Case studies

We know why we need to greatly reduce our carbon emissions, but how can we do it?

These case studies look at ways we can redesign Edinburgh's buildings, from existing tenements and heritage properties to new offices, housing and schools. The design and construction techniques already exist, but the results vary, and some properties are far more challenging than others.

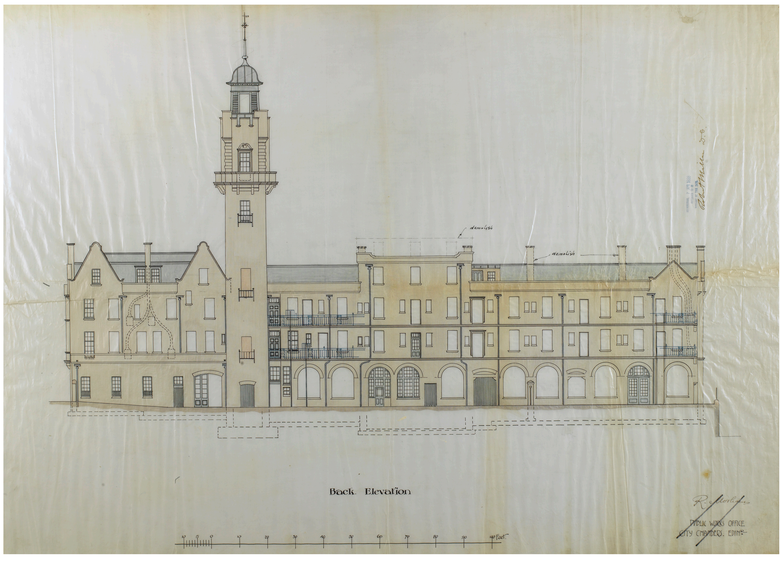
It is evident that historic buildings can't achieve carbon reductions greater than 30-40% without compromising their architectural quality, but new buildings should be aiming for net zero in construction and use. Rather than comparing building to building we should measure the whole city.

As COP26 takes place in Glasgow, SpACE shows where we are in Edinburgh's journey to net-zero carbon in 2021 through the built environment. Over the next 8 years until the 2030 target deadline, techniques will improve, and costs will come down through economies of scale. Exemplary, innovative design and construction pave the way to a better, cleaner environment and the changes needed to combat the climate crisis.

What about SpACE itself?

Using the Engine House in the Fire Station for a pop-up exhibition and events venue is inherently low carbon and supports the re-use of existing buildings.

The exhibition panels are made from recyclable materials and are likely to be used in another pop-up venue in the future. The equipment, furniture and additional lighting have been borrowed.



Architect Robert Morham's (1839-1912) original drawings of the Fire Station from 1897. The building is Category A listed.

The building was one of the UK's first purpose-built fire stations, with flats for firemen and their families. Since it was decommissioned it was purchased by the University and is being used for teaching, for the International Book Festival and for the pop-up SpACE. It is proving to be an adaptable building.

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