

The role of demolition contractors in building works

Keeping it under wraps



Most of us pass a construction site every day, oblivious to what is happening behind the hoardings. Paul Clarke-Scholes describes the measures that are taken to keep it that way.

If you work in Central London the chances are your office is near a building site or you regularly pass one on your travels. I wonder if you realise that the site is there or what is taking place on the other side of the protective sheeting? I doubt it, as a lot of work is put into minimising the impact which demolition activities have on the immediate environment.

Demolition contractors are responsible for probably the most violent and invasive phase of the construction cycle, and hence the most difficult to conceal. Inner city projects are particularly complex as lack of space and proximity of live buildings and pedestrians precludes the use of the most destructive demolition techniques i.e. using explosives or long-reach excavators. Instead, the work is better described as deconstruction as it often involves progressive, internal part-dismantling using both machines and hand-held hydraulic equipment, which is very labour intensive.

Noise and vibration

Even then demolition contractors are obliged to reduce the noise, vibration and other emissions still further to minimise disruption to the local community. They employ low impact demolition techniques that use non-percussive plant and equipment such as 'munchers', 'pulverisers' and 'crackers'. When severing or removing large concrete structures such as basement slabs and when separating retained structures, specialist techniques are applied such as diamond drilling or saw cutting. These may not sound very subtle but they emit less dust, noise and vibration than more traditional demolition methods.

Measurements are taken using noise meters throughout the duration of the project at the workface and site perimeter to ensure compliance with set limits of

noise exposure to the workforce and the surrounding community (80 and 75 decibels respectively). Vibration monitoring is also carried out to verify adjacent structures are not exposed to anything higher than 25 mm/sec².

Dust

Physically the site will be enclosed using tough plastic monarflex sheeting which will prevent debris from escaping. However, it is not air-tight and there is therefore a need to apply water spray to the workface to reduce the amount of dust generated. State-of-the-art equipment which discharges atomised water particles creates a fine mist that suppresses the emission of airborne material. Air monitoring is carried out regularly to measure total dusts and PM10 (particles measuring 10µm or less) levels within and outside the site.

Utilities

The establishment of the site will often require existing utility supplies to be disconnected to allow safe demolition to take place. Power and water systems typically supply a number of adjacent buildings so we are required to set-up diversions to maintain services throughout the project.

Traffic

Another key consideration is the management of the additional traffic that is generated by a construction site. This requires liaison with the Highways Department of the Local Authority at the planning stage to arrange any road closures or diversions necessary to allow cranes and heavy plant to be transported to the site. A large project will typically require a dedicated Banksman who is responsible for controlling all site transportation and ensures vehicle movements are coordinated to reduce exhaust, noise pollution, and maximise energy efficiency and integrated as smoothly as possible into the local traffic system. Where possible, vehicle movements will be restricted to non-peak periods to avoid contributing to London's substantial congestion problem.

Housekeeping

There is also a raft of other minor measures which are included in operatives' induction training to help make their activities as unobtrusive as possible. These include: placing soft materials in the bottom of skips to reduce the sound of loading debris and waste; fitting movement sensors and timers to minimise external lighting; regular cleaning of the site perimeter; progress meetings with the neighbouring community; and use of complaint logs and site contact notice boards.

Code of practice

There are many more measures which have been documented by the Considerate Constructors Scheme in its voluntary Code of Considerate Practice. The Scheme was set up by the industry in 1997 to improve its image, and since then over 30,000 sites have registered. All registered sites display a Scheme poster, setting out the Code to which the contractors are committed and giving contact details of the Scheme and the site manager, for any member of the public who wishes to pass on any concerns, complaints or compliments.

"By signing up to the Considerate Constructors Scheme, sites are committed



to our Code of Practice, designed to reduce the negative impact that construction activity can sometimes have," says the Scheme's General Manager, Edward Hardy. "If all sites presented an image of competent management, efficiency, awareness of local environmental issues and above all neighbourliness, then each one of them would become a positive advert for the whole industry."

Paul Clarke-Scholes is Health Safety Quality Environment manager of demolition contractor Clifford Devlin.

www.clifford-devlin.co.uk



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