

**WEDGE HOUSE**  
**SOUTHWARK, LONDON**  
 HOXTON / KIER CONSTRUCTION LONDON

## BIG Biodiversity Challenge Award Category: Temporary

### Project overview

Wedge House is situated in Southwark on the main Blackfriars Road, next door to an old Church. We have installed an active breathing wall on our external hoarding. This wall purifies 1 million litres of polluted air per day by using bio remediation as well as enhance the local biodiversity.

### What were the biodiversity conditions on site, prior to the enhancement?

Wedge House is in a built-up area in central London, so there was little biodiversity of note. The neighbouring church has a small green space, but this comprises of mainly grass, some small shrubs and some trees, so there wasn't much of a significant ecological value.

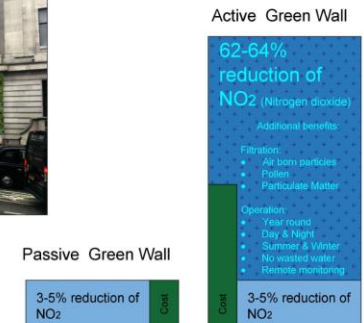
### What were the reasons behind this project ?

Being in a busy part of London and the current issues faced with pollution this project fitted both local area (TFL) pollution mitigation measures and Kier environmental standards. We were able to enhance the local biodiversity by selecting appropriate plants based on Southwark Council's environment report and improve air quality in the surrounding Church court yard next to the busy Blackfriars Road. By installing the green wall we are hoping to show that the construction industry can help biodiversity rather than hinder it. This will be a long term solution as we will be passing this green wall installation to other sites when Wedge House is completed.



Above: Hoarding prior to install  
 Below : Comparison of systems

Passive and Active walls comparison



Aerogation™ Active living wall systems biofiltrate up to 100 times more than passive walls

### What were the biodiversity measures taken?

The installation of the green wall was not included in any planning conditions, but we wanted to do something innovative to help enhance the biodiversity in the area. As well as bioremediating air quality, we wanted to make sure that the green wall would also benefit biodiversity as much as possible. We worked with the supplier to review the local biodiversity action plan and existing biodiversity in the area to select plants to use in the green wall. The final 150 plants were chosen to attract pollinators and the wall was placed on the hoarding facing the green space in the church. The system is self-irrigating and can be re used or installed as part of the permanent works or reused on other sites.

To engage with the community and give information on what we're doing and why, we had some information signs made and put these up alongside the installation. These have seen plenty of interest from people using the walk way daily.

The obvious enhancement to biodiversity in the area combined with the incredible air cleaning abilities of the wall (1 million litres per day) makes this particular green wall different to those we've seen before making this, in our opinion, truly innovative.



*Installed system on hoarding with information for public*



*Public information*

### Further information

The installation was carried out by Watermatic, who we worked with to select plants ideal for the local biodiversity. Though no formal monitoring has taken place, we have seen a clear increase in biodiversity in the green space adjacent to the site, particularly in pollinator species such as bees and other insects. We hope that this feature will provide a valuable, albeit temporary enhancement to biodiversity and hope that this will be used on other sites in the future. As this feature can be reused, we would encourage the future users to monitor the air quality in the area and the biodiversity, and possibly engage with local communities to help with the monitoring and raise interest.

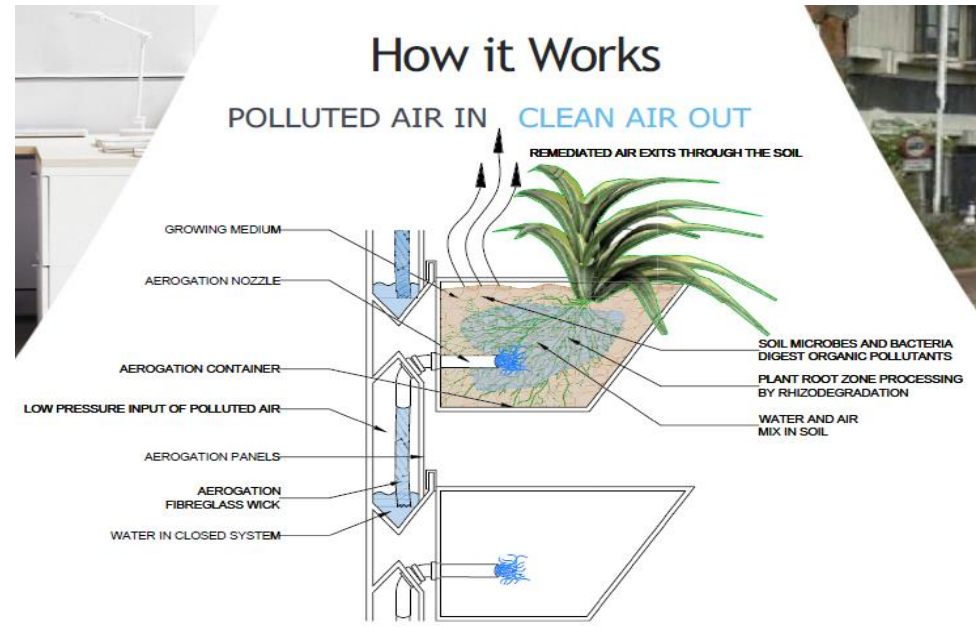
### Project Team

Wedge House project team and Subcontractors

Installation and advice by Watermatic

### What was the motivation for carrying out the enhancement?

Working in London and given the extent of pollution and disruption caused to the natural environment by construction work, we felt that this was our opportunity to give back to the local environment and try to offset the disruption we have caused during the construction of Wedge House. Albeit on a small scale this project enabled the project team to reach out to all contractors on site as well as make a difference to the environment and educate all on the importance to the environment.



### Explanation of the system

