

# EDWARD L. PACK ASSOCIATES. INC.

1975 HAMILTON AVENUE SUITE 26 SAN JOSE, CA 95125

Acoustical Consultants

TEL: 408-371-1195 FAX: 408-371-1196 www.packassociates.com

August 15, 2018 Project No. 50-003-1

Mr. Ajit Singh Singhkahn, LLC 15251 Winton Way San Jose, CA 95124

Subject:

Noise Assessment Study for the Planned Single-Family Development,

18081 Saratoga - Los Gatos Road, Monte Sereno

Dear Mr. Singh:

This report presents the results of a noise assessment study for the planned single-family development at 18081 Saratoga - Los Gatos Road in Monte Sereno, as shown on the Preliminary Grading & Drainage Plan, Ref. (a). The noise exposures at the site were evaluated against criteria recommended by the Town of Monte Sereno, Ref. (b). The analysis of the on-site sound level measurements indicates that the existing noise environment at the site is due primarily to vehicular traffic sources on Saratoga - Los Gatos Road (Highway Route 9). The results of the study indicate that the noise exposures at the exterior living areas of the project will be within the limits of the criteria. The interior noise exposures will also be within the limits of the criteria. Noise reduction 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, general building shell controls and the on-site noise measurement data and calculation tables.

# I. Summary of Findings

The standards of the City of Monte Sereno General Plan Health and Safety Element, Ref. (c), utilize the Day-Night Level (DNL) noise descriptor. The Health and Safety Element of the General Plan references a noise exposure land use compatibility chart on Figure HS-5. However, Figure HS-5 is a noise contour map. The Health and Safety Element does not contain quantifiable standards for any type of land use. A conversation with the City of Monte Sereno Planning Department, Ref. (b), revealed that 60 dB DNL is the normally acceptable exterior limit for residential land-use. Exterior noise exposures at or below 60 dB DNL do not require analysis or noise mitigation measures.

For the purposes of this study, 60 dB DNL is used herein as the exterior noise exposure design goal for the exterior living areas of the project. An interior noise exposure limit of 45 dB DNL is also being applied to this project.

The noise exposures shown below include the noise attenuation provided by a 6 ft. high noise control barrier at the west side of Lot 1.

#### A. Exterior Noise Levels

- The existing exterior noise exposures at the most impacted planned side and rear yard of the home on Lot 1 (65 ft. from the centerline of Saratoga Los Gatos Road (Highway 9) is 60 dB DNL. Under future traffic conditions, the noise exposure is expected to remain at 60 dB DNL. Thus, the noise exposures will be within the City of Monte Sereno exterior noise criterion.
- The existing exterior noise exposures at the most impacted planned building setback of the home on Lot 1 (48 ft. from the centerline of Saratoga Los Gatos Road (Highway 9) is 69 dB DNL. Under future traffic conditions, the noise exposure is expected to remain at 69 dB DNL.

- The existing exterior noise exposures at the most impacted planned side and rear yard of the home on Lot 2 (161 ft. from the centerline of Saratoga Los Gatos Road (Highway 9) is 58 dB DNL. Under future traffic conditions, the noise exposure is expected to remain at 58 dB DNL. Thus, the noise exposures are within the 60 dB DNL limit of the City of Monte Sereno exterior noise criterion.
- The existing exterior noise exposures at the most impacted planned building setback of the home on Lot 2 (170 ft. from the centerline of Saratoga Los Gatos Road (Highway 9) is 60 dB DNL. Under future traffic conditions, the noise exposure is expected to remain at 60 dB DNL.
- The existing exterior noise exposures at the most impacted planned side and rear yard of the home on Lot 3 (220 ft. from the centerline of Saratoga Los Gatos Road (Highway 9) is 58 dB DNL. Under future traffic conditions, the noise exposure is expected to remain at 58 dB DNL. Thus, the noise exposure is within the 60 dB DNL limit of the City of Monte Sereno exterior noise criterion.
- The existing exterior noise exposures at the most impacted planned building setback of the home on Lot 3 (196 ft. from the centerline of Saratoga Los Gatos Road (Highway 9) is 59 dB DNL. Under future traffic conditions, the noise exposure is expected to remain at 59 dB DNL.

As shown above, the exterior noise exposures will be within the 60 dB DNL limit of the City of Monte Sereno noise criteria. Further noise reduction measures will not be required.

## B. <u>Interior Noise Exposures</u>

- The interior noise exposures in the most impacted living spaces of Lot 1 will be up to 44 dB DNL. Under future traffic conditions, the noise exposure is expected to remain at 44 dB DNL. Thus, the noise exposures will be within the limits of the interior noise exposure design criterion recommended for this project.
- The interior noise exposures in the most impacted living spaces of Lot 2 will be up to 35 dB DNL. Under future traffic conditions, the noise exposure is expected to remain at 35 dB DNL. Thus, the noise exposures will be within the limits of the interior noise exposure design criterion recommended for this project.
- The interior noise exposures in the most impacted living spaces of Lot 3 will be up to 34 dB DNL. Under future traffic conditions, the noise exposure is expected to remain at 34 dB DNL. Thus, the noise exposures will be within the limits of the interior noise exposure design criterion recommended for this project.

The interior noise exposures will be in compliance with the 45 dB DNL criterion recommended for this project. Noise mitigation for the interior living spaces will not be required.

# II. Site, Traffic and Project Descriptions

The planned development site is located at 18081 Saratoga - Los Gatos Road in Monte Sereno. The site is on the north side of the road and initially slopes up away from the road then down to the north. The site currently contains a remnant of a previous structure. Surrounding land uses include single-family homes adjacent to the west, north and east and across Saratoga - Los Gatos Road to the south.

The on-site noise environment is controlled primarily by vehicular traffic sources on Saratoga - Los Gatos Road, which carries an Average Daily Traffic (ADT) volume of 17,500 vehicles, as reported by CalTrans, Ref. (d).

The proposed project includes the subdivision of the site into three single-family lots and one common parcel (access road), and the construction of three single-family homes. A 6 ft. high noise control barrier is planned to extend from the westerly façade of the home on Lot 1 to the westerly property line, then continue along the Lot 1 property line to terminate at Lot 2. Ingress and egress to the site will be by way of a private access road off of Saratoga - Los Gatos Road. The Preliminary Grading & Drainage Plan is shown on Figure 1 on page 6.

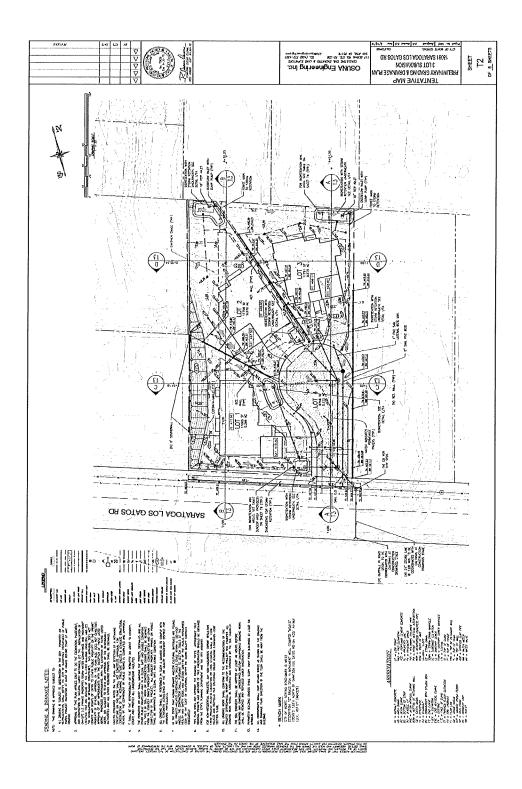


FIGURE 1 – Preliminary Grading & Drainage Plan

## 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 on February 1-2, 2018 at a location 46 ft. from the centerline of Saratoga - Los Gatos Road corresponding to the planned minimum setback of the home on Lot 1 from the highway. The on-site measurement locations are shown on Figure 2 on page 8. The sound levels were recorded and processed using a Larson-Davis Model 812 Precision Integrating Sound Level Meter. The meter yields, by direct readout, a series of descriptors of the sound levels versus time, as described in Appendix B, and the results are shown in the data table in Appendix C. The measured descriptors include the L<sub>1</sub>, L<sub>10</sub>, L<sub>50</sub>, and L<sub>90</sub>, i.e., those levels exceeded for 1%, 10%, 50%, and 90% of the time. Also measured were the maximum (L<sub>max</sub>) and minimum (L<sub>min</sub>) levels and the continuous equivalent-energy levels (L<sub>eq</sub>), which are used to calculate the DNL. The measurements were made for a continuous 24-hour period and included representative hours of the daytime and nighttime periods of the DNL index.

As shown in the Appendix C data table, the  $L_{eq}$ 's at the measurement location, 46 ft. from the centerline of Saratoga - Los Gatos Road, ranged from 63.1 to 69.0 dBA during the daytime and from 53.6 to 65.4 dBA at night.

Vehicular traffic noise dissipates at the rate of 3 to 6 dB for each doubling of distance from the source and contains a wide spectrum of frequency components (from 100 to 10,000 Hz), which are associated with engine, tire, drive-train, exhaust and other sources. These frequency components are centered primarily in the 250 and 500 Hz octave bands, and were used in determining the noise control measures recommended for this project.



FIGURE 2 – Noise Measurement Location

### B. Future Noise Levels

Future traffic volume data for Saratoga - Los Gatos Road were not available from CalTrans. Therefore, a review of historical data from CalTrans was performed. The 1996 Average Daily Traffic (ADT) volume for Saratoga - Los Gatos Road was 20,100 vehicles, Ref. (e). The 2016 (existing) traffic volume was 17,500 vehicles ADT. Thus, the traffic volumes have decreased slightly over the past 20 years. However, with the future construction of the Hacienda site, the future traffic volume is likely to increase slightly. The future traffic volume could increase up to 20,500 vehicles ADT before an increase in the daily noise exposure occurs. Therefore, we are estimating that the future traffic noise levels will remain similar to current levels.

### IV. Evaluations of the Noise Exposures

#### A. Exterior Noise Exposures

To evaluate the on-site noise exposures against the exterior noise criterion of the Town of Monte Sereno, DNL for the survey location was 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. A nighttime weighting factor of 10 dB was added to the measured noise levels to account for the increased human sensitivity to noise during these hours. Adjustments were made to the measured noise levels to account for various setback distances of receptor locations from the measurement locations using methods established by the Highway Research Board, Ref. (f). The formula used to calculate the DNL is described in Appendix B.

The noise exposure at the measurement location and at the most impacted planned building setback, 46 ft. from the centerline of Saratoga - Los Gatos Road, was calculated to be 69 dB DNL. Under future traffic conditions, the noise exposure is expected to remain at 69 dB DNL.

At the setback of the rear yard of Lot 1, 65 ft. from the centerline of Los Gatos – Saratoga Road, the noise exposure without the planned noise control barrier was calculated to be 67 dB DNL under existing and future traffic conditions. The planned 6 ft. high noise barrier will provide 7 dB of traffic noise reduction, which will result in noise exposures behind the barrier of 60 dB DNL or lower for compliance with the City of Monte Sereno noise criteria.

The noise exposure at the most planned building setback of the home on Lot 1, 48 ft. from the centerline, was calculated to be 69 dB DNL. Under future traffic conditions, the noise exposure is estimated to remain at 69 dB DNL.

The exterior noise exposure in the most impacted side and rear yard of Lot 2, 161 ft. from the centerline of the road, is 58 dB DNL. Under future traffic conditions, the noise exposure is estimated to remain at 58 dB DNL. Thus, the noise exposures will be within the 60 dB DNL criterion of the City of Monte Sereno.

The noise exposure at the most planned building setback of the home on Lot 2, 170 ft. from the centerline, was calculated to be 60 dB DNL. Under future traffic conditions, the noise exposure is estimated to remain at 60 dB DNL.

The exterior noise exposure in the most impacted side and rear yard of Lot 3, 220 ft. from the centerline of the road, is 58 dB DNL. Under future traffic conditions, the noise exposure is estimated to remain at 58 dB DNL. Thus, the noise exposures will be within the 60 dB DNL criterion of the City of Monte Sereno.

The noise exposure at the most planned building setback of the home on Lot 3, 196 ft. from the centerline, was calculated to be 59 dB DNL. Under future traffic conditions, the noise exposure is estimated to remain at 59 dB DNL.

As shown by the above evaluations, the exterior noise exposures in the rear yard of Lot 1 will be within the 60 dB DNL criterion of the City of Monte Sereno. Noise reduction measures will not be required.

### B. <u>Interior Noise Exposures</u>

To evaluate the interior noise exposures in project living spaces against the 45 dB DNL limit recommended for this project, 25 dB reduction was applied to the exterior noise exposure at the building setback to represent the attenuation provided by the building shell under a closed window condition. The closed window condition assumes that windows are standard dual-pane thermal insulating windows that are kept closed all of the time for noise control. The windows may be kept closed as the Mechanical Code requires full time supplementary ventilation for single-family housing.

The interior noise exposure in the most impacted living spaces of Lot 1 was calculated to be 44 dB DNL. Under future traffic conditions, the noise exposure is estimated to remain at 44 dB DNL. Thus, the interior noise exposures will be within the 45 dB DNL limit of the recommended interior noise design criterion.

The interior noise exposure in the most impacted living spaces of Lot 2 was calculated to be 35 dB DNL. Under future traffic conditions, the noise exposure is estimated to remain at 35 dB DNL. Thus, the interior noise exposures will be within the 45 dB DNL limit of the recommended interior noise design criterion.

The interior noise exposure in the most impacted living spaces of Lot 3 was calculated to be 34 dB DNL. Under future traffic conditions, the noise exposure is estimated to remain at 34 dB DNL. Thus, the interior noise exposures will be within the 45 dB DNL limit of the recommended interior noise design criterion.

As shown above evaluations the interior noise exposures will be within the limit of the 45 dB DNL criterion recommended for this project. Mitigation measures for the interior living spaces will not be required.

This report presents the results of a noise assessment study for the planned single-family subdivision at 18081 Saratoga - Los Gatos Road in Monte Sereno. The study findings for present conditions are based on field measurements and other data and are correct to the best of our knowledge. Future noise level predictions were based on information provided by CalTrans. 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.

Jeffy K Park

Jeffrey K. Pack President

Attachments: Appendices A, B, and C

### APPENDIX A

#### References:

- (a) Conceptual Grading and Drainage Plan, "3 Lot Subdivision 18081 Saratoga Los Gatos Road", by OSUNA Engineering, Inc., June 18, 2018
- (b) Information on the City of Monte Sereno Noise Standards Provided by Ms. Erin Ventura, City of Monte Sereno Planning Department by Telephone to Edward L. Pack Associates, Inc., December 5, 2012
- (c) The City of Monte Sereno General Plan 2009, Health and Safety Element, Chapter 9, "Noise", January 2009
- (d) State of California Department of Transportation, Division of Traffic Operation http://www.dot.ca.gov/trafficops/census/volumes2016/Route7-10.html.
- (e) <u>1996 Traffic Volumes on the California State Highway System,</u> State of California Department of Transportation, Division of Traffic Operations, June 1997
- (f) Highway Research Board, "Highway Noise-A Design Guide for Highway Engineers", Report 117, 1971

#### **APPENDIX B**

## Noise Standards, Terminology, Instrumentation and Building Shell Controls

### 1. Noise Standards

# A. <u>City of Monte Sereno General Plan Health and Safety Element Policies</u>

Goal HS-6: Reduce noise level within neighborhoods resulting from vehicular traffic and construction activity.

Policy HS-6.1 Reduce noise level in residential areas shall restricting truck traffic to designated routes and monitoring speed of local traffic.

Policy HS-6.2 Encourage the use of the latest noise control technology to minimize noise in residential neighborhoods.

Policy HS-6.3: Continue to enforce local and State noise regulations to minimize noise impacts associated with construction and public and private activities.

Policy HS-6.4 Encourage new development in noise impacted areas to provide effective noise insulation measures.

Policy HS-6.5 Cooperate with Santa Clara County, State and federal agencies, private businesses and individuals to control and maintain an acceptable noise environment in Monte Sereno.

Policy HS-6.6 Provide input on regional decisions which will affect noise levels in Monte Sereno.

# City of Monte Sereno General Plan Health and Safety Element Policies (cont'd)

Policy HS-6.7 Minimize potential transportation-related noise through street circulation design, coordination of routing and other traffic control measures, and consider the use of noise-absorbing "quiet" pavements when resurfacing roadways.

Action HS-6.1 Require construction techniques for noise buffering, barriers or setbacks in development subject to high noise levels, to reduce noise to a level with the noise/land use compatibility standards.

# 2. <u>Terminology</u>

#### 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 sound measuring instruments. Some of the statistical levels used to describe community noise are defined as follows:

- L<sub>1</sub> 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<sub>50</sub> The noise level exceeded 50% of the time representing an "average" sound level.
- L<sub>90</sub> 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 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 the descriptor 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<sub>eq</sub> in accordance with the following mathematical formula:

DNL = 
$$\left[ \left[ (10\log_{10}(10^{\sum \text{Leq(7-10)}})) \times 15 \right] + \left[ \left( (10\log_{10}(10^{\sum \text{Leq(10-7)}}) + 10 \right) \times 9 \right] \right] / 24$$

### 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 of the instruments specified below, which provides a direct readout of the L exceedance statistical levels including the equivalent-energy level ( $L_{eq}$ ). Input to the instrument was provided by a microphone extended to a height of 5 ft. above the ground on using a tripod or mast. The "A" weighting network and the "Fast" response setting of the instruments were used in conformance with the applicable standards. The instruments conform to American National Standards Institute (ANSI) standard S1.4 for Type I instruments, and all instrumentation was acoustically calibrated before and after field tests to assure accuracy.

Instruments used for field surveys:
Larson-Davis Model 812 Integrating Sound Level Meter
Larson-Davis 2900 Real Time Analyzer
Bruel & Kjaer Model 2231 Precision Sound Level Meter
Larson Davis 831 Precision Integrating Sound Level Meter

# 4. **Building Shell Controls**

The following additional precautionary measures are required to assure the greatest potential for exterior-to-interior noise attenuation by the recommended mitigation measures. These measures apply at those units where closed windows are required:

- Unshielded entry doors having a direct or side orientation toward the primary noise source must be 1-5/8" or 1-3/4" thick, insulated metal or solid-core wood construction with effective weather seals around the full perimeter.
- If any penetrations in the building shell are required for vents, piping, conduit, etc., sound leakage around these penetrations can be controlled by sealing all cracks and clearance spaces with a non-hardening caulking compound.
- Ventilation openings shall not compromise the acoustical integrity of the building shell.

# APPENDIX C

On-Site Noise Measurement Data and Calculation Tables

# **DNL CALCULATIONS**

CLIENT:

SINGHKAHN

FILE:

50-003

PROJECT:

3-LOT SUBDIVISION

DATE:

2/1-2/2018

SOURCE:

HIGHWAY 9

| LOCATION 1      | Highway 9        |                |          |
|-----------------|------------------|----------------|----------|
| Dist. To Source | 46 ft.           |                |          |
|                 |                  |                |          |
| TIME            | Leq              | 10^Leq/10      |          |
| 7:00 AM         | 69.0             | 7943282.3      |          |
| 8:00 AM         | 68.9             | 7762471.2      |          |
| 9:00 AM         | 68.5             | 7079457.8      |          |
| 10:00 AM        | 67.3             | 5370318.0      |          |
| 11:00 AM        | 67.2             | 5248074.6      |          |
| 12:00 PM        | 67.3             | 5370318.0      |          |
| 1:00 PM         | 67.1             | 5128613.8      |          |
| 2:00 PM         | 67.4             | 5495408.7      |          |
| 3:00 PM         | 67.1             | 5128613.8      |          |
| 4:00 PM         | 65.0             | 3162277.7      |          |
| 5:00 PM         | 65.6             | 3630780.5      |          |
| 6:00 PM         | 66.1             | 4073802.8      |          |
| 7:00 PM         | 65.8             | 3801894.0      |          |
| 8:00 PM         | 64.2             | 2630268.0      |          |
| 9:00 PM         | 63.1             | 2041737.9 SUM= | 73867319 |
| 10:00 PM        | 61.1             | 1288249.6 Ld=  | 78.7     |
| 11:00 PM        | 57.6             | 575439.9       |          |
| 12:00 AM        | 54.4             | 275422.9       |          |
| 1:00 AM         | 63.5             | 2238721.1      |          |
| 2:00 AM         | 62.1             | 1621810.1      |          |
| 3:00 AM         | 56.1             | 407380.3       |          |
| 4:00 AM         | 53.6             | 229086.8       |          |
| 5:00 AM         | 59.6             | 912010.8       |          |
| 6:00 AM         | 65.4             | 3467368.5 SUM= | 11015490 |
|                 |                  | Ln=            | 70.4     |
|                 |                  |                |          |
|                 | Daytime Level=   | 78.7           | 1        |
|                 | Nighttime Level= | 80.4           |          |
|                 | DNL=             | 69             |          |
|                 | 24-Hour Leq=     | 65.5           |          |

**AJIT SINGH** 

FILE: 50-003.DTA DATE: 2/1-2/2018

PROJECT: 3-LOT SUBDIVISION, MONTE SERENO

LOCATION: 46 ft. from Highway 9 C<sub>L</sub>

INTV 1 01Feb2018 11:00:00 Duration 1:00:00 Leg 67.2 SEL 100.9 Min 45.9 Max 83.3 Peak 100.5 UWPk 102.2dB

Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 74.5 L10 70.4 L50 65.9 L90 55.1dBA

INTV 2 01Feb2018 12:00:00 Duration 1:00:00 Leq 67.3 SEL 102.9 Min 41.4 Max 86.0 Peak 96.8 UWPk 101.8dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0

L 1 73.8 L10 70.6 L50 66.2 L90 54.5dBA

INTV 3 01Feb2018 13:00:00 Duration 1:00:00 Leq 67.1 SEL 102.6 Min 40.3 Max 83.6 Peak 96.5 UWPk 103.8dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 74.4 L10 70.4 L50 65.7 L90 53.3dBA

INTV 4 01Feb2018 14:00:00 Duration 1:00:00 Leq 67.4 SEL 103.0 Min 43.5 Max 84.3 Peak 95.8 UWPk 102.9dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 74.3 L10 70.5 L50 66.4 L90 57.2dBA

INTV 5 01Feb2018 15:00:00 Duration 1:00:00 Leq 67.1 SEL 102.7 Min 46.1 Max 83.0 Peak 93.6 UWPk 99.2dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 73.7 L10 70.2 L50 66.1 L90 58.6dBA

INTV 6 01Feb2018 16:00:00 Duration 1:00:00 Leq 65.0 SEL 100.5 Min 47.5 Max 78.9 Peak 90.5 UWPk 99.7dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 71.9 L10 68.7 L50 62.8 L90 57.3dBA

INTV 7 01Feb2018 17:00:00 Duration 1:00:00 Leq 65.6 SEL 101.2 Min 49.7 Max 91.5 Peak 104.4 UWPk 108.7dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 72.4 L10 68.5 L50 62.4 L90 56.5dBA

INTV 8 01Feb2018 18:00:00 Duration 1:00:00 Leq 66.1 SEL 101.7 Min 46.9 Max 79.9 Peak 98.9 UWPk 103.8dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 72.5 L10 69.4 L50 65.1 L90 57.9dBA INTV 9 01Feb2018 19:00:00 Duration 1:00:00 Leq 65.8 SEL 101.4 Min 46.2 Max 79.0 Peak 90.5 UWPk 96.9dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 72.7 L10 69.6 L50 64.4 L90 52.8dBA

INTV 10 01Feb2018 20:00:00 Duration 1:00:00 Leq 64.2 SEL 99.8 Min 43.0 Max 77.2 Peak 89.9 UWPk 99.7dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 71.9 L10 68.9 L50 59.2 L90 49.2dBA

INTV 11 01Feb2018 21:00:00 Duration 1:00:00 Leq 63.1 SEL 98.7 Min 41.1 Max 76.6 Peak 88.6 UWPk 93.7dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 71.9 L10 68.1 L50 56.0 L90 47.1dBA

INTV 12 01Feb2018 22:00:00 Duration 1:00:00 Leq 61.1 SEL 96.7 Min 37.3 Max 76.6 Peak 88.9 UWPk 100.6dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 71.5 L10 66.7 L50 50.6 L90 42.4dBA

INTV 13 01Feb2018 23:00:00 Duration 1:00:00 Leq 57.6 SEL 93.2 Min 34.9 Max 81.3 Peak 93.3 UWPk 98.1dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 70.0 L10 60.1 L50 43.9 L90 37.8dBA

INTV 14 02Feb2018 00:00:00 Duration 1:00:00 Leq 54.4 SEL 90.0 Min 30.8 Max 74.4 Peak 85.9 UWPk 93.7dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 68.8 L10 52.7 L50 39.3 L90 34.4dBA

INTV 15 02Feb2018 01:00:00 Duration 1:00:00 Leq 53.5 SEL 89.0 Min 29.9 Max 85.0 Peak 97.5 UWPk 105.5dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 66.6 L10 45.3 L50 34.4 L90 32.1dBA

INTV 16 02Feb2018 02:00:00 Duration 1:00:00 Leq 52.1 SEL 87.6 Min 30.5 Max 78.1 Peak 91.5 UWPk 95.4dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 66.8 L10 45.4 L50 34.0 L90 32.0dBA

INTV 17 02Feb2018 03:00:00 Duration 1:00:00 Leq 56.1 SEL 91.7 Min 30.5 Max 88.5 Peak 99.3 UWPk 103.5dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 65.4 L10 44.0 L50 34.9 L90 32.4dBA

INTV 18 02Feb2018 04:00:00 Duration 1:00:00 Leq 53.6 SEL 89.1 Min 32.6 Max 80.5 Peak 95.0 UWPk 100.6dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 67.6 L10 46.8 L50 36.8 L90 34.5dBA INTV 19 02Feb2018 05:00:00 Duration 1:00:00 Leq 59.6 SEL 95.2 Min 37.0 Max 85.6 Peak 99.4 UWPk 105.7dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 71.4 L10 62.5 L50 45.8 L90 39.3dBA

INTV 20 02Feb2018 06:00:00 Duration 1:00:00 Leq 65.4 SEL 101.0 Min 37.9 Max 82.0 Peak 94.4 UWPk 103.2dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 74.4 L10 70.0 L50 58.1 L90 46.2dBA

INTV 21 02Feb2018 07:00:00 Duration 1:00:00 Leq 69.0 SEL 104.6 Min 48.2 Max 86.1 Peak 99.4 UWPk 103.2dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 76.1 L10 71.8 L50 68.1 L90 59.5dBA

INTV 22 02Feb2018 08:00:00 Duration 1:00:00 Leq 68.9 SEL 104.4 Min 48.6 Max 88.5 Peak 97.6 UWPk 102.5dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 75.1 L10 71.5 L50 67.9 L90 60.5dBA

INTV 23 02Feb2018 09:00:00 Duration 1:00:00 Leq 68.5 SEL 104.1 Min 45.3 Max 93.6 Peak 107.0 UWPk 108.0dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 75.5 L10 71.3 L50 67.0 L90 55.7dBA

INTV 24 02Feb2018 10:00:00 Duration 1:00:00 Leq 67.3 SEL 102.9 Min 42.1 Max 85.0 Peak 96.5 UWPk 105.3dB Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0 L 1 74.5 L10 70.6 L50 65.9 L90 53.7dB