

Public Inquiry into

the Arcadia Development

Proof of Evidence

ENVIRONMENT AND SUSTAINABILITY

SUMMARY STATEMENT

Nick Woodward

Planning Inspectorate reference :

APP/A5270/V/09/2097739

London Borough of Ealing reference :

P/2007/4246

Name

1. My name is Nick Woodward, of 43 Castlebar Road, Ealing, now retired. I was formerly Fellow in Organisational Behaviour, Templeton College Oxford. I have lived in Ealing since 1949.

Introduction

2. PPS 1 was the first concern of the Secretary of State's call - in, particularly concerned with the design principles in relation to the site and its wider context. We concentrate on sustainability and environment, arguing that the application is inherently unsustainable by reason of the design principles making it difficult or impossible to meet sustainability criteria
3. (energy saving, pollution reduction, open space recycling, self-sufficiency). Pollution in Central Ealing is particularly serious, and the Arcadia proposal will make it worse.

Environmental Standards in Arcadia

4. The application displays minimum environmental standards, for a project due to complete in 2017, with significant environmental aspects incomplete, inconsistent or deficient. Evidence for this is contained in comments on energy strategy by the GLA (21.1.09).
5. In short, energy strategy, a major environmental concern has not been thought through, necessitating submission of a revised strategy as a condition. But detailed specification of requirements may entail redesign of architecture, facades, and other matters. The complexity derives from the design principles.

Environment - pollution and air quality

6. The applicant's ch 15 on Air Quality was written by Waterman Environmental, based on results of pollution modelling by CERC.
7. PPS 23, 2004 - ' LPAs must be satisfied that. the effects of pollution in and around the site are not such that the cumulative effects of pollution when the proposed development is added would make that development unacceptable'
8. Ealing UDP 2004,2.6 - 'Development will not be permitted where air quality objectives are not being achieved, unless the effects on people can be demonstrated as acceptable '

9. The serious exceedances in Ealing in 2007 are demonstrated in the 2008 LBE Air Quality Progress Report. Carbon dioxide contributes to global warming (little considered in this application), but the direct threats to health are ground level pollutants, including nitrogen dioxide (NO₂) and diesel particulates (PM 10s). These remain near ground level unless dispersed by wind. But high buildings tend to produce a canyon effect, inhibiting dispersion of fumes. Stationary and slow traffic is more polluting than free flowing traffic.
10. In Ealing the worst pollution hotspots are by the N Circular Road and Acton High St, where traffic is frequently stationary. From 2003 at NW Haven Green extra signalling and traffic lanes were introduced.
11. This raised pollution levels, already illegal, by 20%. This matters since LBE 21 .1.09 para 64 requires modelling of the north Haven Green junctions 'in the interests of the free flow of traffic along the surrounding road network'. However modeling will not generate a free flow of traffic without an increase in road capacity, will not resolve an already serious pollution problem, and could make it worse, as in 2003.
12. Savill, Bird and Axon (ch 14, Appendix) confirm that queues in and around central Ealing will increase, as a result of Arcadia, Crossrail and other developments. Pollution will be worsened by the canyon effect of the Arcadia buildings, to the East, West and South of the site, with queuing made particularly bad by the Springbridge access. This is a consequence of the design principles. Three monitored sites in central Ealing are already at twice the legal limit of annual NO₂ pollution. This is unacceptable (PPS23 above) and development should not be permitted (UDP 2004 above). The application should be rejected on these grounds alone.
13. Waterman quote the findings of the CERC model as showing the project as having little effect on pollution. The model excludes the cumulative impacts of other developments, but includes the assumption of about 10% traffic growth from 2007 to 2017, using figures provided by Waterman (source unacknowledged).
14. How does an increase in traffic over 10 years result in a miraculous reduction in pollution to acceptable levels? The answer appears in 15.58 - 'Air quality is predicted to improve over time as improved vehicle emission control technologies, impacts of Air Quality Action Planning and EU legislative requirements have an increased impact therefore local pollutant concentrations are expected to decrease over time and by the time the proposed development is operational and occupied in 2017'. The source (Dr Pangloss?) and quantification for this prediction is not given. These

optimistic assumptions were fed into the CERC model, resulting in a drop in all NO2 pollution . Two years have passed without discernible decrease in pollution levels

15. The CERC model is widely used and respectable, with some problem features in application to Ealing. But its use in this case is not. The validation test demonstrates grounds for rejection of its assumptions and findings, and some of its inherent features are problematic. Also it seems to be modelling Stage1 (referring to 704 flats and no visitor parking).
16. In addition serious pollution will result from covering the railway with fumes vented from 2 low level louvres, in addition to the car park fumes. Some low level apartments will have their windows permanently locked necessitating air conditioning (via the problematic GSHPs -79% for cooling). This is a consequence of the design principle.

Natural Environment and Biodiversity

17. The whole site will be built on, with some token architectural trees and bushes overshadowed and windswept. Natural England advocates a Mitigation and Management Plan, to replace the green corridor of the cutting (LBE21.1.09). No survey of the cutting nor of the brownfield wooded area adjacent to the path has been conducted. The overshadowing from the south cannot improve the environment for trees , plants and fauna on the Green. There is no attempt to conserve biodiversity, apart from token nesting boxes (location unspecified).

Sustainability

18. The BREEAM residential standard (BES5058) has been used in the following as a checklist.
 - 18.1 Renewal Energy and Energy Generation. The engineering challenge of providing heating and cooling for 7 towers in a constricted site, using separate sources of energy will require complex pipework and controls. GLA were not convinced of the viability of the sketchy proposals. If the GSHPs prove problematic air conditioning units may be required (on external facades). It is possible that considerable structural redesign will be required. But we, like the GLA, have no details.
 - 18.2 Water and Sewage. Rainwater harvesting and grey water recycling have not been considered .The design probably make this too complex. But it is not sustainable.

- 18.3 Waste Recycling. The car park will be used for waste disposal lorries. LBE current recycling practice includes 7 categories of household waste. High rise blocks create problems: residents will have to carry waste manually to recycling points, down the elevators, in a variety of containers provided by LBE. Can the car park cope? Will residents bother? The design principles make this unlikely.
- 18.4 Greenhouse Gas Emissions. No estimates are provided on the volume of CO₂, - understandable in the absence of an energy strategy. But these, together with car park pollution, are scarcely sustainable.
- 18.5 Self Sufficiency. No chance of 'grow your own', though window boxes and 220 balconies in this dense and shaded development may offer some opportunity. Ealing's allotments are remote and heavily used. No sustainability here, while facilities for education, leisure, health, open space are all off-site, and weakly covered by obligations to be included in S 106 agreements.

Conclusion

19. At the heart of the problems elucidated lie the 'design principles' - layout, height, massing, and scale - in a sensitive, constricted site bordered by three busy roads and the green.
20. Energy strategy is made necessarily complex (and unresolved): no natural open space or other social facilities on site: environmental initiatives are limited, compromised or rendered infeasible, while natural environment is excluded.
21. The worst aspect is pollution. The use of a pollution modelling exercise (severely flawed by the input assumptions) only produced apparently favourable outcomes by building in unjustified optimistic assumptions. In reality, traffic is heavy round the site and consequent pollution levels double the safe legal limit. This will be made worse by creating a tunnel over the railway (design principles again). Arcadia's canyons, the restricted access, and incremental traffic generated by the development (not to mention Crossrail and others) will worsen the traffic system in central Ealing, with consequent worsening of pollution levels.
22. This in itself justifies rejection.