



WHY GREEN INFRASTRUCTURE ISN'T JUST FOR LOOKS

Green walls, facades, and barriers, are vertical structures (e.g. walls, fences) which are at least partially covered with vegetation. They not only add visual appeal to an area, but offer a wide array of benefits within the urban environment.

Temperature

Green walls can reduce air temperatures by 3°C and wall surface temperatures by 9°C, mitigating the rising temperatures under climate change⁽¹⁾.



Moreover, green walls with ivy can act as an insulator in the winter months, keeping the heat in buildings like a natural coat. this can reduce energy usage and bills!⁽²⁾



Plants like ivy offer cooling and insulation through shading due to their dense leaf structure⁽¹⁾.

Fuchsia, primarily cool the environment by the evaporation of water from the leaves⁽¹⁾.



Home to many species

A wide variety of species are able to call green infrastructure home, from birds to insects. The introduction of a green barrier to a Sheffield primary school attracted enough life for them to be able to start conducting minibeast surveys!⁽³⁾



Peace & Quiet

Green barriers can block noise pollution, reducing sound by up to 9dB, that's the difference between inside a car and a quiet conversation!⁽⁴⁾

Drainage

More plants in urban areas means more soil and less concrete, allowing rainwater to seep into the ground, reducing flooding!⁽⁴⁾

Cleaner Air

More plants within our urban areas means more leaf surface area for airborne pollutants to be cleaned from the air!⁽³⁾

(1) [Cameron, R.W., Taylor, J.E. and Emmett, M.R., 2014. What's 'cool' in the world of green façades? How plant choice influences the cooling properties of green walls. Building and environment, 73, pp.198-207.](#)
 (2) [Cameron, R.W.F., Taylor, J. and Emmett, M. \(2015\) 'A Hedera green façade – Energy performance and saving under different maritime-temperate, winter weather conditions', Building and Environment, 92, pp. 111–121.](#)
 (3) [del Carmen Redondo-Bermúdez, M., Jorgensen, A., Cameron, R.W. and Martin, M.V., 2022. Green infrastructure for air quality plus \(GI4AQ+\): Defining critical dimensions for implementation in schools and the meaning of 'plus' in a UK context. Nature-Based Solutions, 2, p.100017.](#)
 (4) [Redondo Bermúdez, M.D.C., Chakraborty, R., Cameron, R.W., Inkson, B.J. and Val Martin, M., 2023. A Practical Green Infrastructure Intervention to Mitigate Air Pollution in a UK School Playground. Sustainability, 15\(2\), p.1075.](#)

