

One Battersea Bridge

Planning Submission Ref: 2024/1322

Whole Life Carbon Review

on behalf of

Thameswalk Residents Association Limited

19 June 2024

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1.0 Executive Summary:

There are several key issues with respect to Whole Life Carbon and the proposals for this site:

1.1 The Existing Building: The existing Glassmill building (below) is still occupied and functioning. It was completed in 1984 and could be upgraded with a comprehensive refurbishment/retrofit that would improve its environmental performance, and its architectural treatment. The glazed facade may well be at the end of its life, however there are many options for replacement that could be considered.



Key Question: Why is a building that is only 40 years old proposed for demolition? This is an entirely unnecessary waste of resources and a generator of carbon emissions and waste.

The planning submission states that the existing building is of 'poor quality' and cannot therefore be refurbished. This has not been proven, with no evidence provided to support this claim. It is a statement made to support the commercial benefits of demolition. A refurbishment could provide a completely new, architecturally attractive, environmental efficient facade.

The DAS Section 2, p14, 'The Existing Building' lists a range of issues that form a critique in support of the contention that the building is 'or poor quality'. These issues can all be addressed with a retrofit/refurbishment approach, ie they are not reasons that support demolition and new build.

Existing Building not properly considered for retrofit.

1.2 Planning Policy: There is ample planning policy at UK National, GLA and Wandsworth levels that prioritise the reuse and retrofit of existing buildings and call for this to be comprehensively examined. However in the submission there is only a single page review of a retrofit approach (DAS p29).

GLA Policy SI2 states: “Confirmation that options for retaining existing buildings and structures have been *fully explored* before considering substantial demolition”. **This has not been done.**

The submission does not comply with the GLA decision tree (see 2.7.8 below). The review provided is cursory at best and has arguably been ‘designed to fail’. With greater imagination the issues listed concerning ground level permeability etc could be resolved. This option has not been considered seriously and should be examined in much greater detail to comply with policy. (See Section 2 below).

UK, GLA and Wandsworth Planning Policies disregarded.

1.3 The Submissions Whole Life Carbon Report: claims to be following the latest ‘RICS Whole Life Carbon Assessment for the built environment 2023 version’, but then goes on to provide quotes that purport to come from this document but do not. Items such as demolition of the previous building have not been included within the assessment although it should have been.

Misleading use of references.

1.4 Appendix A: GLA Reporting Spreadsheets are unreadable. These spreadsheets (“WLCA GLA ASSESSMENT SPREADSHEET” and “GLA CARBON EMISSION REPORTING SPREADSHEET”) have been provided on the Planning Portal. They provide the detail of the assessment calculations. The following are three typical sample pages from these Spreadsheets downloaded from the planning portal. They are unreadable and show partial and incomplete information.

Year	kWh/m²	kWh	kWh/m²
OVERALL ENERGY CONSUMPTION AND CALCULATIONS			
Total kWh		26,791	

Incomplete/unusable submission information.

1.5 Appendix A: As these spreadsheets are incomplete and unusable, it has not been possible to fully review the figures provided. Therefore, the assessments provided with the submission should be treated with significant scepticism.

Assessments potentially incorrect, incomplete information.

1.6 Optimistic and potentially inaccurate figures: Tables 3, 4, 5 appear to be inaccurate and incorrect, and are therefore misleading.

Assessments potentially incorrect, and misleading.

1.7 Optimistic and potentially inaccurate figures: The submitted proposal appears to be fairly standard in construction terms, yet the assessment results are not only within GLA Benchmarks but are also suspiciously low with respect to in-use embodied emissions, e.g. they are a quarter of the Benchmark figure. This is highly unlikely to be correct.

All assessment figures should be re-evaluated and peer reviewed as called for in the RICS WLCA Standard 2023.

1.8 Circular Economy: The most obvious 'circular' action which is to retain and reuse the existing building has not been fully addressed. There are statements claiming the existing building cannot be reused, but there is no supporting evidence. The decision to demolish contradicts the many policies outlined in Section 2 below favouring reuse and retrofit/refurbishment. **Failure to comply with UK, GLA and Wandsworth policies.**

1.9 Carbon emissions impact: It should be noted that in overall terms the demolition of the existing building and the construction of a 33 storey tower will have significantly greater carbon emissions impact compared to a refurbishment

of the existing building. This is against the UK's trajectory to Net Zero, unacceptable in a climate crisis.

2.0 Planning Policies that prioritise Retrofit - International, UK National, GLA and Wandsworth. The submission fails to follow the following policies:

2.1 International: The Buildings and Climate Global Forum of 8th March 2024 (Declaration de Chaillot), This was a Ministerial Declaration signed by 70 Countries including the United Kingdom. This declaration included:

2.1.1 *Clause 5.2.2 “Prioritising the reuse, re-purposing and renovation of existing buildings and infrastructures to minimize the use of non-renewable resources, maximize and energy efficiency and achieving climate neutrality sustainability and safety with particular focus on the lowest performing buildings”,*

2.1.2 *Clause 5.2.3 “Prioritising integrated comprehensive design, retrofitting building structures and envelopes, and consistency between conception, construction and operation to ensure energy efficiency and a healthy indoor environment through passive means and, when needed, installing only highly energy efficient systems, equipment and appliances”.*

2.1.3 *Clause 5.2.4 “Prioritising on-site assets, recycled and end-of-life use, local, sustainable, bio/geo-sourced, low carbon, energy efficient materials, products and components ensuring easy maintenance and repair for life extension, aligned with circular economy, eco-design and sufficiency and waste prevention principles, enhancing carbon balance through storage and absorption in building materials”.*

2.2 UK National: In support of the UK's downward carbon emissions trajectory, the 'Industrial Decarbonisation Strategy March 2021':

https://assets.publishing.service.gov.uk/media/6051cd04e90e07527f645f1e/Industrial_Decarbonisation_Strategy_March_2021.pdf

2.2.1 Action 5.5: Page 64, States the following: *“In addition to improving energy efficiency within industry, using the raw materials we rely on more efficiently is critical to reducing emissions. Increasing resource and material efficiency in practice means keeping products and materials in circulation for longer through circular economy approaches such as reuse,*

repair, recycling and reducing the quantity of materials used within manufacturing. This transformative approach, tackling both consumption and production related efficiency, reduces emissions at all stages of a product's lifetime."

2.2.2 Annex 4 Page 136: *"Resource efficiency is achieved by using raw materials more efficiently in production and from end-users consuming new products more efficiently. This may involve keeping products and materials in use for longer through reuse, repair and recycling, and also reducing the level of material used in the products that we produce.*

2.3 UK National: The UK Government's 'Net Zero Strategy: Build Back Greener', Department for Business, Energy and Industrial Strategy (BEIS) 2021: <https://assets.publishing.service.gov.uk/media/6194dfa4d3bf7f0555071b1b/net-zero-strategy-beis.pdf>

2.3.1 Technical Annex, Item 81 states: *"Resource efficiency policies will have a net benefit to pressures on raw material availability, reducing raw material demand and consumption..... Moving towards a circular economy, where priority is placed on extending the lifetime and lifecycle of a product through sharing, reusing, repairing, redesign and recycling, is likely to have a positive impact".*

2.3.2 Resources and Waste, Item 47 p180. states: *"Government is committed to moving to a more circular economy. This means keeping built assets, products, and materials in use for longer, including through repair and reuse, and making greater use of secondary materials, thus reducing waste arising."*

2.3.3 Resource Efficiency, Item 47 p130. states: *"Resource efficiency measures reduce emissions from industrial processes by keeping products and materials in circulation for longer by way of reuse, repair, remanufacture and recycling as well as reducing material usage. These activities enable the retention of value, and in some cases the creation of new value for both the producer and customer, at a much-reduced environmental impact."*

2.3.4 Resource Efficiency Item 53 states p130: *"To realise the wider emissions saving potential of resource efficiency measures will require establishing frameworks which minimise virgin resource use and maximise recycled, reused, or remanufactured content."*

2.4 UK Parliament: In 2022 The Environmental Audit Select Committee (EAC) convened the inquiry: 'Building to net zero: costing carbon in construction'. <https://committees.parliament.uk/publications/30124/documents/174271/default/>
This report was presented to Parliament in early 2023. The following are extracts from this report:

2.4.1 Para 38: "*Retrofit and reuse of existing buildings, where practicable, should be prioritised over new build to conserve resources, minimise embodied carbon emissions, reduce demolition waste and deliver cost-effective solutions*".

2.4.2 Para 187: "*The evidence we received consistently recommended that retrofit and reuse be prioritised over new build in order to conserve resources, reduce waste, minimise embodied carbon emissions.*"

2.4.3 Para 189: "*In its submission to this inquiry the Government stated that it understood the importance of properly accounting for carbon, "which is why we are promoting the benefits of reusing and retrofitting ahead of demolition*".

2.5 UK National: The National Planning Policy Framework (NPPF) 2021, updated December 2023, https://assets.publishing.service.gov.uk/media/65a11af7e8f5ec000f1f8c46/NPPF_December_2023.pdf

Chapter 14:

2.5.1 Under 'Meeting the challenge of climate change, flooding and coastal change' Para 157 (previously para 152), states that: "*The planning system should support the transition to a low carbon future in a changing climate.....*".

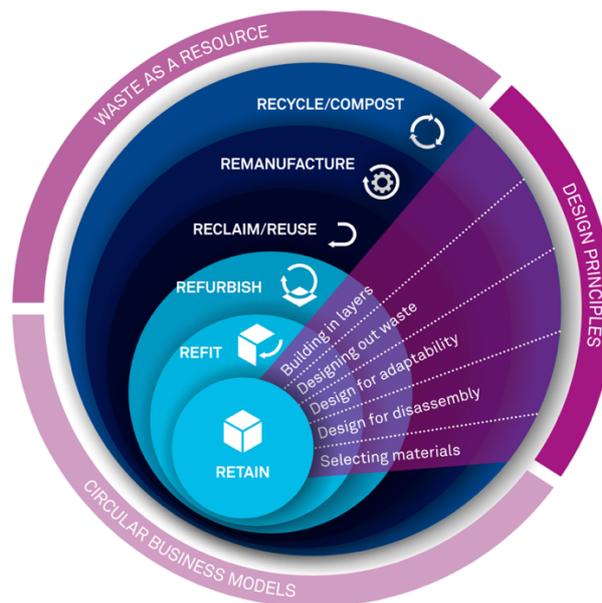
2.5.2 Further; "*It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings.*"

2.6 Local Authority, London (GLA):

London Plan: <https://www.london.gov.uk/programmes-strategies/planning/london-plan/new-london-plan/london-plan-2021>

2.6.1 Policy D3 at clause 3.3.12, p114 states: “*Figure 3.2 shows a hierarchy for building approaches which maximises use of existing materials. Diminishing returns are gained by moving through the hierarchy outwards, working through refurbishment and re-use through to the least preferable option of recycling materials produced by the building or demolition process. The best use of the land needs to be taken into consideration when deciding whether to retain existing buildings in a development*”. Fig 3.2 (below) Show that ‘*Retain, Refit and Refurbish*’ are the priority options.

Figure 3.2 - Circular economy hierarchy for building approaches



Source: Building Revolutions (2016), David Cheshire, RIBA Publishing ©

2.7 Key Policies GLA Policy SI2; Whole Life Carbon, and SI7 Circular Economy.

https://www.london.gov.uk/sites/default/files/lpg_-_wlca_guidance.pdf

https://www.london.gov.uk/sites/default/files/circular_economy_statements_lpg_0.pdf

2.7.1 Policy SI2 London Plan Guidance, Principle No.1 p4: “*Retaining existing built structures for reuse and retrofit, in part or as a whole, should be prioritised before considering substantial demolition, as this is typically the lowest-carbon option*”.

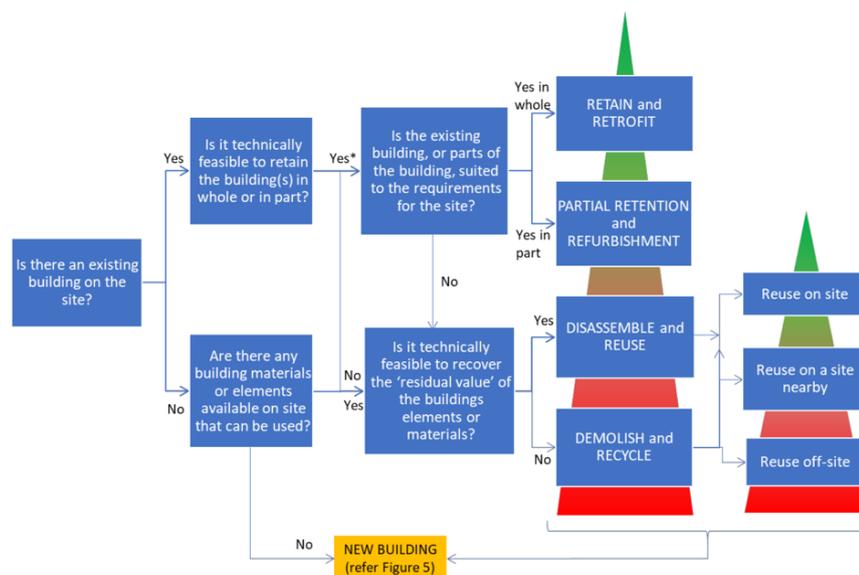
2.7.2 Policy SI2 London Plan Guidance – Whole Life Cycle Carbon Assessments, Item 3.1.2, Box 3, p24: “*Confirmation that options for retaining existing buildings and structures have been fully explored*”.

before considering substantial demolition, including incorporating the fabric of existing buildings into the new development”.

- 2.7.3 Policy SI2 London Plan Guidance – Whole Life Cycle Carbon Assessments,
- 2.7.4 Item 3.1.3, p25: *“If substantial demolition is proposed, applicants will need to demonstrate that the benefits of demolition would clearly outweigh the benefits of retaining the existing building or parts of the structure. Retention should be seen as the starting point; this will usually be the most sustainable option as it can make an immediate contribution toward the Mayoral objective of London becoming a zero carbon city by 2030, as well as reflecting the need to both move towards a low-carbon circular economy (set out in Good Growth objective GG6 – Increasing efficiency and resilience) and to push development up the waste and energy hierarchies (see Policy SI 2 – minimising greenhouse gas emissions; and Policy SI 7 – reducing waste and supporting the circular economy).”*
- 2.7.5 Policy SI2 London Plan Guidance Principle 1: *“Reuse and retrofit of existing built structures: Retaining existing built structures for reuse and retrofit, in part or as a whole, should be prioritised before considering substantial demolition, as this is typically the lowest-carbon option. Significant retention and reuse of structures also reduces construction costs and can contribute to a smoother planning process”.*
- 2.7.6 Policy SI2 London Plan Guidance: Table 2.1, p10, Principle 16: *“Circular Economy: The circular economy principle focuses on a more efficient use of materials which in turn leads to financial efficiency. Optimising recycled content, reuse and retrofit of existing buildings; and designing new buildings for easy disassembly, reuse and retrofit, and recycling as equivalent components for future reuse are essential”*
- 2.7.7 Policy SI7 London Plan Guidance, Item 1.1 What is a circular economy? Item 1.1.3, P5: The guidance explains how to prepare a Circular Economy Statement and *“also includes guidance on how the design of new buildings, and prioritising the reuse and retrofit of existing structures, can promote CE outcomes. Further, London Plan Policy D3 requires all development to aim for high sustainability standards, and to take into account the principles of the circular economy.”*

2.7.8 Policy SI7 London Plan Guidance: Circular Economy Statements: Item 2.4.1, page 11, states the following: “The decision tree (Figure 4 below) should be followed to inform the design process for the development from the outset. It should be informed by the pre-redevelopment and pre-demolition audits where possible (see section 4.6 for more information) and WLC assessment, with the outcomes from these aligning”. If this was followed the outcome would be retain and retrofit.

Figure 4: Decision tree for design approaches for existing structures/buildings



* With exceptions, refer to paragraph 2.4.4 below.

2.7.9 Policy SI7 London Plan Guidance: Circular Economy Statements: Item 2.4.2, page 12, states the following: “To follow the approach set out in Figure 3 (London Plan Policy D3 Figure 3.2, see para 2.7.2 above.) retaining existing built structures totally or partially should be prioritised before considering substantial demolition, as this is typically the lowest-carbon option”

2.8 Wandsworth Local Plan 2023-2038:

https://www.wandsworth.gov.uk/media/large/adopted_local_plan.pdf

- 2.8.1 LP10 Sustainable Design and Construction Para A:
- 2.8.2 Item 1: “Incorporate the London Plan’s circular economy principles at the start of the design process”. **Not achieved.**
- 2.8.3 Item 5: “Retain existing buildings and their embodied carbon in renewal and regeneration projects where this is a viable option”. **Not achieved.** The developer may argue that a retrofit is not financially

'viable'. This would be an erroneous claim as the retrofit approach has not been properly examined. Retrofit may well not be as profitable as demolish and new build, but this does not mean it is not 'viable'.

2.8.4 Item 6: "Re-use any demolished materials in-situ where practicable, in order to minimise the transportation of materials and waste, reduce the need for mineral extraction and reduce carbon emissions".

This has not been demonstrated.

3.0 Comments on the Whole Life Carbon Report included in the submission: The Report makes a number of claims that are incorrect and/or misleading.

3.1 The Report states in para 3.0 (p14) that: "*This assessment calculates WLC emissions in line with the draft guidance published by the GLA and the RICS PS 'Whole Life Carbon Assessment for the Built Environment 2023'*". This is fully correct as it is the latest version referred here as '**RICSPS2023**' and suggests that the report is using this version for the assessment. However this is not always the case.

3.2 In para 3.3.6 (p16) it is stated that: "*RICS guidance acknowledges that "Demolition works are often decoupled from new construction projects, hence the responsibility for any emissions arising from demolition is not necessarily solely attributable to the new build project". As stated within the guidance "New build projects assessed are considered to commence their development on a cleared, flat site for consistency purposes"*".

This is not correct: RICSPS2023 does NOT state this and requires prior demolition (A5.1) to be included within any assessment. This statement is from the 2017 version of the guidance NOT the 2023 version.

3.3 Demolition of the previous building has not been included within the assessment as required by the RICSPS2023.

Assessment figures under reported.

3.4 In para 3.3.7 (p16) it is stated that: "Guidance from RICS indicates 1.4 tonnes of CO₂e per £100,000 of project value".

This is not correct: RICSPS2023 does NOT state this.

3.5 In para 3.1 (p19) the following reporting Tables 3 and 4 are provided:

Table 3 Whole Life-cycle Carbon emissions model breakdown

Module	One Battersea Bridge	WLC Benchmark	Aspirational Benchmark
A1-A5 (excluding sequestration)	396 kg CO₂e/m² GIA	<850 kg CO ₂ e/m ² GIA	<500 kg CO ₂ e/m ² GIA
B – C (excluding B6 & B7)	74 CO₂e/m² GIA	<350 kg CO ₂ e/m ² GIA	<300 kg CO ₂ e/m ² GIA
A-C (excluding B6 & B7, including sequestration)	470kg CO₂e/m² GIA	<1200 kg CO ₂ e/m ² GIA	<800 kg CO ₂ e/m ² GIA

Table 4 Full WLCA results

Module	Category	Total kg CO ₂ e over 60 years	Total kgCO ₂ e/m ² GIA over 60 years (GIA=23,795 m ²)
A1-A3	Construction materials	7,110,894	299
A4	Transport	175,131	7
A5	Site Operations	2,140,118	90
B1	In Use	0	0
B2	Maintenance	237,950	10
B3	Repair	59,488	2.5
B4	Replacement/Refurbishment	1,533,540	64
B6	Operational Energy Use	12,433,609	523
B7	Operational Water Use	2,764,919	116
C1-C4	End of Life	277,829	12
Total		26,681,869	1,121
Carbon sequestration		-2,467,958	-104
Total		24,213,911	1,018
Total A-C (excluding B6 & B7)		11,185,901	470

The following points can be made in relation to the content of these two tables:

3.5.1 The figures for A1-A5 (396kgCO₂e/m²) are less than half the GLA Benchmark (850kgCO₂e/m²), and well below the aspirational Benchmark (500kgCO₂e/m²). Ordinarily this would be commendable however there are no obviously low carbon attributes to the design, which appears to be of standard construction. You would not therefore expect figures so far below the benchmarks. There are vague commitments to achieve these figures in Sections 5.0 ‘Carbon mitigation measures’, and 6.0 ‘Conclusions’, but these are not enforceable.

It is not possible to examine these claims in detail as the Appendix A, GLA reporting schedule is not readable as submitted.

Inadequate Information. (see para 1.4 above)

3.5.2 The figures for Modules B-C (excluding B6 and B7) (74kgCO₂e/m²) are so far below both the GLA Benchmark (350kgCO₂e/m²), and the aspirational Benchmark (300kgCO₂e/m²) to suggest either an arithmetical error, or an incorrect assessment. Again, there is nothing to suggest this design is exceptional in terms of life cycle attributes.

It is not possible to examine this in detail as the Appendix A, GLA reporting schedule is not readable as submitted.

Inadequate Information.

3.5.3 In Table 4 there is a figure of -104kgCO₂e/m² for 'Carbon sequestration'. For this figure to be counted it would have to include the carbon impacts of any timber at all life cycle stages ie, not just the sequestration benefits for modules A1-A5, but also for B and C.

It is not possible to examine this in detail as the Appendix A, GLA reporting schedule is not readable as submitted.

Inadequate Information.

3.6 In para 3.2 (p22) the following Table 5 has been included:

Table 5 Emission breakdown by life-cycle module and building element

	Carbon at completion (module A1-A5) (Tonnes)	Carbon over lifecycle (B2-B5) (Tonnes)	Carbon over lifecycle (C1-C4) (Tonnes)	Whole Life Carbon (Tonnes)	Carbon over lifecycle (D) (Tonnes)
Substructure	776	0	18	794	-555
Superstructure	5,239	217	147	5568	-895
Finishes	174	63	14	238	-1
Fittings, furnishings and equipment	0	0	0	0	0
Services (MEP)	1,233	1,244	11	17,686	-1022
External works	73	9	4	86	-22
Other site construction	1,931	0	0	1,931	0
Total tonnes CO ₂	9,426	1,534	194	26,384	-2,495
Total kg CO ₂ /m ² GIA	396	64	8	1109	-105
Total tonnes CO ₂ (inc module D)					23,889
Total kg CO ₂ /m ² GIA (inc module D)					1004

The following points can be made:

3.6.1 In the Table, you would expect the fourth column (Whole Life Carbon) to be the sum of the 3 columns to the left (A1-A5, B2-B5, and C1-C4). Apart from 'Substructure' where this is the case, this is not what

happens for the rest of the Table. The validity of the Table must therefore be called into question as there is no explanation for this.

Table to be fully re-evaluated, and third party verified.

- 3.6.2 The figures for Substructure, Superstructure and Services show a 'carbon over lifecycle (D)' respectively '-555', '-895', and '-1022'. Firstly Module D is NOT 'carbon over lifecycle', it is 'Benefits and Loads beyond the system boundary', and secondly what are these negative figures based on? There is no explanation.

Figures provided to be fully re-evaluated, and third party verified.

- 3.6.3 Services at practical completion are shown as 1,233 tCO₂e. The life cycle figure of 1,244 tCO₂e is almost the same, and this suggests that only one plant/services replacement is expected over 60 years. This is unrealistic, as you would expect at least 2-3 plant replacements over the period. This would significantly increase the figures.

Assessment figures to be re-evaluated, and third party verified.

- 3.6.4 At the bottom of Table 5 it states:
'Total tonnes CO₂ (inc module D) - 23,889 tCO₂'. You cannot include module D figures within the total. RICSPS2023 makes it fully clear that module D figures have to be reported separately and cannot be added to the total for A1-A5, B1-B4, C1-C4 (GLA Policy SI2 para 2.5.19).

Totally incorrect assessment, figures to be re-evaluated, and third party verified.

4.0 Comments on the Circular Economy Report included in the submission.

- 4.1 The Circular Economy Report includes the commitment to: "*Ensure that material and resource use is minimised as far as possible. Focus has been given to minimising the quantities of materials and other resources used, as well as ensuring materials will be sourced responsibly during construction*". There is no explanation as to how this will be achieved. Is this a legally binding commitment, probably not? The CE report does not explain how the "*quantities of materials and other resources used are minimised*". There are some vague commitments but nothing substantive.

Inadequate information.

- 4.2 The CE statement further states: "*It is not technically feasible to retain the building currently in situ. Given the age of the office building currently sitting on the site, the existing fabric/ building systems do not meet modern standards in*

terms of energy efficiency or performance and will therefore be removed from site prior to possession of the site for this development “.

This statement is not supported by evidence and is incorrect:

- The building was completed in 1984, and it is clearly technically feasible to retain and retrofit it. The reverse has not been proven.
- The statement is clearly designed to cast doubt on the existing building to facilitate its demolition.
- The building can most certainly be refurbished to meet modern standards of energy efficiency and environmental performance. This may well require a change of use, new more efficient facade, new plant etc which is not exceptional.
- The CE Report also states that: *“Refurbishment/retention of the building has been screened out of this report, due to the poor quality of the building”*. The supposed ‘poor quality’ of the existing building has not been demonstrated.
- The clear objective is to state the case for demolishing the existing building, but without supporting evidence or a proper examination of the retrofit possibilities. It should be noted that the building is currently occupied, and therefore cannot be uninhabitable. With a positive attitude this building could be refurbished.