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10th November 2017

Victoria Chase Indigo Planning Aldermary House 10-15, Queen Street, London EC4N 1TX

Dear Victoria

Re: 10-11, Kings Mews, London, WC1N 2ES – Energy Statement response to LPA feedback

I write with regard the proposed development at 10-11, Kings Mews, London, WC1N 2ES and the Energy Statement for this development produced by myself on behalf of Blewburton Limited. I have reviewed the most recent e-mailed feedback from the LPA and have offered responses (in italics) to their comments below.

- 1. Confirm if "Be Green" stage gives a 12% reduction as stated, or should this be amended to a 22% reduction (as I calculate it from 0.77 □0.60 tCO2) − The 12% figure is what is required from the incorporation of LZC technologies to meet the minimum offset requirements. 23% has been delivered through enhanced energy efficiency − we are taking the reduction from the baseline figure of 1.00tCO2, so no amendment to report required for this issue
- 2. Revise solar PV assumptions (e.g. reduce tilt), recalculate CO2 and % contribution to Energy Hierarchy reductions, state planning approach to solar PV as not mentioned. SAP software will not allow us to enter a degree of tilt other than horizontal, 30°, 45°, 60° or vertical, so 30° is selected as being the closest to the likely set up for the system
- 3. Seek greater solar PV capacity (if <20% Co2 reduction, see above). If demonstrated not viable, or if already providing >20% reduction (see query above), seek green roof around existing PV. Reason: overheating reduction, sustainable drainage, biodiversity The PV capacity stated allows for compliance with the London Plan requirements with regards carbon emissions and there is not a lot of additional roof space for PV, or, in my opinion, to justify the additional expense and design complication of installing a minimal area of green roof
- 4. Seek commentary of Cooling Hierarchy & possible revision.

- Ideally we seek additional passive measures to reduce overheating risks from "medium" to "slight". the exact products that could supply additional thermal mass have not yet been specified and will be reviewed when appropriate, glazing is as designed due to the deep nature of the units, heat distribution pipe work will be designed to be minimal and fully insulated and internal blinds will be provided
- Comment on assumption that all flats including ground floor & basement will have windows open half the time in hot weather *in periods of excessive heat (as in a heatwave), when occupants are in , they will have their windows partly open for cooling (these are not frequent events)*
- MVHA is acceptable if justified due to design air permeability, but seek rationale ventilation is required in all homes and given that the air permeability will be 3.00 or below, it is even more important and accordingly, a highly energy efficient product will be selected, as modelled at this stage
- 5. List key water efficient items and specifications contributing to 105 litre/day target for water use WCs are dual flush with 6/3l flush volume, bath overflow capacity of 165l, shower flow rates of 8l/min, basin taps flow rate of 5l/min, kitchen tap flow rate of 5.5l/min, standard allowance for dishwashers and washing machines

Additional requests for more information:

- 6. Seek details of the thermal bridging strategy. (Design performance is noted to be unexpectedly high) As detailed within the report, Accredited Construction Details will be used to deal with non-repeating thermal bridging issues, which is 'Best Practice' and it is proposed to go even further and use Hi-therm lintels, which is the most significant non-repeating thermal bridging issue, so there is not much else that can be done here and the issue is clearly being fully addressed
- 7. Request glazed area as % of facade. (From drawings, glazed vs wall area appears high in relation to design performance) (Note ENERGY PLANNING: GLA guidance on preparing energy assessments Mar 2016 "The glazing percentage of the buildings, expressed as the glazed area divided by the façade area (multiplied by 100), should be clearly stated within the energy assessment." 49.45%

Yours sincerely,

Ian Bacon Director