

Written evidence Submission from The Architects' Journal's RetroFirst campaign for reuse of existing buildings

Introduction

The AJ RetroFirst campaign for the reuse of existing buildings was launched in September 2019 and has continued to gather support from leading organisations and businesses in the property and construction industry. It calls on the government to drive down emissions in the UK's wasteful construction sector by introducing reform in three different areas— tax, policy and procurement, with the second area chiefly concerning changes to the planning system and the building regulations.

The RetroFirst campaign is backed by more than 200 architect practices including **14 winners of the RIBA Stirling Prize**.

With widespread support across the industry, other RetroFirst supporters include:

- Property developers including **British Land, Canary Wharf Group, Grosvenor Britain and Ireland** and engineers including **Arup, Max Fordham and WSP**.
- Professional organisations such as the **RTPI, the TCPA, the RIBA, the RICS, the UK Green Building Council** and the government-established **Building Better, Building Beautiful Commission**

In January, a letter to the Times in support of the campaign (see below in full) was signed by 35 prominent individuals including **Baroness Lawrence, Lord Foster of Thames Bank, Sir David Chipperfield, Thomas Heatherwick, Sadie Morgan, British Land chief executive Simon Carter and former environment secretary Lord Deben**.

The campaign has also been cited in The Guardian and by BBC energy correspondent Roger Harrabin while a forthcoming short film made by the AJ to explain RetroFirst to the public has been voiced by broadcaster and architect George Clarke.

The name of the RetroFirst campaign refers to the notion of putting retrofitting and refurbishment first in order to tackle the high carbon cost of producing buildings and structures in the first place (embodied carbon).

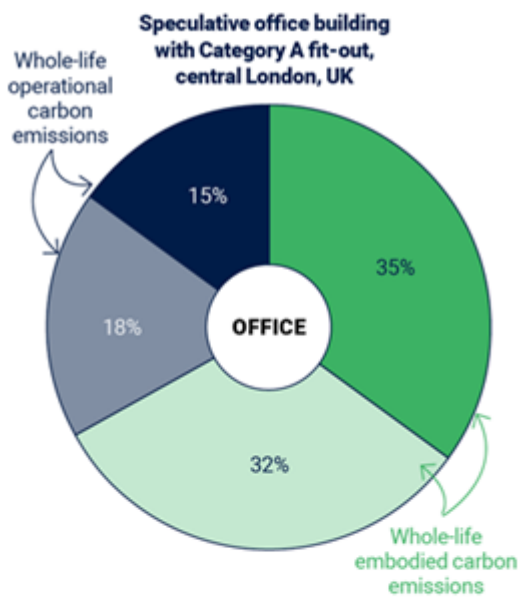
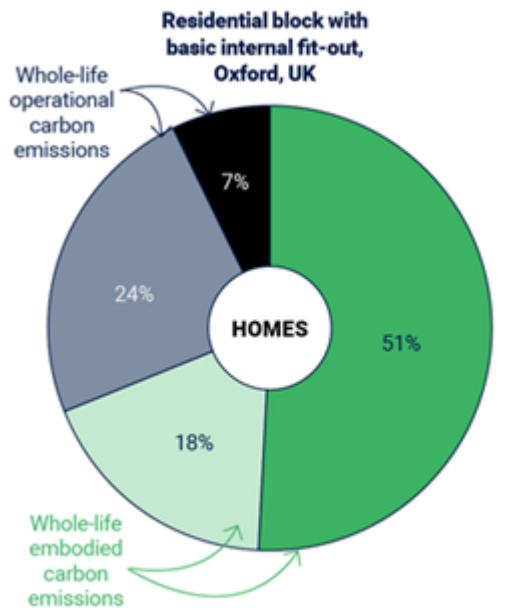
As the Environmental Audit Committee highlighted in a recent inquiry, the UK generates 1.5 million tonnes of electrical waste each year. But the equivalent figure for construction waste is 126 million tonnes – almost two thirds of all waste produced in the UKⁱ.

Buildings, like electronic gadgets, are quickly seen as becoming obsolete with 50,000 buildings lost through demolition each yearⁱⁱ. More often than not, they are replaced with new and bigger buildings by a construction industry which gobbles up fossil fuel-hungry cement, steel, aluminium and plastic. Just one multinational contractor and developer active in the UK, Lendlease, told me it uses the equivalent of 62 Eiffel Towers-worth of steel each year. No wonder construction accounts for around 10% of the country's carbon emissionsⁱⁱⁱ, a figure which is only likely to grow.

Looking at the lifetime or whole-life carbon impact of buildings (their embodied energy plus 'operational' or day-to-day energy use), the Royal Institution of Chartered Surveyors (RICS) has found that, **by practical completion stage, 35 per cent of the whole-life carbon of a typical office**

development will already have been emitted, while the figure for a residential block is 51 per cent:

Carbon comparisons



- Whole-life embodied carbon emissions**
- Embodied emissions to practical completion
 - Embodied emissions over life cycle
- Whole-life operational carbon emissions**
- Operational emissions – regulated (from designed-in appliances)
 - Operational emissions – unregulated (from occupants' plugged-in appliances)

Simply speaking, the RetroFirst campaign recommends that we reuse what we have and stop the wasteful cycle of demolition and rebuild. As Carl Elefante, former president of the American Institute of Architects, said: **'The greenest building is the one that already exists'**.

This is especially important since 80% of the buildings we will have in 2050 have already been built.^{iv}

What role can the planning system, permitted development and building regulations play in delivering a sustainable built environment? How can these policies incentivise developers to use low carbon materials and sustainable design?

While England once led the world in standards of protecting historic buildings, the country has acquired a habit for the large-scale and needless tearing down of buildings over the decades. Independent planning expert Peter Studdert has spoken in the AJ of the 'over-enthusiastic demolition of perfectly sound Victorian terraced houses' in some of the Housing Market Renewal Pathfinder Areas in the late 2000s, while Julia Park, head of housing research at architect practice Levitt Bernstein, points to the earlier demolition of Euston Station, and the Mappin & Webb building in the City.

Housing estates are all too often bulldozed, says Joe Giddings, co-ordinator at the Architects Climate Action Network (ACAN).

'There are a lot ... Robin Hood Gardens, the Aylesbury Estate and the Heygate Estate were all unnecessarily demolished, or are in the process of demolition, when they could have been retained and refurbished,' Giddings told the AJ last year.

One might have thought all the talk of a green recovery from the pandemic would have slowed the wrecking ball, yet the opposite seems to be the case judging by the stories published in the AJ in recent months. **SAVE Britain's Heritage**, a charity established almost half a century ago in the face of stately homes up and down the country being destroyed, **says it is never been busier fighting for historic buildings under threat.**

Just looking at the capital, there are plans to bulldoze a whole section of Fleet Street, part of a conservation area in the City of London, while Marks and Spencer aims to demolish its existing 89-year-old, 160,000 sq ft building on Oxford Street and replace it. Meanwhile, Foster & Partners' City Hall – which is less than 20 years' old – has been named by heritage group The Twentieth Century Society's as one of its top 10 endangered buildings of historical and architectural importance, and numerous well-designed housing estates like Cressingham Gardens in Lambeth are under threat of demolition.

The RetroFirst campaign argues that **central government must take the lead in promoting the reuse and high-quality refurbishment of all existing buildings**, an even more urgent task given the new target of cutting carbon emissions by 78% by 2035. Local government knowledge of the circular economy is patchy and, as the Royal Town Planning Institute (RTPI) pointed out in a report published in March, cash-strapped councils are failing to live up to their declarations on the climate emergency because of an 'overwhelming focus' on housing numbers and viability.

In terms of planning, the National Planning Policy Framework (NPPF) could be amended to include new obligations requiring any application proposing demolition of an existing building to demonstrate that reuse of the existing structure was first properly explored.

Peter Studdert has argued that a 'presumption in favour of refurbishment' should be inserted into the NPPF as a subset of the 'presumption in favour of sustainable development'. A similar policy is already in operation in the Netherlands.

Studdert's suggested wording, he told the AJ last year, was: 'In determining planning applications, there should be a presumption in favour of developments that reuse and refurbish existing buildings.'

The Building Regulations meanwhile could be reworded to promote the use of reclaimed building materials and embrace the concept of the circular economy. Changing this could be done either by creating an entirely new part of the regulations or by amending 'Part L', which relates to the conservation of fuel and power. In addition, Building Regulation 7, which deals with materials and workmanship, could also be updated to take account of embodied carbon. 'It is easy to imagine a few lines being added into that to encourage reuse of existing materials,' Joe Giddings of ACAN told the AJ last year.

According to Geoff Wilkinson, a building inspector and AJ columnist, one of the biggest challenges is that the Building Regulations are only worded to recognise the use of new materials, and these have to be certified.

'When you are using recycled or upcycled materials, it is highly unlikely that they will be tested to the current standards, so you have this immediate barrier,' he says. 'What needs to happen is that the regulations are reworded and ensure that upcycled and recycled materials can be used.'

'We really need to ensure that we keep much better records of products and materials that are going into buildings to ensure that the paper trail is there. BIM [building information modelling] records can help us to determine that these materials are suitable for reuse.'

In addition, Wilkinson proposes that the regs should be updated to include both an Energy Performance Certificate and a new 'materials performance certificate'. This could ensure a whole-life carbon approach so that the embodied carbon in the materials used forms as much of a part of a building's sustainability profile as its potential in-use energy efficiency.

What can the Government do to incentivise more repair, maintenance and retrofit of existing buildings?

In the context of the UK's world-leading carbon-cutting targets and its hosting of the forthcoming COP26 summit, we believe that the government urgently needs to show circular economy leadership, especially in regard to buildings and construction. Adopting such RetroFirst reforms would help the UK underline its global leadership on climate change, achieve its ambitious targets, and make the drive to make existing buildings more energy-efficient more effective and coherent.

However, despite the AJ writing to cabinet ministers including Robert Jenrick about the campaign and making submissions to the consultation on the Planning White Paper, the signals from MHCLG about this subject have been bafflingly inconsistent.

Last September, Stephen Greenhalgh, minister of state for building safety and communities, told a House of Lords debate on planning reform that the RetroFirst campaign would be 'fed into policy as it evolves'.

The minister said he was 'aware of the campaign for retrofitting,' adding that the re-use of buildings 'often has a place instead of demolition and rebuild'.

However, Jenrick has repeatedly suggested he is supportive of demolition, particularly in regard to post-war buildings and in regard to the permitted development rights (PDR) regime. Some of his comments about buildings appear to be driven, not by environmental considerations, but by perceptions about architectural style, local popularity or the existing restrictions on property development.

At the 2019 Conservative Conference, the Communities Secretary resurrected the party's earlier suggestion to allow developers the right to demolish commercial buildings and replace them with homes without the need for full planning permission. Jenrick said that the 'revolutionary' idea would give 'the freedom for a developer to demolish'.

In September 2020, he spoke of the importance of protecting heritage buildings, saying: 'Our changes will avoid a repeat of the ill-fated programme of demolition and destruction pursued by governments of the past that resulted in thousands of well-built, pre-1919 terrace houses being needlessly destroyed. Today, developers are rediscovering the value in the renovation and refurbishment of Victorian terraces.'

Yet the following month, he told Policy Exchange that permitted development provided a 'big opportunity' to bulldoze buildings.

He said: 'There is a big opportunity to demolish some of the mistakes of the recent past because you do see quite a lot of derelict buildings in town cities and centres,

'They were put up – often poorly constructed, not within the character of those places, particularly in market towns – in the 60s and 70s and [demolishing them] is one of the reasons we brought forward our permitted development for regeneration.'

Only this month, Jenrick effectively paved the way for the 1970s Derby Assembly Rooms to be demolished by declining Derby City Council's invitation for him to call in the application. This was despite repeated calls to him to recognise the whole-life carbon case for retaining and refurbishing the building by leading designers, architects and heritage campaigners.

Will Hurst, managing editor, The Architects' Journal

Letter to The Times in full (published 16th Jan 2021)

BUILDING EMISSIONS

Sir, The commitment shown by ministers to making the forthcoming COP26 conference a success is to be commended ("Business secretary quits to focus on UN climate conference", Jan 9). However, since the construction sector is responsible for about 45 per cent of UK carbon emissions, the government cannot ignore our wasteful addiction to demolition and rebuilding. We lose more than 50,000 buildings a year by demolition, and construction is far more carbon-intensive than refurbishment. According to the Royal Institution of Chartered Surveyors, more than

half of the lifetime carbon emissions of a typical residential block will have been emitted by completion.

Before COP26 the government should introduce reforms to underpin a new circular economy approach to net-zero construction as set out in the RetroFirst campaign by *The Architects' Journal*. It recommends that the government cut VAT on refurbishment to 5 per cent or less, amend planning guidance and the building rules to promote reuse of existing buildings to high standards, and insist that all publicly funded projects look to retrofit solutions first.

This would not only underline the UK's leadership at COP26 but would put a rocket under the drive to upgrade the energy efficiency of homes, schools and hospitals.

Sadie Morgan, founding director, dRMM Architects; **Lord Foster of Thames Bank**, founder, Foster + Partners; **Baroness Lawrence**, founder, Stephen Lawrence Day Foundation; **Simon Carter**, chief executive, British Land; **Nicholas Boys Smith**, director, Create Streets; **Hanif Kara**, design director, AKT II; **Thomas Heatherwick**, founder, Heatherwick Studio; **Lord Deben**, former environment secretary; **Sir David Chipperfield**, principal, David Chipperfield Architects; **Dame Polly Courtice**, founder director, University of Cambridge Institute for Sustainability Leadership; **Kevin McCloud**, broadcaster; **Will Hurst**, managing editor, *The Architects' Journal*; **Emily Booth**, editor, *The Architects' Journal*; **Femi Oresanya**, honorary professor, Bartlett School of Architecture; **Victoria Hills**, chief executive, Royal Town Planning Institute; **Amin Taha**, chairman, Groupwork; **Stephen Hodder**, chairman, Construction Industry Council; **Steve Tompkins**, director, Haworth Tompkins; **Julie Hirigoyen**, chief executive, UK Green Building Council; **Mark Farmer**, independent champion for modern methods of construction in housebuilding and chief executive, Cast Consultancy; **Sarah Wigglesworth**, director, Sarah Wigglesworth Architects; **George Clarke**, architect and broadcaster; **Alan Jones**, president, Royal Institute of British Architects (Riba); **Tor Burrows**, executive director for sustainability & innovation, Grosvenor Britain & Ireland; **Lesley Lokko**, architect; **Chris Wise**, senior director, Expedition Engineering; **Loyd Grossman**, author and broadcaster; **Julia Barfield**, founding director, Marks Barfield Architects; **Ian Ritchie**, founder, Ian Ritchie Architects; **Mark Tillett**, founding director, Heyne Tillett Steel; **Maria Smith**, Riba councillor and Mayor of London's design advocate; **Christina Gaiger**, president, Royal Incorporation of Architects in Scotland; **Matt Howell**, UK & Ireland managing director, Royal Institution of Chartered Surveyors; **Asif Khan**, founder director, Asif Khan Ltd; **Gary Clark**, chairman, RIBA sustainable futures group.

May 2021

ⁱ DEFRA

ⁱⁱ The Exeter Centre for Circular Economy

ⁱⁱⁱ UK Green Building Council

^{iv} 2014 ENTRANZE report Laying Down the Pathways to Nearly Zero-Energy Buildings

^v RTPI report: 'Place-Based Approaches to Climate Change: Opportunities for Collaboration in Local Authorities'