

Best Practice at Farringdon – Broadband Alarms

The introduction of broadband warning systems to facilitate safety awareness on site.

Overview

Excessive noise on site not only represents a major hazard to workers but can annoy neighbours and in some cases disturb wildlife.

The number of safety incidents during reversing manoeuvres has become a significant problem within the construction Industry. Reversing can be dangerous in a workplace particularly when vehicles and pedestrians are both using a restricted space. Nearly a quarter of all deaths involving vehicles at work occur during reversing. Many other reversing accidents do not result in injury but cause costly damage to vehicles, equipment and premises. (HSE, 2009)

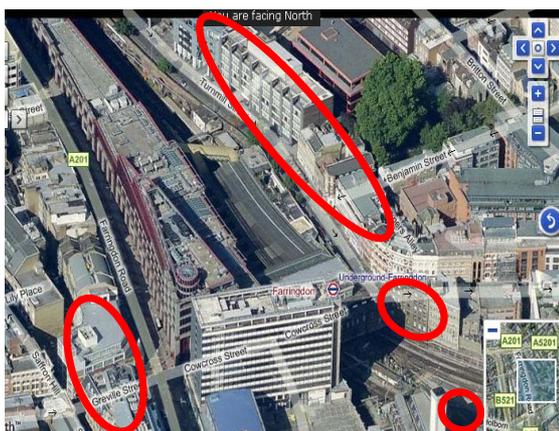
The introduction of vehicle reversing alarms has been a major contribution to reduce this number and have been widely fitted to a range of vehicle types.

Innovation

Broadband alarms are extremely useful during the hours of darkness due to the nature of the sound emitted. The “directional sound” reversing alarm is localised only in the danger area behind the vehicle and is perceived as quieter and less disturbing. The noise from the unit has a wide spectrum of frequencies hence the term ‘broadband noise’.

The system reduces or masks surrounding noise levels to ensure that the sound being emitted is heard more clearly. This also makes the sound very directional. From the side or in front of the vehicle the noise level is very low, but directly behind the unit the noise is loud enough to act as warning to anyone in that area.

The need to ensure high levels of safety whilst reversing is a key component to reducing accidents here at Farringdon. Due to the location of the site there are a variety of sensitive receptors in the area as can be seen from the image below.



Noise is a major issue on site. During the project, 70% of all complaints have been noise related. Reversing lorries and plant and machinery are a major contribution to such complaints. In compliance with our Section 61 as a best practicable means, broadband reversing alarms are now installed on all cranes on site. In addition, an agreement has been made with Ainscough who supply all extra cranes to site. Ainscough have fitted broadband alarms on their entire London fleet to reduce noise disturbance to local residents.



Benefits

- More directional than conventional high pitch alarms providing greater awareness of reversing vehicles.
- With the reduction in high pitched frequencies these alarms can be used during night time operations.
- Reduces the risk of reversing incidents.
- Reduces the incidence of noise nuisances to surrounding areas.
- Allows for compliance with our section 61 demonstrating best practicable means.
- Cost effective.



Targets and Objectives

The introduction of white noise alarm systems on the Farringdon project has helped us meet our targets and objectives in the following areas:

- CEEQUAL – Nuisance to neighbours, relations with local community and stakeholders
- Farringdon SDC strategy; relations with the local community, effects on neighbours, governance and project management.
- Farringdon Targets and Objectives – No enforcement action for statutory nuisance or other legal non-compliance