CASE STUDY

Maintenance

‘One of the most important things we can do to help Edinburgh adapt and limit the impact of climate change on the buildings and monuments of our beautiful, historic city is to undertake regular planned maintenance.’

Edinburgh World Heritage

‘A wet wall is a third less energy efficient than a dry one.’ So says research by Society for the Protection of Ancient Buildings (SPAB)

Proper maintenance makes buildings more efficient, reducing energy demand. Methodical planning allows you to select and work with the best tradesperson, save money and preserve the character and identity of your home, and of your city.

What maintenance should I do?

Yearly
– Clean gutters and check roof covering, downpipes and flashings

Every 5 years
– Paint and repair windows, gutters and downpipes

– Employ a professional property inspection, a Building Condition Survey

Every 10 years
– Paint communal areas

Every 10 – 20 years
– Replace bitumen felt roofs and flashings

Every 25 to 30 years
– Replace tiled roofs

Every 50 to 100 years
– Replace slate roofs

Energy saving steps in existing buildings

Fabric condition, heritage and cost should be considered first:

– **Existing windows:** use shutters, blinds and curtains, fabric draught excluders, and brush strips, (concealed brushes in conservation areas and listed buildings).

– **New double or secondary glazing:** subject to heritage guidance.

– **Doors:** insulate door panels, fit ‘swivel covers’ to key holes and letterbox covers.

– **Floorboards and skirting boards:** add string, foam strips, compression seals.

– **Chimneys:** where not used, fit chimney boards or ‘balloons’ to prevent draughts, but make sure there is some ventilation to prevent damp.

– **Insulation:** add loft and roof insulation, ground floor insulation, solid wall insulation, with guidance and consent where applicable.

– **Heating system:** optimise heating controls, reflective panels behind radiators.

– **Hot water:** insulate hot water tank and pipes, add solar hot water panels.

– **Electricity:** replace your light bulbs with low energy bulbs, add solar photovoltaics.


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1 Typical damp penetration in an Edinburgh tenement.

How can you maintain your building?

Appropriate management helps maintain good relations between owners and ensures well-planned and funded maintenance. Can you set up an Owners Association, Tenants & Residents Association or Development Management Scheme for tenements?

Have you registered with the City of Edinburgh Council Shared Repair Novoville App? Allowing you to report a repair or maintenance issue to fellow proprietors.

Carbon reduction for existing offices

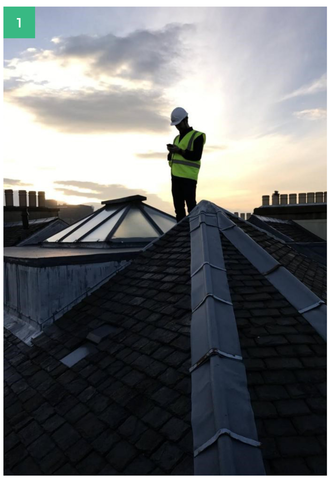
Small offices in converted residential buildings can follow the same guidance as for residential.

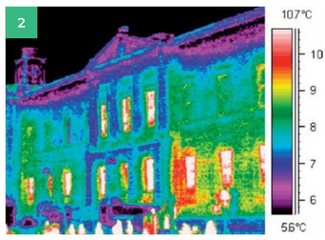
For larger scale existing offices, a thorough fabric condition and energy analysis can quickly identify weak spots in the building’s performance. From service systems, patterns of use, air leakage through to the cladding. Even a 20-year-old building in good condition can achieve energy savings of 30%, which would go a long way towards achieving the net-zero carbon targets. Architects, building surveyors and engineers carry out these services.

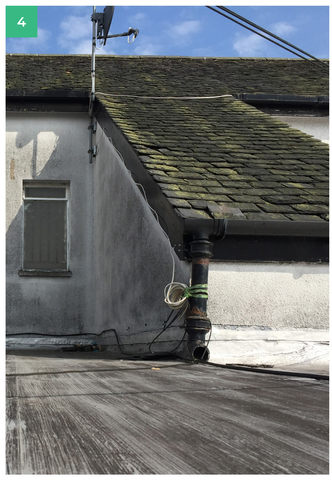
Challenges

– Seeing routine maintenance as part of carbon reduction.

– Agreements and costs in multiple-ownership blocks.







1 Professional building survey to establish scope and quality of maintenance.

2 Thermal Imaging Surveys (IR), a graphic illustration of heat loss from a building in Edinburgh: most of the windows are single-glazed and are emitting more heat than the thermal imaging camera can record (the white areas); six windows on the top floor (the green areas) have secondary glazing and are cool.

3 Typical slate roof and gutter repair.

4 Uninsulated flat roof; a common source of leaks as well as heat loss.

5 Unprotected keyholes are a surprising source of draughts, but easy to fix.

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