Project Methodology rev.1

Quotation Ref: 0903171NR - Qte

Discovery Summary:

A car repair workshop is proposed at 29 Cambert Lane, Manchester, M18 8HA.

Reason for assessment:

A previous assessment conducted has been rejected due to the requirement of doors being closed to maintain sound insulation. The client has also revised their chosen equipment to with view of reducing noise emissions. The site is to be reassessed to consider the following:

- Main access doors are opened.
- A compressor is not to be used and a battery-operated wheel gun is to be used in place of an air operated wheel gun.
- The revised location of the site is to be considered.

The revised location shows the openable access doors facing away from the NSR location. Due to the more complex geometry of the site, it would be useful to model the site within industry standard software (SoundPlan) to help determine the directivity provided by the location of the opened doors.

Planning Conditions / Criteria: (the target or desired outcome of the assessment):

For the accumulative sound rating level to be below current, representative background noise levels at the NSR location.

Selected Assessment Standard(s) & Justification:

'BS4142:2014 – Methods for rating and assessing industrial and commercial sound' is a recognised standard for assessing the noise impact of fixed plant machinery via relation of noise emissions to current background noise levels.

The project shall:

- Measure internal noise levels within an existing site operated by the client whereby similar activities are undertaken as proposed at the applicant site.
- An acoustic model of the site will be produced in SoundPlan and will include the internal noise source, sound insulation values of the proposed car repair workshop, NSR locations and noise barriers.
- The results of the modelling will be used to determine the Sound Rating Level.
- Assessment will be provided in accordance with BS4142:2014.

Method:

1. Measure internal noise levels within an existing site operated by the client whereby similar activities are undertaken as proposed at the applicant site. Internal noise levels will be measured over a 1-hour period and will be representative of the site operating at maximum capacity. The proposed battery operated wheel gun will be used as part of the operational scenario.

2. An acoustic model of the site will be developed within SoundPlan and will be used to determine the specific sound level at two corresponding NSR locations. All variables used within the model will be listed within the report.
3. Assessment will be provided in accordance with BS4142:2014.
4. A report will be produced demonstrating the acoustic model, grid noise map and subsequent calculated noise impact in accordance with BS4142:2014.
5. If required, mitigation will be specified and may include, but is not limited to the use of acoustic fencing and the sound insulation enhancement of the proposed car repair building.

Prerequisites:

The client must arrange a suitable time whereby internal noise measurements of their current car repair garage workplace can be obtained. During the agreed 1-hour measurement period, the site must operate at ***maximum*** capacity to represent the worst-case scenario noise levels.

Site Location and NSR Locations:



NSR_1 NSR_2 Site Location

Please check the above information is satisfactory prior to accepting the methodology and quotation. Any additional works required that are not stated within the above methodology may be charged additionally. Peak Acoustics Ltd provide methodologies based on the information made available to us at the time, and cannot be held responsible in the event that a subsequently issued assessment report, or other document related to this project, are required to contain information which is not included within this methodology document.