energy. The 24-hour day is divided into two subperiods for the DNL index, i.e., the daytime period from 7:00 a.m. to 10:00 p.m., and the nighttime period from 10:00 p.m. to 7:00 a.m. A 10 dB weighting factor is applied (added) to the noise levels occurring during the nighttime period to account for the greater sensitivity of people to noise during these hours. The DNL is calculated from the measured L_{eq} in accordance with the following mathematical formula:

$$DNL = [(L_d+10\log_{10}15) \,\&\, (L_n+10+10\log_{10}9)] - 10\log_{10}24$$

Where:

L_d = L_{eq} for the daytime (7:00 a.m. to 10:00 p.m.)
L_n = L_{eq} for the nighttime (10:00 p.m. to 7:00 a.m.)
24 - indicates the 24-hour period
& - denotes decibel addition.

C. A-Weighted Sound Level

The decibel measure of the sound level utilizing the "A" weighted network of a sound level meter is referred to as "dBA". The "A" weighting is the accepted standard weighting system used when noise is measured and recorded for the purpose of determining total noise levels and conducting statistical analyses of the environment so that the output correlates well with the response of the human ear.

3. Instrumentation

The on-site field measurement data were acquired by the use of one or more of the precision acoustical instruments shown below. The acoustical instrumentation provides a direct readout of the L exceedance statistical levels including the equivalent-energy level (L_{eq}). Input to the meters was provided by a microphone extended to a height of 5 ft. above the ground. The meter conforms to ANSI S1.4 for Type 1 instruments. The "A" weighting network and the "Fast" response setting of the meter were used in conformance with the applicable ISO and IEC standards. All instrumentation was acoustically calibrated before and after field tests to assure accuracy.

Bruel & Kjaer 2231 Precision Integrating Sound Level Meter
Larson Davis LDL 812 Precision Integrating Sound Level Meter
Larson Davis 2900 Real Time Analyzer

APPENDIX C

Noise Measurement Data and Calculation Tables

DNL CALCULATIONS

CLIENT: Regis Homes/RREEF
FILE: 44-006
PROJECT: Carr America Apartments
DATE: 2/24-26-2012
SOURCE: OWENS DR./ROSEWOOD DR/WAL-MART

LOCATION 1 Owens Dr.
Dist. To Source 110 ft.

TIME	Friday Leq	10^Leq/10		
7:00 AM	60.2	1047128.5		
8:00 AM	62.0	1584893.2		
9:00 AM	57.8	602559.6		
10:00 AM	58.8	758577.6		
11:00 AM	57.3	537031.8		
12:00 PM	62.6	1819700.9		
1:00 PM	65.5	3548133.9		
2:00 PM	59.6	912010.8		
3:00 PM	64.3	2691534.8		
4:00 PM	59.7	933254.3		
5:00 PM	60.2	1047128.5		
6:00 PM	58.8	758577.6		
7:00 PM	59.0	794328.2		
8:00 PM	56.9	489778.8		
9:00 PM	55.3	338844.2	SUM=	17863483
10:00 PM	54.9	309029.5	Ld=	60.8
11:00 PM	55.5	354813.4		
12:00 AM	49.5	89125.1		
1:00 AM	46.9	48977.9		
2:00 AM	48.0	63095.7		
3:00 AM	48.0	63095.7		
4:00 AM	51.6	144544.0		
5:00 AM	55.4	346736.9		
6:00 AM	58.0	630957.3	SUM=	2050376
			Ld=	53.6

Daytime Level=	72.6
Nighttime Level=	73.1
DNL=	**62**
24-Hour Leq=	59.2

LOCATION 1 Owens Dr.
Dist. To Source 110 ft.

TIME	Saturday Leq	10^Leq/10		
7:00 AM	55.3	338844.2		
8:00 AM	55.9	389045.1		
9:00 AM	56.7	467735.1		
10:00 AM	56.3	426579.5		
11:00 AM	57.4	549540.9		
12:00 PM	58.0	630957.3		
1:00 PM	56.8	478630.1		
2:00 PM	57.5	562341.3		
3:00 PM	58.0	630957.3		
4:00 PM	58.1	645654.2		
5:00 AM	57.4	549540.9		
6:00 AM	56.6	457088.2		
7:00 PM	55.2	331131.1		
8:00 PM	53.8	239883.3		
9:00 PM	53.3	213796.2	SUM=	6911725
10:00 PM	52.6	181970.1	Ld=	56.6
11:00 PM	50.9	123026.9		
12:00 AM	51.0	125892.5		
1:00 AM	50.0	100000.0		
2:00 AM	49.4	87096.4		
3:00 AM	50.0	100000.0		
4:00 AM	51.4	138038.4		
5:00 AM	52.3	169824.4		
6:00 AM	53.8	239883.3	SUM=	1265732
			Ld=	51.5

Daytime Level=	68.4
Nighttime Level=	71.0
DNL=	**59**
24-Hour Leq=	55.3

LOCATION 1 Owens Dr.
Dist. To Source 110 ft.

TIME	Sunday Leq	10^Leq/10		
7:00 AM	53.5	223872.1		
8:00 AM	52.9	194984.5		
9:00 AM	54.6	288403.2		
10:00 AM	57.9	616595.0		
11:00 AM	56.3	426579.5		
12:00 PM	55.2	331131.1		
1:00 PM	56.0	398107.2		
2:00 PM	56.4	436515.8		
3:00 PM	57.8	602559.6		
4:00 PM	58.2	660693.4		
5:00 AM	56.9	489778.8		
6:00 AM	56.0	398107.2		
7:00 PM	54.9	309029.5		
8:00 PM	54.9	309029.5		
9:00 PM	52.6	181970.1	SUM=	5867357
10:00 PM	50.1	102329.3	Ld=	55.9
11:00 PM	49.7	93325.4		
12:00 AM	49.7	93325.4		
1:00 AM	49.7	93325.4		
2:00 AM	47.0	50118.7		
3:00 AM	48.2	66069.3		
4:00 AM	50.0	100000.0		
5:00 AM	49.4	87096.4		
6:00 AM	51.8	151356.1	SUM=	836946
			Ld=	49.7

Daytime Level=	67.7
Nighttime Level=	69.2
DNL=	**58**
24-Hour Leq=	54.5

DNL CALCULATIONS

CLIENT: Regis Homes/RREEF
FILE: 44-006
PROJECT: Carr America Apartments
DATE: 2/24-26-2012
SOURCE: OWENS DR./ROSEWOOD DR/WAL-MART

LOCATION 2	Rosewood Dr.			
Dist. To Source	100 ft.			
	Friday			
TIME	Leq	10^Leq/10		
7:00 AM	60.8	1202264.4		
8:00 AM	63.1	2041737.9		
9:00 AM	58.8	758577.6		
10:00 AM	56.9	489778.8		
11:00 AM	58.0	630957.3		
12:00 PM	60.5	1122018.5		
1:00 PM	61.2	1318256.7		
2:00 PM	58.5	707945.8		
3:00 PM	59.5	891250.9		
4:00 PM	59.6	912010.8		
5:00 PM	61.0	1258925.4		
6:00 PM	60.1	1023293.0		
7:00 PM	59.2	831763.8		
8:00 PM	57.7	588843.7		
9:00 PM	57.2	524807.5	SUM=	14302432
10:00 PM	54.8	301995.2	Ld=	59.8
11:00 PM	53.0	199526.2		
12:00 AM	48.8	75857.8		
1:00 AM	45.8	38018.9		
2:00 AM	46.7	46773.5		
3:00 AM	47.1	51286.1		
4:00 AM	51.4	138038.4		
5:00 AM	57.0	501187.2		
6:00 AM	58.7	741310.2	SUM=	2093994
			Ld=	53.7
	Daytime Level=	71.6		
	Nighttime Level=	73.2		
	DNL=	**62**		
	24-Hour Leq=	58.3		

LOCATION 2	Rosewood Dr.			
Dist. To Source	100 ft.			
	Saturday			
TIME	Leq	10^Leq/10		
7:00 AM	55.4	346736.9		
8:00 AM	57.1	512861.4		
9:00 AM	58.0	630957.3		
10:00 AM	58.1	645654.2		
11:00 AM	59.2	831763.8		
12:00 PM	58.5	707945.8		
1:00 PM	58.1	645654.2		
2:00 PM	58.5	707945.8		
3:00 PM	59.4	870963.6		
4:00 PM	58.9	776247.1		
5:00 AM	58.1	645654.2		
6:00 AM	57.7	588843.7		
7:00 PM	56.1	407380.3		
8:00 PM	55.6	363078.1		
9:00 PM	51.6	144544.0	SUM=	8826230
10:00 PM	52.7	186208.7	Ld=	57.7
11:00 PM	49.2	83176.4		
12:00 AM	56.0	398107.2		
1:00 AM	50.3	107151.9		
2:00 AM	49.2	83176.4		
3:00 AM	49.9	97723.7		
4:00 AM	50.3	107151.9		
5:00 AM	54.0	251188.6		
6:00 AM	54.6	288403.2	SUM=	1602288
			Ld=	52.5
	Daytime Level=	69.5		
	Nighttime Level=	72.0		
	DNL=	**60**		
	24-Hour Leq=	56.4		

LOCATION 2	Rosewood Dr.			
Dist. To Source	100 ft.			
	Sunday			
TIME	Leq	10^Leq/10		
7:00 AM	51.6	144544.0		
8:00 AM	51.5	141253.8		
9:00 AM	53.7	234422.9		
10:00 AM	55.3	338844.2		
11:00 AM	56.2	416869.4		
12:00 PM	56.5	446683.6		
1:00 PM	57.6	575439.9		
2:00 PM	57.5	562341.3		
3:00 PM	58.9	776247.1		
4:00 PM	58.9	776247.1		
5:00 AM	58.1	645654.2		
6:00 AM	57.4	549540.9		
7:00 PM	55.3	338844.2		
8:00 PM	57.3	537031.8		
9:00 PM	53.9	245470.9	SUM=	6729435
10:00 PM	53.1	204173.8	Ld=	56.5
11:00 PM	49.3	85113.8		
12:00 AM	48.6	72443.6		
1:00 AM	49.6	91201.1		
2:00 AM	45.2	33113.1		
3:00 AM	45.9	38904.5		
4:00 AM	50.3	107151.9		
5:00 AM	49.5	89125.1		
6:00 AM	51.0	125892.5	SUM=	847119
			Ld=	49.7
	Daytime Level=	68.3		
	Nighttime Level=	69.2		
	DNL=	**58**		
	24-Hour Leq=	55.0		