



Jeremy Randall
Partner
Tel. +44 (0)20 7333 6328
jrandall@geraldeve.com



Liam Lawson Jones
Associate
Tel. +44 (0)20 3486 3605
llawsonjones@geraldeve.com

WHOLE LIFE CARBON OPTIONEERING – CITY OF LONDON PLANNING ADVICE NOTE CONSULTATION



Just over one year on from publication of our first sustainability thoughtpiece, “**Sustainability and the New London Plan**”, things have moved on significantly in the world of sustainability, mainly around carbon and retrofit. Today, the City of London (CoL) have published their draft Planning Advice Note (PAN) on **Whole Life Carbon Optioneering**. The consultation started today following approval by Members of the Planning and Transportation Committee on 7 June 2022.

The Consultation is open until 30 September 2022. The PAN seeks to promote consistency in reporting as the CoL look to create a public dashboard for data sharing on the topic of Whole Life Carbon. The draft guidance is extremely instructive in the context of carrying out whole life-cycle carbon options appraisals to inform development decisions around embodied and operational carbon and we welcome its publication.

Policy changes and updates

Since the publication of the London Plan in March 2021, the Greater London Authority (GLA) have published the Whole Life Carbon Assessment (WLCA) **London Planning Guidance** and the Government has started consulting on revisions to building regulations to make a number of changes to how carbon is regulated and reported through changes and updates to Part L: Conservation of Fuel and Power, and the introduction of a new industry driven (and drafted) Part Z: Whole Life Carbon.

Following the publication of the GLA's WLCA London Planning Guidance in March 2022, the CoL's PAN is the first policy document that provides a framework for considering different development scenarios at pre-application stage to assess the carbon impacts, in order to help maximise the reduction of embodied carbon emissions resulting from development, and thereby providing a robust methodology to assess the case for demolition. Once adopted, later in the year, we expect that many other Local Authorities will use the PAN as a framework for their own guidance. The PAN is a pre-cursor to the CoL's eagerly awaited Sustainability Supplementary Planning Guidance later in the year.

The PAN seeks to consolidate methodology and policy and the requirement for a consistent, unified framework for all major applications submitted within the Square Mile to report on Whole Life Carbon (WLC) during the pre-application stage and at application submission/determination stage. It is important to note that the PAN does not preclude demolition, rather it provides a framework to allow developers to demonstrate that demolition could clearly outweigh the benefits of retaining all or part of an existing building or structure.

It attaches great weight to carbon but recognises that carbon is one of many sustainability considerations in assessing how best to optimise a development site.

The PAN provides a very useful summary of the current policy framework, which highlights how poorly regulated carbon is by policy. There are many different metrics and tools of assessment; building regulations, planning policy at the local and regional level, BREEAM requirements, Nabers UK, LETI Guidance, GLA Carbon Factors and Greenhouse Gas reporting within Environmental Statements (amongst others) and how they all coalesce together when one is trying to submit a planning application.

The PAN recognises the challenge of providing accurate data at pre-application and application submission stage, before detailed design (beyond RIBA Stage 2 or 3) and contract procurement has taken place.

The PAN also confirms that the **CoL will continue to expect WLC Assessments for non-referable developments in the City, and add conditions requiring detailed WLCA updates at RIBA Stage 4 and post completion based on as-built information.**

Scoping the assessment

The current adopted policy framework does not prohibit demolition of buildings which is recognised in the PAN. The PAN acknowledges that demolition can lead to wider planning benefits being achievable for some sites. It makes clear that a qualitative and quantitative analysis needs to be made in looking at whether it is best to demolish a building, which includes benchmarking the redevelopment option against hypothetical scenarios that seek to retain varying degrees of a building. The PAN provides a method to enable consistent reporting of whole life-cycle carbon emissions for a range of typical development options for different degrees of major interventions in the commercial built environment.

These are **(1) Minor Refurbishment, (2) Major Refurbishment, (3) Major Refurbishment with Extension and (4) New build, reclaim and recycle.**

The PAN provides details of what information is required for each of the options, and provides a framework for how they should be presented and reported. **It clarifies that where substantial refurbishment or demolition is not being considered an options appraisal is not required. A WLCA is required for all major developments.**

Section 5 sets out the factors that should be explored and assessed in considering development options (in addition to the detailed WLCA reporting); these include:

Quality of existing building(s) – quality of materials, whether its suitable in part or in full for retention and adaptation, presence of toxic materials (such as asbestos).

Façade interfaces – understanding energy performance and design quality potential and if existing buildings can be meaningfully upgraded.

Health and Wellbeing – mixed mode ventilation, internal daylight, external amenity and whether this can be achieved in existing buildings.

Floor to ceiling heights – potentially unsuitable for intended use through adaptation.

Land use and building type – can alternative uses fit within the existing building?

Power infrastructure – making the right assumptions about energy use and energy reduction.

Building complexity – prioritising simpler structural solutions to decrease embodied carbon intensity.

Procurement – challenges with availability of low carbon materials.

Commerciality – does it make financial sense?

Densification – what solutions best optimises the use of the City's limited land.

In the context of the above considerations, the PAN acknowledges that a feasible and deliverable carbon equation needs to be achieved with any intervention in the built environment. The PAN acknowledges that other policy priorities, particularly urban greening and public realm may merit demolition of buildings in order to achieve more benefits from development.

Gerald Eve were part of the team involved in the preparation and pre-application publication of the **London Wall West Whole Life Cycle Carbon Assessment**. The analysis includes a detailed qualitative and quantitative assessment of whether to re-use the existing buildings. The report acknowledges that redevelopment results in more carbon in absolute terms than a potential retention scenario, but this investment in carbon is necessary to unlock the most benefits for the site.

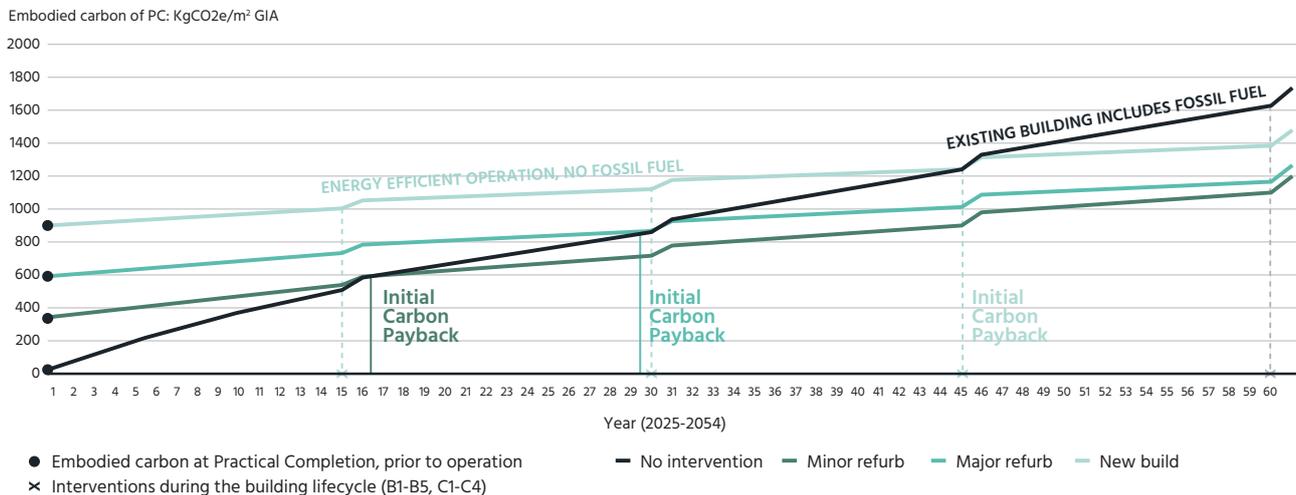
The PAN outlines that presenting options for development of buildings or sites, consistent data needs to be provided relative to the existing building, including:

- Actual annual energy consumption of the existing building (whole building annual energy meter reading).
- An equal rate of electrical grid decarbonisation over time applied to operational energy (derived from the latest BEIS Energy and Emissions Projection (EEP)).
- An equivalent approach to the level of assumptions and certainty applied to embodied carbon estimates.
- Equivalent scope for the WLCA (lifecycle stage and building element scopes).
- Embodied carbon impact of further interventions to be included, say every 15 years of operation over the lifecycle, using lifecycle modules B1-B5, C1-C4¹.

The considered and assessed options should be clearly modelled using the format shown in the graph below:-

Cumulative carbon emissions

Source: Hilson Moran



The graph and associated dashboard is proposed to provide easily absorbable, visual and quantified information, about whole life-cycle carbon emissions of development to enable an informed discussion of options between applicants and the CoL and result in consistent reporting to inform Member decisions.

The opportunities, constraints and notes/assumptions should be provided and illustrated for all options.

¹ Module B7 'Water Consumption' can be excluded at this stage because it does not vary significantly between options.

Thoughts and Conclusions

The PAN is welcomed as it creates certainty and a framework within which we can all operate. It memorialises a system in which many schemes are having to operate in already at pre-application stage, and it is helpful for those working in the City and elsewhere to understand what is expected. It is clear to us that this requires a significant amount more analysis and modelling from design teams in order to justify demolition, if proposed. Designing retrofit schemes as hypothetical comparisons against redevelopment is challenging and often relies on several assumptions being made to carry out these incredibly detailed assessments.

This is important for the later stage review mechanisms secured by condition which are yet to be meaningfully tested as developments are under construction. How Local Authorities respond to potential improvements or worsening performance is an important consideration. Supply chain issues, infancy of materials banks/widely available recycled materials, economics and the need to respond to site specific considerations during detailed design and delivery all have the potential to change the assessments and outcomes from the planning application stage.

The summary of policy makes clear that an overhaul and integration of carbon policy and reporting methodologies is required at a national, regional and local level in order to ensure consistency and clarity for the entire built environment sector. In the context of the climate emergency, it is right that demolition is challenged and fully justified, but presently the policy framework is not there. Updates to Building Regulations, planning policy and work from industry bodies (UKGBC, LETI, Nabers UK and others) all need to be aligned in what the expectations are, and that they can be implemented by the built environment sector.

WLCA and associated reporting are reasonably new, and there are very few schemes that have had to submit details at the detailed design/build stage. How the CoL and other local authorities deal with potential changes (for better or for worse) and how this is evidenced or justified, remains a concern.

Another interesting point is how the CoL and other Local Authorities shape land use policy, where an existing office building could for example easily be adapted to an alternative use (residential, hotel, student accommodation etc), how do we address policy which resists the loss of offices or other land uses, given that most of the Central Activities Zone Boroughs have policies that protect nearly every land use? This point is potentially challenging for the CoL, given the policy objective of not seeking to diminish and prejudice the business function of the City.

We expect there may be more pragmatism in making the case for changes of use which may conflict with land use policies, especially when this leads to greater retention of buildings. What we do not want to see happen, is Local Authorities seeking to retain land uses in buildings that are not suitable any longer for that use.

We will be keenly watching the decision taken by Michael Gove to "call-in" the Marks & Spencer Oxford Street scheme and we expect the outcome of the public inquiry will set the standard for how heritage, carbon, sustainability and regeneration is balanced in decision making. The GLA's Stage 2 **Addendum response**² to the scheme specifically notes that *"neither Policy S12 nor Policy S17 of the London Plan prohibits demolition, with the WLC Assessments LPG and Circular Economy LPG requiring priority consideration to be given to the retrofitting of buildings."*

We hope that the outcome leads to proper, integrated policy making rather than uncertainty.

² [GLA/2021/1040/S2/02](#)

Disclaimer & Copyright

Gerald Eve's Planning Update is a short summary and is not intended to be definitive advice. No responsibility can be accepted for loss or damage caused by any reliance on it.

© All rights reserved. The reproduction of the whole or part of this publication is strictly prohibited without permission from Gerald Eve LLP.