



**Dun Laoghaire/ Rathdown
County Council**

Marlay Park Concert 2015

From

03.07.15 - 04.07.15

Title: Noise Measurements taken at Noise Sensitive locations surrounding Marlay Park while the Concerts are being held at the park.

Reading Taken: At the noise sensitive locations (NSL's) within the vicinity of Marlay Park.

Equipment Used: Hand Held Analyser, Bruel & Kjaer 2250 Light, Sound Level Meter.

Prepared By: Noise Unit, DLRCC

Summary

The Noise Unit at Dun-laoghaire / Rathdown Co. Council has been requested to perform a noise assessment investigation for the Concerts being held at Marlay Park 2015.

This report details the equipment and measurement methods employed and presents an acoustic analysis of all data collected.

Objectives

The technical assessments were carried out:

- 1.** To determine the ambient noise environment and background noise levels at the noise sensitive location(s) (NSL's) where monitoring has been carried out.
 - 2.** To relate the music noise level from the Marlay Park Concerts to the noise conditions set down in the planning application and show a reasonable cause for annoyance or otherwise.
 - 3.** To assess if the complaints logged by local residents are justified.
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Introduction

Marlay Park is located in Dun-loaghaire / Rathdown Co. Council and has been used for two concerts on a single open air stage on Friday, 03rd July and Saturday, 04th July.

The condition relating to the event states that “ *The music noise level should not exceed 72dB (A)LAeq, over a fifteen-minute period, at one meter from the facade of any noise sensitive premises for events being held*”.

Description of the Noise Source

There is a stone wall approximately 1.5 ~ 2 meters high running along the park boundary between the nearest noise receptor location and the noise source. There are some tall trees and wooded areas within the park.

The primary noise nuisance is emitting from the live and recorded music featured on a single stage, with live music between approximately 15:00 and 23:00.

Description of the Noise Receiver

The closest noise sensitive area is situated on the Grange Road to the north and east of the park. Residents living in the area include young and old families.

Equipment and Measurement Set Up

The recorder used during the noise assessment was with a Hand Held Analyser, Bruel & Kjaer 2250 Light, Sound Level Meter.

Noise Equipment Specifications

Type: Class 1, 2250 Light, Hand-Held Analyser, Sound Level Meter (SLM)

Type: 4231 Class 1 Acoustic Calibrator

Manufacturer: Bruel & Kjaer

Weighted Setting: A-Weighting

Meter Response Time: Fast

Serial Number: 2638896

Measurement Set -Up

The sound level meter was calibrated before site visit and recordings were carried out.

Location: Outdoors in the noise sensitive location.

Orientation: Pointed towards the noise source.

Acoustic Consideration

Meteorological Conditions

Meteorological conditions can have a substantial influence on the propagation of sound and may provide important information for assessing noise compliance and a noise complaint. Wind speed and wind direction have the potential to affect the noise measurements. An average wind speed of less than 5 m/s is the preferred limit when noise measurements are being taken.

The prevailing weather conditions at the time of measurement has been noted and recorded in the report. These occurrences may influence the final noise reading.

External Influences and limitations

Precautions were put into place to minimise outside interference. These include covering microphone with a wind shield to minimise outside interference and pausing the SLM if deemed necessary.

The Grange Road runs to the north and east of the Park. This appears to be a busy road to the north of the park with fewer vehicles using the eastern part of the road.

The M50 motorway runs approximately east to west to the south of the Park.

Road traffic noise and crowd noise were noted during the course of each monitoring session. These occurrences may influence the final noise reading.

Methodology

Noise levels were measured by a competent person(s) for environmental noise monitoring, in accordance with EPA Environmental Noise Guidance Document and International Standard ISO 1996: Acoustics Description and Measurement of Environmental Noise.

Monitoring Position & Measurement Set Up:

Parameters Used on the SLM: Ambient Noise Levels, $L_{Aeq, t}$ and Background Noise, L90

Location of Sound level Meter: Free-Field

The recorder was placed at least 3.5m from any wall or large reflecting surface.

SLM: 1.2 -1.5meters in height.

Windshield Used: Yes

Orientation: Pointing the microphone at the noise source.

Date: 03.07.15

Act on Stage: Clean Bandit (Time 18.30 -19.15)

Noise Sensitive Location: Grange Wood

Calibration Deviation: +.01

Sound Level Meter Reference No: 150703 004

Start Time - 18.59

Finish Time- 19.14

L_{Aeq}, 15mins - 65.1 dB

L₉₀, 15mins – 59.7dB

Act on Stage: Rudimental (Time 19.45 -20.45)

Noise Sensitive Location: Pine Valley Avenue

Calibration Deviation: +.04

Sound Level Meter Reference No: 150703 005

Start Time - 19.55

Finish Time- 20.10

L_{Aeq}, 15mins - 61.5 dB

L₉₀, 15mins – 53.2dB

Noise Sensitive Location: Heather Drive

Calibration Deviation: +.07

Sound Level Meter Reference No: 150703 006

Start Time - 20.16

Finish Time- 20.32

L_{Aeq}, 15mins - 60.6 dB

L₉₀, 15mins – 55.9dB

Noise Sensitive Location: Grange Wood

Calibration Deviation: -.04

Sound Level Meter Reference No: 150703 007

Start Time - 20.37

Finish Time- 20.42

L_{Aeq}, 05mins - 63.7 dB

L₉₀, 05mins – 55.4dB

Act on Stage: Avicii (Time 21.15 -22.45)

Noise Sensitive Location: Marlay Lawn

Calibration Deviation: +.01

Sound Level Meter Reference No: 150703 008

Start Time - 21.18

Finish Time- 21.23

L_{Aeq}, 05mins - 48.3 dB

L₉₀, 05mins – 45.0dB

Noise Sensitive Location: Pine Valley Avenue

Calibration Deviation: +.03

Sound Level Meter Reference No: 150703 009

Start Time - 21.31

Finish Time- 21.47

L_{Aeq}, 15mins - 60.5 dB

L₉₀, 15mins – 52.7dB

Noise Sensitive Location: Grange Wood

Calibration Deviation: – 0.00

Sound Level Meter Reference No: 150703 00 12

Start Time – 22:32

Finish Time- 22.45

L_{Aeq}, 15mins – 64.6 dB

L₉₀, 15mins – 57.4 dB

Meteorological Conditions:

Wind direction mainly from the east.

Approximate Wind speed: below 1 m/s

Cloudy and Dry

Approximate Temperature: 17-19 °C

Date: 04.07.15

Act on Stage: Imelda May (Time 19.45 -20.45)

Noise Sensitive Location: Pine Valley Avenue

Calibration Deviation: -0.03

Sound Level Meter Reference No: 150704 002

Start Time - 20.23

Finish Time- 20.38

L_{Aeq}, 15mins - 68.0 dB

L₉₀, 15mins – 62.8 dB

Noise Sensitive Location: Grange Wood

Calibration Deviation: +0.05

Sound Level Meter Reference No: 150704 003

Start Time - 20.41

Finish Time- 20.52

L_{Aeq}, 10mins - 68.0 dB

L₉₀, 10 mins – 60.3 dB

Act on Stage: Paolo Nutini (Time 21.15 – 22.45)

Noise Sensitive Location: Marley Lawn /Avenue

Calibration Deviation: +0.00

Sound Level Meter Reference No: 150704 004

Start Time - 21.28

Finish Time- 21.33

L_{Aeq}, 05mins - 56.5 dB

L₉₀, 05mins – 58.7 dB

Noise Sensitive Location: Heather Drive

Calibration Deviation: +0.00

Sound Level Meter Reference No: 150704 006

Start Time - 21.44

Finish Time- 21.59

L_{Aeq}, 15 mins - 63.8 dB

L₉₀, 15 mins – 67.5 dB

Noise Sensitive Location: Pinevalley Avenue

Calibration Deviation: -0.02

Sound Level Meter Reference No: 150704 007

Start Time - 22.03

Finish Time- 22.18

L_{Aeq}, 15 mins - 63.3 dB

L₉₀, 15 mins – 56.9 dB

Noise Sensitive Location: Grange Wood

Calibration Deviation: -0.05

Sound Level Meter Reference No: 150704 008

Start Time - 22.22

Finish Time- 22.37

L_{Aeq}, 15 mins - 69.9 dB

L₉₀, 15 mins – 73.6 dB

Meteorological Conditions:

Wind direction mainly south westerly winds

Approximate Wind speed: below 2 m/ s

Scattered Clouds and Dry

Approximate Temperature: 20°C

Discussion of Acoustic Analysis

Noise monitoring was carried out by the Noise Unit to determine compliance with the following licensed condition;

“The music noise level should not exceed 72dB (A) LAeq, over a fifteen-minute period, at one meter from the facade of any noise sensitive premises for events being held”.

There was no exceedance of 72dB (A) LAeq, over a fifteen-minute period for any of the thirteen monitoring sessions carried out.

Conclusion of Acoustic Analysis

Having given careful consideration to the monitoring readings, the Noise Unit for Dun-Laoghaire/ Rathdown Co. Council have concluded that the noise emitted from the Concert complied with the conditions set down in the planning application.
