



London Bridge Best Practice



Case Study Title: Best practice in Noise Management

Month/Year: January 2017

Key Benefits

- ✓ Agreement from Southwark Council for 24/7 working
- ✓ A 'noise aware' site team
- ✓ Reduced noise impact to local community
- ✓ Improved community relations
- ✓ Credibility with local authority
- ✓ Industry recognition of achievements

Objectives and Targets

- ✓ Using best practice in accordance with British Standard 5228-1:2009 - Code of practice for noise and vibration control on construction and open sites.
- ✓ CEEQUAL – nuisance to neighbours
- ✓ Section 61 compliance
- ✓ Compliance to TLP Policy

Overview

During the late summer of 2016 the London Bridge Station Redevelopment Scheme had reached a stage in its programme where major works, including a substantial amount of demolition, was due to be carried out directly adjacent to neighbouring residents. The works involved taking possession of Platforms 1, 2 and 3, demolishing the station arches, old platforms and canopies and removing the running rails and ballast, then rebuilding the new concourse bridge structures platform structures and track. Due to the requirement to keep the station open throughout the works and the nature of a live railway site, a certain amount of 24/7 working was required.

The project has a comprehensive Noise and Vibration Control Plan and as matter of course implements Best Practicable Means (BPM) as defined under section 72 of the Control of Pollution Act to keep noise to a minimum to sensitive local receptors. However, given the extremely close proximity of the works to sensitive receptors (< 10 metres at their nearest), the programme and cost constraints of shutting an operational railway line and part of a station for 7 months there was a serious concern that 'business as usual' could result in significant legal, financial and reputational costs to the project.



Photos showing location of residents in relation to the construction works.

A different approach to noise management was therefore required including a sustained, smart and enhanced employment of BPM to ensure project success.



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LONDON BRIDGE STATION
REDEVELOPMENT PROJECT

Summary of Key Best Practicable Means

- Temporary rehousing and noise insulation** – Two temporary rehousing periods have been implemented for defined stages of the project where excessive noise would be experienced such as a period of demolition and the installation of the platforms and canopies on platforms 1 to 3. A noise insulation package consisting of secondary glazing and ventilation was also offered and installed into qualifying residential properties.
- Implementation of Best Practical Means** – Measures implemented included:
 - ✓ Temporary erection of substantial 4-5m high acoustic barriers at strategic locations on the site.
 - ✓ Widespread use of prefabricated materials aiding the reduction of in-situ noisy working.
 - ✓ Tackling noise at source first and foremost using quieter plant and techniques and being prepared to learn and adapt when required.
 - ✓ Use of acoustic enclosures for specific activities.
- Employment of a night shift Noise and Nuisance Advisor** – This role was responsible for ensuring s.61 compliance, attended, on and off site noise monitoring and the implementation of Best Practicable Means (BPM) on nights to minimise any potential disruption to residents. Residents were also provided a direct number to the Noise and Nuisance Advisor and so complaints could be dealt with immediately. The role also provided assurance of noise predictions and reassurance to Southwark Council.
- Noise Monitoring** – A network of five real time noise monitors around the site and three vibration monitors. Attended monitoring also undertaken by the Noise and Nuisance Advisor.
- Detailed planning of the works** – All works were extensively planned with particular focus on mitigation of noisy activities. Targeted night time restrictions placed on particular noisy activities near residents whilst allowing 24 hour working for other activities. Any task undertaken on night opposite the residents had to have genuine justification.
- Engagement** - Extensive and sustained stakeholder engagement both internally (site management, engineers and operatives) and externally (local residents, businesses and local authority). Monthly residents meetings held and individual visits undertaken by Environment team to ensure residents' concerns were taken into consideration.
- Change in culture** - Development of a 'noise aware' culture on site. Regular noise specific briefings to site management and operatives.



Conclusion

With the comprehensive employment of Best Practicable Means (BPM) the project has been able to continue to work 24/7 365 days of the year without significant noise impacts to the surrounding community.

In recognition of the extensive efforts that the project went to mitigate the impacts of noise, it achieved success in winning the Noise Abatement Society's 'John Connell Award' (The Noise Oscar) for implementing a significant range of initiatives to reduce noise nuisance from its site operations for the benefit of the community and environment

The approaches adopted on the project exemplify the dedicated application of BPM and include both the tangible measures of employing noise modelling, monitoring and mitigation measures, combined with innovative construction techniques but also the intangible successes of having the right attitudes and culture encouraged amongst by the site team as well as positive engagement with all stakeholders.

