103 Tindal St
Birmingham B12 9QU
zerocarbonhouse@gmail.com
@zerocarbonhouse
+44 (0)7722470152

Smallbrook Ringway: environmental planning objection

December 2022

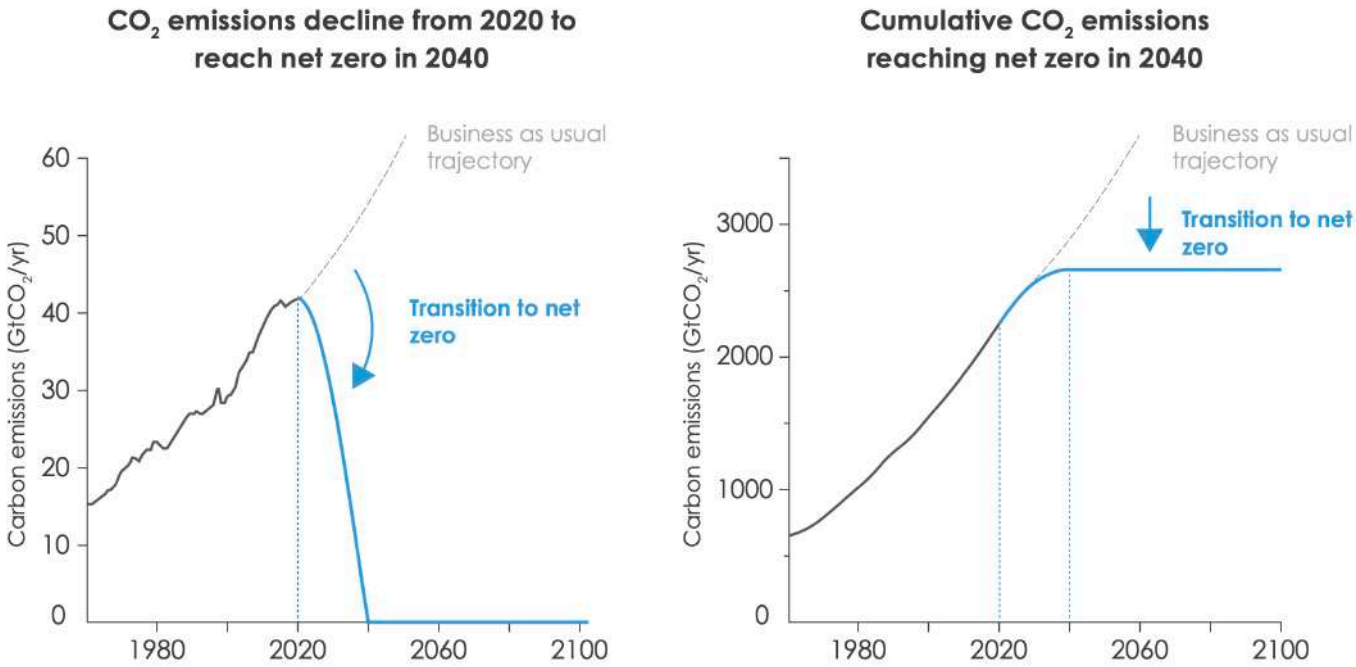
1.
The planning application appears **inadequate in its response to the climate emergency.** The graphs opposite show the steep UK carbon reductions legally required by 2050.

2.
Data is lacking on carbon impact, especially embodied carbon and whole-life carbon of the proposals. This must be made available for proper public consultation and scrutiny before any planning decision is made.

Birmingham planning letter 08.07.22 requested assessment of "how the development will interact with the environment during both the construction and operational phases."

The application fails to do this, and **surprisingly states CO_2e emissions causing climate change from this major development are "not significant"** and therefore not assessed, contrary to good practice (see 16 below).

Greenhouse gas emissions are described as "0.44%" of Birmingham's total, but figures may disguise a carbon footprint up to 15 times greater than the Birmingham domestic average.



Magnitude of global carbon reductions required to limit warming to 1.5degC Paris target.
Credit: LETI, based on IPCC data.

3.
Elsewhere planners request "a description of the measures to avoid, prevent, reduce or … offset any identified **significant effects** on the environment … [and] proposed monitoring arrangements … [covering] both the construction and operational phases". (Volume 4, p.45)

Note: classifying the climate emergency as "not significant" may avoid assessment of the proposal's large carbon/climate impact, despite the overwhelming importance of this in legislation, policies and recommendations from UN, CCC, UK Govt, IEMA, Birmingham City Council, WMCA, UKGBC, LETI, RIBA, etc. As numerous other environmental impacts are assessed in detail, this obfuscation is seriously misleading.

Smallbrook Ringway "Rainbow bridge": retaining the existing building is likely to be the lowest carbon alternative.

4.
Energy Assessment LZC
Couch Perry Wilkes' energy document and low and zero carbon feasibility study is referenced in the planning documents, but is **absent from the planning portal: please could this be provided?**

Across UK, this is already happening, eg
Haworth Tomkins architects, Brutalist tower redevelopment, Maydew House and Bede site London 2024 (below).

5.
Although Turley's Planning statement and Sustainable construction statement include some welcome statements, they are insufficient to explain the proposals, even at high level, eg:

(a) What is energy use in the apartments and how does it compare with the RIBA 2030/LETI recognised good practice maximum 35 kWh/sqm.yr?
(b) What is the operational carbon of the proposals at year 1 and over 60 years? How does it compare with good practice low or zero carbon $kgCO_2$/sqm.yr required?
(c) What proportion of the building's energy would be provided by the PV solar panels and/or other renewables?
(d) Although a carbon reduction of 56% from regulations is mentioned, this appears to be **less than the legal minimum 80%** reduction required by Govt Future Homes Standard from 2025?
(e) Air source heat pumps are mentioned at roof and low level, but none are apparent on elevation drawings. These could be noisy and visually detrimental.

Ground source pumps may be preferable: quiet, inobtrusive, more efficient, and boreholes require little land.

(f) **What is the embodied and whole-life carbon** of the proposal, to RICS methodology, including demolition? How does it compare with RIBA 2030/LETI good practice maximum 625kgCO_2/sqm? **No embodied carbon project data is included.**

6.

Consideration of alternatives

IMEI and other recognised good practice for Environmental Impact Assessment requires proper consideration of alternative designs and their carbon impact. The submission states only minor variations of the three-tower proposal have been considered.

However, it is suggested the options below should be assessed for whole-life carbon.

(a) conversion/retrofit of the existing building;
(b) conversion plus extension/alteration as the Counter-proposal;
(c) variations for re-development which retain most or all the existing;
(d) the previously approved scheme.

Note: in the absence of any comparative embodied carbon and whole-life carbon assessment, an informed decision on the fundamental planning issue, whether to allow demolition of this complete street of Locally Listed buildings, is impossible. The Environmental Audit Committee report on embodied carbon (May 2022) advises reuse of all buildings must be prioritised. The Public Inquiry last month, into embodied carbon of M&S Oxford Street demolition, demonstrates the urgency of this issue.

7.

Premature demolition

If redevelopment will take fourteen years, as the application states, **premature demolition would leave a vacant site.** Early demolition is unnecessary, would prejudice the low carbon retention of the existing building, destroy a locally listed heritage building - and avoid it being statutorily listed in the future. The temporary "meanwhile use" indicated in the planning statement is unconvincing.

8.

Affordable homes

City policy TP32 seeks "35% affordable homes as a developer contribution" **but none is proposed.** Birmingham City Council is a site landowner, so despite the financial statement, it should be possible to fulfil this requirement. Without it, social exclusion and inequality would result, **undermining many progressive Birmingham planning policies.** Mixed family/community/social facilities are desirable.

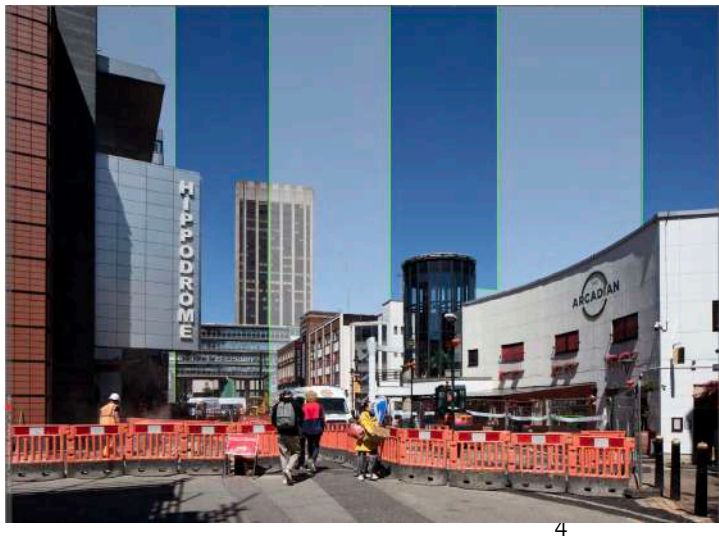
9.
"Smallbrook Greenway"
The landscape supporting document is **warmly welcome.** Converting half the road to landscape will complete "breaking the concrete collar" building on Birmingham's success.

Author comment: the "Greenway" document appears to have no planning status. Note the proposal is made possible by changing the road layout: landscaping north of the building it is not dependent on demolition of the existing building.

"Smallbrook Greenway": half the Queensway has been given over to landscaping. This appears to have no planning status, but is warmly welcome north of the building.

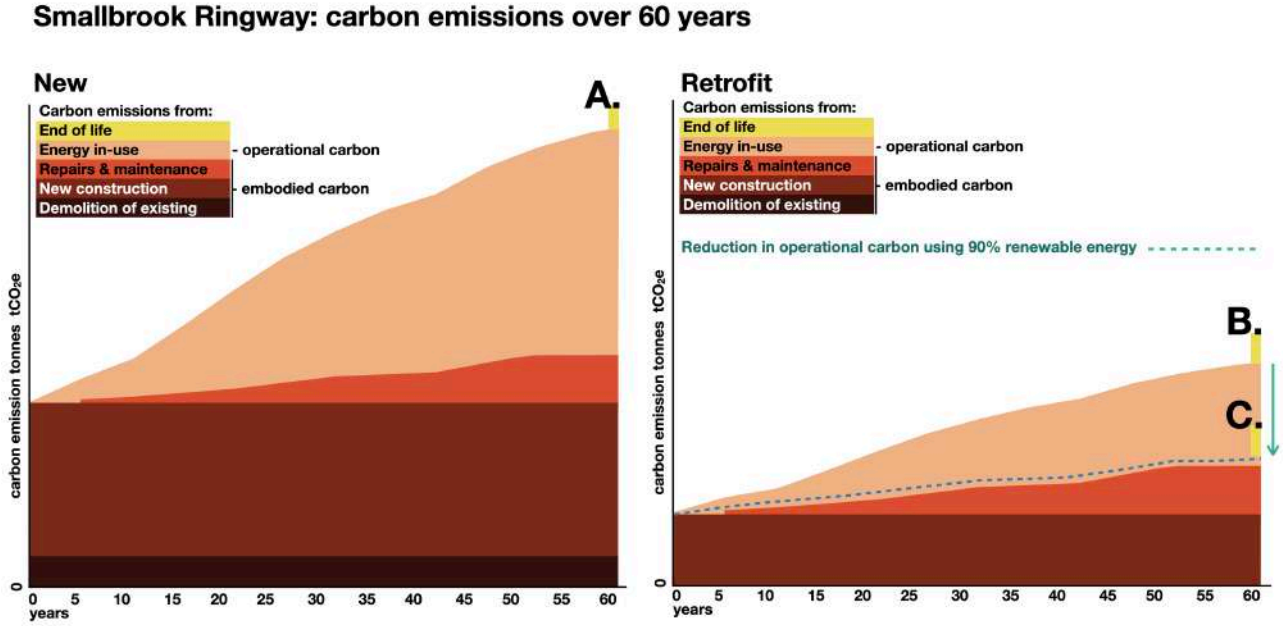
10.
The simulated views do not demonstrate the towers "positively contribute to the Cityscape" (Volume 4, p.19): **they would be over-bearing, forming almost a high-rise wall, out of scale, and enormously carbon intensive, in both their construction and operation.**
The repeated assertions that the existing built heritage has "low value" and impacts are "not significant" **are subjective and highly questionable.**

Simulated view from planning application.
The proposed high-rise towers would be over-bearing, in combination forming almost a high-rise wall, out of scale, and enormously carbon intensive.



11.
National planning policy (NPPF) requires "radical reductions in greenhouse gas emissions" through "the reuse of existing resources, including the conversion of existing buildings". Best practice recommendations align with and reinforce these policies. Examples include the LETI Climate Emergency Design Guide's first "primary action", to "build less", asking "is a new building necessary?" LETI's Embodied Carbon Primer prioritises "making use of the site and retrofitting existing buildings rather than building anew."

The building's whole life carbon is made up from Embodied carbon + Operational carbon + End of life (demolition/reuse/disposal) = Whole Life Carbon. Up to 75% of the whole life carbon impact can be the embodied carbon in the building/construction itself. When this is properly included, demolition and extensive new construction are revealed as particularly damaging, as they would both cause large and immediate "spikes" in carbon emissions. Rather than reducing carbon, as City and UK policy requires in the next few years, the proposals appear to give a significant increase in emissions.



A. Planning application: demolition and new construction to Building Regulations.
B. Counter-proposal: energy-efficient retrofit with extensions and alterations.
C. As B with renewables supplying 90% of operational energy.

Park Hill, Sheffield.
Energy efficient retrofit redevelopment by Urban Splash.
A Brutalist architectural icon, the same age as Ringway.

The Sunday Times recently cited the building as helping to make Sheffield the **'Capital of Cool'.**

12. Indicative illustrations of the cumulative carbon emissions over 60 years. The counter-proposal retrofit (B) is likely to have much lower embodied carbon and whole-life carbon emissions than demolition and new buildings (A).
When coupled with renewable energy (C), whole-life carbon could be further reduced to a small fraction of (A).
Note these comparisons are indicative, and require verification with a detail scheme, but show the significantly reduced carbon emissions inherent in a low-energy retrofit.

13.
Birmingham Design Guide: The Birmingham ID City Manual (September 2022) Extract:
Building re-use: "appropriate assessment of whether any existing buildings could be effectively re-used".

Note: this assessment has not been carried out. Reuse of the existing building is entirely feasible, noting proposed upper level storey heights are 3m, compared with 3.5m existing, and many buildings of this era are being successfully reused.

14.
Birmingham Design Guide: Efficient and Future Ready City Manual (September 2022) Extracts:
EF4: [buildings longevity] … "with the ability to accommodate a wide range of uses … easily refurbished as uses change … could give buildings a longer lifespan"
EF5: low carbon building materials "reusing existing building fabric"

Note: both these policies encourage retention of existing buildings, which has not been assessed or considered, except in the Counter-proposal.

15.
Birmingham Design Guide: Healthy Living and Working Places City Manual (September 2022) Extracts:
LW38 "…how [a tall building] will relate to its counterparts". The proposed west tower looks **uncomfortably cramped** next to the adjoining tower already approved.

LW44 wind and microclimate, requires that proposals "must meet Lawson criteria", ie must not create uncomfortable wind conditions, but the application shows the proposals **do not meet this standard:** very tall towers appear inappropriate here.

16.
IMEI Assessing Greenhouse gas emissions and evaluating their significance (February 2022) Extracts below. Compare (2) above.
"A lot has changed since 2017. Climate change has moved up the national and international agenda with local authorities across the UK declaring a climate change emergency. The UK's legally binding Climate Change Act 2008 was amended in 2019 in response to the Paris Agreement, setting a **new and challenging target to reduce UK GHG emissions to net-zero by 2050**, accounting for residual emissions which are offset. … In December 2020, the UK Government's independent advisors, the Climate Change Committee (CCC), set the sixth carbon budget at 965 million tCO2e from 2033 to 2037, which has since been **enshrined into law.** There is a distinct requirement for deeper cuts in emissions across all sectors of the economy to meet the **net-zero target** according to the CCC.
For planners, developers, regulators and impact assessment professionals working with, or commissioning, GHG impact assessment, this publication provides updated and improved guidance, developed by leading practitioners from the past 5 years of practice on complex projects. The guidance builds on the previous IEMA guidance and reinforces the need to use competent experts for specialist topics such as GHG assessment."

"The 2017 guidance stated that **"...in the absence of any significance criteria or defined threshold, it might be considered that all GHG emissions are significant..."**. [IMEI describe] …five distinct levels of significance which are not solely based on whether a project emits GHG emissions alone, but how the project makes **a relative contribution towards achieving a science-based 1.5°C aligned transition** towards net zero."

Author comment: no science-aligned 1.5°C aligned data (eg UKGBC, RIBA 2030 or LETI standards) has been provided.

"The IEMA GHG Management Hierarchy [is to] eliminate, reduce, substitute and compensate.
- Do not build: evaluate the basic need for the proposed project and explore alternative approaches to achieve the desired outcome/s
- Build less: realise potential for re-using and/or refurbishing existing assets to reduce the extent of new construction required."

Author note: these good practice principles have not been followed: retention will likely be much lower carbon.

"IEMA's 2010 principles on climate change mitigation and EIA identify climate change as one of the defining environmental policy drivers and that action to reduce GHG emissions is essential. Specifically, three overarching principles are particularly relevant in considering the aspect of significance:
1. **The GHG emissions from all projects will contribute to climate change,** the largest interrelated cumulative environmental effect.
2. The consequences of a changing climate have the potential to lead to significant environmental effects on all topics in the EIA Directive (e.g. human health, biodiversity, water, land use, air quality)
3. GHG emissions have a combined environmental effect that is **approaching a scientifically defined environmental limit;** as such **any GHG emissions or reductions from a project might be considered to be significant.**"

17.
IEMA's lowest standard is "Major adverse: the project's GHG impacts are not mitigated or are **only compliant with do-minimum standards set through regulation**, and do not provide further reductions… A project with major adverse effects is locking in emissions and does not make a meaningful contribution to the UK's trajectory towards net zero."

Note: Passivhaus, LETI and RIBA Carbon Challenge 2030 standards for operational and embodied carbon, and to a lesser extent the Future Homes standard (FHS), are appropriate benchmarks for this major development. Although FHS is not mandatory until 2025, that is still nine years before this project completes in 2036. FHS requires 80% operational carbon reduction. Passivhaus Plus, RIBA 2030 and LETI standards are more reliably 1.5degC science-aligned, the latter two including embodied carbon.
The 56% carbon reduction offered is a step forward, but unfortunately appears less than FHS's 80% impending legal minimum.
Commitment to Passivhaus and RIBA 2030/LETI operational and embodied carbon standards should be essential requirements.