

HAVANT BOROUGH COUNCIL

Town & Country Planning Act 1990

Consultation on Planning Application

MEMORANDUM

From:	Environmental Health	To:	Development Control
Our Ref:	CONS/19/02594	Your Ref:	APP/19/01101
EH Case Officer Extn:	44 6677	Date:	10 January 2020
DC Case Officer:	Daphney Haywood		
DC Case Officer Extn:	44 6513		
Application Number:	APP/19/01101		
Site Address:	Land East Of, College Road, Purbrook, Waterlooville		
Proposed Development:	Hybrid planning application comprising; full planning application for the erection of 130 dwellings with the creation of new access onto College Road, landscape, drainage, car parking and associated works; and outline planning application for up to 650 dwellings, community and nursery facility (use class D1 and D2), retail unit (use class A1), public open space, landscaping, diversion of public right of way and associated works and infrastructure.		

Observations / Comments:

I have reviewed the application documents relating to Contamination & Ground Hazards, Drainage, Transport Assessment & Mitigation, and Air Quality (and Dust) Assessment. My colleague, Charlotte Adcock has reviewed this application from an 'amenity and nuisance' perspective, and I understand has provided comments under separate cover.

Summary of comments

- The site is associated with a non-trivial UXO/UXB risk, for which the submitted reports provide mitigation recommendations. This could be dealt with by means of a specific condition, or by adjustment of the wording contamination conditions. Wording is suggested for both, it may be helpful to amend the wording of 'recommended condition 3', if 'optional condition 1' is preferred to address this risk.
- The site is subject to localised contamination risks, represented by discrete areas of fill / disturbed ground, confirmed by non-intrusive site investigation. Conditions are recommended to manage that risk, and recommended wording allows a flexible approach to development phasing.
- The transport assessment may under-represent travel demand in a Southbound direction on College Road / Crookhorn Lane. These comments support (on air quality grounds) for HCC's request for enhanced shared pedestrian / cycle facilities south of the site access
- It is recommended that the provision for electric vehicle charging, and for cycle storage, be clarified prior to granting of consent (to be included as integral elements of the approved scheme)
- The overall conclusions of the air quality assessment (threshold approach & exposure assessment) are broadly agreed, but it is noted that no specific design response is offered in relation to emissions offsetting. Recommendations for design enhancements are

recommended.

- The travel plan is agreed to be broadly appropriate. Some recommendations are made with respect to capturing 'all purpose' trip modes within the baseline, and in respect of promoting flexible working.
- No material comments are offered in respect of drainage / SuDS & Pollution Risk.

Ground Conditions - Unexploded Ordnance (UXO) & Bombs (UXB)

A reasonable proportion of anomalies identified were represented by features with estimates volumes between 100 & 1000 litres, present between estimated depths of 4.5m & 6.0m below ground level (the limit of detection). These volumes and depths are not inconsistent with the (size / penetration-depth) range expected for UXB of hostile forces origin. The frequency / number, and scale of anomalies are however too great to be credible that these should be regarded as 'high likelihood UXB related', but there remains a risk is that UXB could be present within the 'noise' of unrelated anomalies.

There has been no apparent analysis / screening to identify target anomalies for investigation - the 25% verification undertaken could be of relatively low value if selected for verification the easily accessible (e.g. shallow, concentrated) anomalies that are most likely to be associated with made ground.

The physical UXO anomaly check did identify 'military related scrap metal' (e.g. armour plate), and a hand-grenade associated with an area of suspected early 1960's fill (former pond). Given this, the conclusion med/high risk is considered to be appropriate.

Follow-up work within Phase 1 area did not identify further finds, and provides several examples which indicate that depth & volume estimates (from Geo-Phys.) have wide margin of error.

Examples exist of >200L barrels presenting as small targets of <10L volume (i.e. 'small end' presenting as 'manhole cover'), as well as coiled barbed wire presenting as a large target >500L, and of linear targets estimated at >4m depth being identified to be fallen fencelines.

The Final conclusion was that 'no UXO/UXB likely to be present in top 5m (in the phase 1 area). This implies the limit of excavations, but the report does not specifically describe the limits of the intrusive work, and does not in fact confirm the depth at which targets were identified.

No risk assessment is presented for the expected penetration depth or target size for common UXB, and the report is heavily reliant upon the physical target check. It would be reasonable to conclude that focus of the assessment report was domestic Anti-Aircraft shells and small munitions, and not UXB. As a result, it is considered reasonable to conclude (given the proximity of credible domestic targets) that there remains a credible UXO/UXB risk at the site.

Any UXB/UXO present would be difficult to identify from the 'noise' of the general-waste targets identified within the geophysical survey, and so this risk is probably best dealt with by diligent observance of a watching brief during groundworks, in line with recommendations at 4.1 & 4.2 of the KW4917/26 report.

Principally UXO/UXB is a construction risk / health and safety issue, but UXB is recognised to pose a potential (low likelihood / high consequence) risk to an overlying sensitive landuse post development. It may be appropriate to include provisions within contamination requirements to make unequivocal the expectation of awareness raising and reasonable surveillance.

It should be noted that the 'Area A' (subject to UXO clearance certification) identified within the KW4917/26 report appears to correspond to the Scheduled Ancient Monument-, and

development Phase 3 area-, and not to the area where detailed planning consent is being sought. 'Area A' similarly doesn't appear to correspond to the area where the anomaly identification (screening) exercise identified the item of small munitions (area 13, development Phase 1 - area of suspected fill).

It is unclear whether the recommendation to undertake similar clearance of development phases prior to commencement should be taken to constitute a proposal or not, and this lack of clarity is likely to mean that including the UXO reports in the list of approved documents would be insufficient to secure UXO clearance, and it is likely that a suitable condition will be required *if the Council considers it necessary to ensure greater protection than that which could be achieved by addressing this issue under the contamination conditions*. Suggested wording below;

[Optional condition 1] Mitigation of UXO & UXB Risk

"Reasonable efforts shall be made to physically confirm the status of all previously un-investigated anomalies identified within the MACC International report ref; KW/4917/16 dated 19/10/2017, in accordance with the recommendations of paragraphs 5.1 & 5.2.

Prior to the commencement of construction of any part of the development approved by this Planning Permission, a summary report which confirms the nature of the work and the actions taken upon any significant discoveries, shall be submitted to- and approved in writing by- the Local Planning Authority

If, during development, any suspected historic ordnance (small munitions [UXO], or bombs, [UXB]) is found to be present; no further development shall be undertaken until the object has been assessed by an appropriately qualified person, appropriate actions have been taken to remove or make safe the object, and the Local Planning Authority notified.

All groundworks contractors shall be informed of the elevated UXO/UXB risk, and shall maintain appropriate vigilance & caution in respect of anthropogenic inclusions encountered during all relevant below-ground construction activities (e.g. excavations for foundations, installation of buried services & SUDS)"

Reason: *Site specific investigation has confirmed a medium/high UXO/UXB risk status at the site, and an item of UXO has been identified during preliminary work. Geophysical surveys have identified anomalies with estimated volumes / depths consistent with UXB. The purpose of this condition is to ensure that the potential associated risk to both groundwork personnel & future residents is appropriately managed, having due regard to policies DM10 of the Havant Borough Adopted Core Strategy [2011] and DM17 of the Havant Borough Local Plan (Allocations) [2014]*

Contamination

The UXO Geophysics survey has identified several high-density groupings of anomalies which (with reference to records held by Havant Borough Council-) are considered likely to be associated with known / suspected filled land or general made soils (e.g. those identified within MACC investigation areas 4-8, 13 & 15).

Fill dates for these features are thought to post date 1960, and so any mass material is unlikely to represent UXO of domestic or visiting forces origin, and is more likely to represent informal landfill of general wastes (soils, construction / demolition wastes and scrap). Some features were former surfacewater ponds, so a potential remains for UXO (small munitions) to be present as a result of domestic / visiting forces use (as confirmed by the discovered item, discussed above).

Geophysics from MACC Area 14 also shows a concentration of anomalies in an area of apparent disturbed ground, possibly corresponding to an area of previously unrecorded fill. Linear anomalies are also identified (e.g. area 13) which don't appear to have a 'ready' explanation (such as any road re-alignment, ditching, or any mapped former munitions transport rail system etc.).

The previously-submitted contamination assessment report (RSK, 28720 R01 (01), October 2016) does not appear to have advanced trial holes which intersect either the suspected areas of made soils, or necessarily any of the additional possible areas of fill identified by the MACC fieldwork. The RSK report also appears to have identified one further area of previously unrecorded made ground to at least 1.2m depth, which is of uncertain significance (elevated gas results, acceptable soil chemical results, and representing a single sample of a feature of unknown scale and consistency of character).

The previously identified potential filled ground and the further areas of disturbed- / worked- / made- ground identified by both the UXO geo-physical investigation & BH7 of the RSK general site investigation-; all coincide with contamination sensitive landuses (residences with private gardens, or sensitive community uses).

Given the lack of information available in respect of these features, that one such feature has been associated with military items, and in consideration of the nature and scale of these development proposals - it is not considered unreasonable to require that targeted site investigation be required in the areas identified by the RSK / MACC reports as being likely to represent deposited soils and/or waste materials.

This will ensure that the general character of these soils does not pose a risk to occupants of the overlying properties (or any other end-users, if materials are relocated during the course of development).

Significant features exist both within the outline consent area, and the phase 1 area for which detailed consent is being sought. I have no concerns about the requirements of conditions seeking to secure confirmation of soil quality prejudicing the deliverability of the development, and as such I am quite content for this to be addressed by means of a suitable suite of planning conditions. Suggested wording as follows;

[Recommended Condition 1] Contamination (Bespoke– omitting EDS, based upon submitted EDS proposals) [1]

Prior to the commencement of any specific phase of development approved by this planning permission (other than demolition, site clearance, or any other date or stage in development as may be agreed in writing with the Local Planning Authority), an assessment of the nature and extent of contamination at the site, whether originating from within or outside the curtilage, shall be submitted to and approved in writing by the Local Planning Authority.

The assessment may comprise separate reports as appropriate, but shall be undertaken by competent persons and unless specifically excluded in writing by the Local Planning Authority, shall include;

- 1. A proportionate intrusive site investigation to provide sufficient data and information to adequately identify & characterise any physical contamination associated with the likely areas of fill / made ground identified by the MACC International UXO non-intrusive survey ref: KW/4657/08r, dated 30/02/2017, and to inform an appropriate assessment of the risks to all relevant receptors.*
- 2. The results of an appropriate risk assessment based upon (1), and (only) where unacceptable risks are identified, a Remediation Strategy that includes;*
 - appropriately considered remedial objectives,*
 - an appraisal of remedial &/or risk mitigation options, having due regard to sustainability, and;*
 - clearly defined proposals for mitigation of the identified risks.*
- 3. A verification plan providing details of the data that will be collected in order to demonstrate that the works set out any Remediation Strategy required under (2) are complete, identifying any requirements for longer-term monitoring of pollutant linkages, maintenance of*

engineered mitigation measures, and arrangements for contingency action.

All elements shall be adhered to unless agreed in writing by the Local Planning Authority.

Reason: *Having due regard to policies DM10 of the Havant Borough Adopted Core Strategy [2011] and DM17 of the Havant Borough Local Plan (Allocations) [2014], Made Ground is present at the site which could pose a risk to future occupiers of the site.*

[Recommended Condition 2] - Verification (Standard) [2]

*Prior to the occupation of any relevant part of the permitted development, any verification report required in accordance with **condition [1]** shall be submitted to and approved in writing by the Local Planning Authority.*

The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan, and must demonstrate that site remediation criteria have been met. Where longer-term monitoring of pollutant linkages is identified as being necessary, the report shall clearly set out plans for monitoring, provision for maintenance, relevant triggers and contingency actions (a "long-term monitoring and maintenance plan").

The long-term monitoring and maintenance plan shall be implemented as approved.

Reason: *Having due regard to policies DM10 of the Havant Borough Adopted Core Strategy [2011] and DM17 of the Havant Borough Local Plan (Allocations) [2014], Made Ground is present at the site which could pose a risk to future occupiers of the site.*

[Recommended Condition 3] - Contamination Watching Brief

"Reasonable vigilance for the presence of contamination and soil hazards shall be maintained during all groundwork. In the event that any suspected contamination (obviously contaminated / stained or discoloured soil / groundwater) or any buried waste material is encountered (especially metallic objects which might comprise barrels, tanks, vehicles or ordnance), works in affected areas of the site shall cease until the Local Planning Authority has been notified of the discovery, and a scheme to deal with the risks associated with the suspected contamination has been submitted to- and approved in writing by- the Local Planning Authority.

The scheme may take a proportionate approach to the degree of formality adopted and may comprise separate results / reports / statements as appropriate, but unless specifically excluded by agreement shall include;

- *Investigation in the vicinity of the suspect material, sufficient to characterise it's nature, likely extent & mobility,*
- *An appropriate assessment of the risks to all receptors that may be affected, based upon 1), and;*
- *Where potentially unacceptable risks are identified by 2), a Remediation / Risk Management Strategy that includes appropriately considered remedial objectives and clearly defined proposals for achieving these, having due regard to sustainability*

All investigation, assessments & other actions required by 1)-3) above (and B, below) shall be undertaken by competent persons, and the findings presented in a written format. The scheme shall be implemented as approved.

Prior to the occupation of any relevant part of the permitted development, EITHER of the following shall be submitted to the Local Planning Authority;

- A. *A statement confirming that no suspected contamination was identified during development, OR;*
- B. *Documentation in accordance with 1)-3) above; together with a Verification Report (where appropriate) demonstrating that remediation objectives have been met.*

Reason: *Having due regard to policy DM10 of the Havant Borough Local Plan (Core Strategy) 201,*

DM17 of the Havant Borough Local Plan (Allocations) [2014] and the National Planning Policy Framework, Made Ground is present at the site which could pose a risk to future occupiers of the site, and there is an elevated risk of soil hazard posed by buried waste materials of military origin (UXO/UXB) that pose a risk to site construction workers or future occupants"

Transport Assessment (Environmental Statement, Ch.5) - Air Quality

The transport assessment is material to the assessment of environmental impacts in that it underpins the assessment of the adverse air quality impacts associated with transport emissions, and the positive air quality impacts associated with the adoption of sustainable and active travel modes by future occupants. Comments here will focus on these aspects. Highways impacts in areas where relevant 'air quality sensitive' receptors are absent will not be addressed here, it is expected that highways consultees will pick up any issues arising.

Development Traffic Distribution

It is understood that the geographical extent of- and the trip rates adopted for- the assessment were agreed with HCC prior to completion of the report.

I have no material comments on these aspects (i.e. the scope of assessment is agreed to be broadly appropriate, and sufficiently broad as to include all air quality sensitive receptors that I would expect), however I would highlight that the model used to distribute the new traffic to the existing road network is based entirely upon travel to work census data, and does not allow for any divergent routing associated with travel to educational, retail or leisure facilities. This is evident by the lack of weighted contribution allocated to existing use patterns (as would be appropriate for a retail location), and the 'nil' development trips allocated to the B&Q access road, or ASDA access during peak hours.

With reference to the baseline flows, these junction arms do receive a proportion of the baseline traffic flow, and I see no reason to anticipate that a similar proportional demand would not be associated with the proposed development. This may or may not be material to the capacity assessment.

The annualised road link 'baseline' / 'development contribution' traffic estimates utilised air quality assessment reflect the peak period approach (travel to work only), and in effect, assume that no residents of the proposed development will either work or shop at any of the retail outlets served by these road links - clearly unrealistic. It also raised the risk that other journeys which have the potential to contribute to significant 'inter-(commuter-)peak' flows (e.g. travel to school / college) are similarly not accounted for.

It should be noted that the assessment of air quality is sensitive to 'overall average distribution' (AADT), and as a result of the basis / purpose of TA, will therefore incorporate significant uncertainties associated with both with development traffic flow allocations, and with baseline interpeak flow characteristics not accounted for within the commuter-peak turning count surveys.

With respect to distribution from the site access (binary direction choice from single access point), it is noted that Table 17 (automatic traffic count information) suggests a strong Southbound bias in the PM peak. This balance is to some extent reflected in the overall flow bias (representing 55%/45% northbound/southbound, respectively on a 24hr basis).

Just 21% development-generated traffic is estimated to travel in a Southbound direction from the site entrance - amounting to less than half the proportion evident within the baseline evidence. The rationale for allocating the development traffic to the local road network in a way which departs so significantly from the existing distribution is unclear, and may require more robust justification. The distribution assumed is likely to represent a worst-case in terms of air quality impacts, but may undermine the impact assessment at the Crookhorn Lane / Portsdown

Hill Road junction, and underestimate southbound travel demand from the site by sustainable and active travel modes.

Impact on Pedestrian / Cycle infrastructure, and Pedestrians / Cyclists

The environmental statement concludes an overall broadly neutral impact on pedestrian / cycle accessibility, with some negative impacts, but 'slight beneficial' impacts due to improved crossing facilities (broadly agreed).

It is noted however that short term impacts could be much greater (e.g. during construction post-occupation of phase 1), unless proposed ped/cycle is delivered relatively early in the construction programme. I have not identified any specific recommendation in respect of timing of delivery of these elements.

Poor initial experience of attempting journeys by sustainable and active travel (ped / cycle / public transport access) risks prejudicing residents against these modes in future, and so it is considered to be important to ensure that infrastructure associated with sustainable and active travel is implemented early in the build programme.

Impact on Road Junctions, Mitigation

It is noted that Table 19 contains a typographic error, transposing Eastbound & Westbound results relative to those presented in Appendix P (Appendix P likely to be correct). Consideration of impact at the Crookhorn Lane / Portsdown Hill Road junction should ignore Table 19 in favour of Appendix P. This is likely only to be material to the highways capacity assessment (is not likely to be material for local air quality).

I also note that Stakes Road / Purbrook Way Junction assessment predicts a 2029 baseline average am peak queue on Stakes Hill Rd. which substantially exceeds the baseline average queue, and that development traffic is likely to contribute significantly to both over-capacity demand & queue length on this junction arm. Predicted queue's equate to just short of a kilometre, (~55% total road length, representing 300% 2019 baseline queues). Examples of residential property exist within 5m of the kerbside (e.g. no. 262 & 91. Stakes Hill), representing a material Air Quality concern.

Section 8.19 of the TA report acknowledges both that the capacity problems at this junction are systemic / extant, and that this notwithstanding, the development contributes materially to this extant problem. The mitigation proposals outlined in Section 9 of the report are agreed to be necessary, and re supported.

I would broadly agree the conclusion of 5.7.9 (Ch. 5, ES) that assisting to solve 'systemic' problems with the existing local road network will result in generally more efficient network function, and as a result will reduce transport related emissions of all types from the local road network (i.e. slight, beneficial and permanent impact).

Assessment of routes to school by Active Travel Modes (Pedestrian / Cycle)

I would agree that the site is sustainably located with respect to access to educational facilities, with Primary-, Specialist-, Secondary- and Further- educational opportunities accessible via active travel modes within reasonable walk & cycle distance (and times).

Cycle Network

The cycle network report (at 3.20) rejects the suggestion of HCC that a shared footway / cycleway should be provided to the South, along College Rd. - stating that '*with the exception of the college, all local facilities are provided along Crookhorn Lane, served by suitable cycle infrastructure*'.

The soundness of this argument is unclear to me. Destinations to the South are likely to include the Farlington / Drayton / Cosham retail and employment facilities - these mostly fall within 5km of site (and so within recommended cycle distances), making these relevant destinations for both employment and retail trips by active travel modes.

I would support HCC suggestion that provision of this section of off-road cycleway should ideally be provided, ideally serving to link with existing the off-road hard surfaced cycle infrastructure on the signposted cycle link via Gillman Rd. & A2030 to Portsmouth, thereby delivering a material improvement to the NCN-222 / NCN-2 link & supporting the selection of active travel as a principle mode of travel for employment and retail trips by residents of the proposed development.

Travel Plan

It is acknowledged that the travel plan accounts for / includes the proposals for creating a link to the Scratchface Lane Bridleway, improved pedestrian facilities (including new footpaths and crossings) and additional bus stop options to make access possible within the 400m recommended maximum (from site centre, on foot). These are all considered to be positive steps in support of sustainable & active travel, therefore similarly representing positive steps in mitigating the adverse impact of the development on local air quality (e.g. through the increased demand for travel from a new residential 'journey origin').

The travel plan is fairly generic in nature, and is broadly appropriate. There are a few minor observations which it might be helpful to make, *summarised below*;

- The baseline modal split is based upon commuter trips (travel to work census data) only. In order to make 'like for like' comparisons to monitor the success of the plan, it would be recommended to make efforts to derive a baseline modal split from the first survey (to be undertaken at 100% occupancy of phase 1) which better reflects the balance of the trips undertaken by residents for 'all purposes', and not just 'travel to work'.
- With reference to the example Residents Travel Survey (Appendix F), I note that it principally relates the 'main mode of travel', and does not readily distinguish between different modes for different purposes. This risks missing important journeys, and important mode-shift progress on 'important non-primary' journeys. The content of Question 7 could be amended to provide useful data on non-primary journeys, or alternatively, the TPC could encourage completion of a survey by all occupants of a property (so that the travel habits of different occupant types are accounted for, alongside their principal trip purposes)
- The mode-shift targets presented in Table 7 are fairly standard, and being based upon a travel to work baseline, may not fully reflect the potential of the site for sustainable & active travel, to educational and retail facilities in particular.
- The Residential Travel Plan includes provisions for supporting sustainable private car use (see 6.15, 6.16), but I would highlight that no design response to emerging policy IN3 (provision of electric vehicle charging points) is included within the scheme.
- The Residential Travel Plan includes provisions for 'encouraging' Home / Flexible / Smarter- Working (see 6.17, 6.18), by informing residents of 'initiatives'. This provision is supported, and it is assumed that appropriate physical data services / infrastructure will be provided in accordance with local policy in order to facilitate home working. I would however recommend that the meaning of 'initiatives' be construed to include providing information on the rights of workers to request flexible working (e.g. signposting government guidance on the 'right to request' resources to support home working)
- It is considered that monitoring of residential travel habits by means of two distinct survey methods is very good practice, and reduces the risk of poor response rates undermining the quality of progress monitoring. It is noted however that no minimum

response rate target is proposed for the residents survey - relying on an interpretation of 'acceptable response rate'. I have seen extremely low rates applied to response rates - and I would advocate resistance of rates which fall below those typically advocated by HCC.

- I note that 7.17 addresses s106 provisions, and provides for a bond to facilitate HCC monitoring, oversight and intervention (in the event of poor progress). This is welcome, and I would further recommend that HCC communicate the outcome of plan monitoring with Environmental Health, for the purpose of Air Quality reporting.

Parking

I note that the scheme plans / supporting documents do not provide any specific proposals for delivery of appropriate cycle parking, providing elevation drawings for a cycle store to serve flats / apartments only.

The cycle storage provided in accordance with the local SPD should be confirmed to be;

- a) on ground level, and
- b) provided with convenient access to the street without need to bring cycles through living accommodation (i.e. if provided in garden sheds, direct access should be provided from the rear garden to the property frontage, or other street access).

If this cannot be secured as a specific proposal present on an approved document, it may be necessary to secure by condition. I would recommend the former.

Air Quality Assessment (Environmental Statement, Ch.6)

Construction Impacts

The fugitive dust control mitigation measures outlined in Table 6.18 are agreed to be appropriate for control of emissions, and should be adequate to significant adverse air quality impacts if implemented & diligently observed. It is expected that these proposals will feature as committed provisions within the Construction Environmental Management Plan.

Operational Phase

The Air Quality assessment presented as Chapter 6 of the Environmental Statement concludes that exceedance of any relevant Air Quality objectives within the site is unlikely. Insofar as the protection of future occupant from unacceptably poor ambient air quality associated with transport - it is agreed that no specific protection measures are required (e.g. under policy DM18, or emerging policy E22).

The assessment also highlights that the screening assessment for the ecological impacts of the development's contribution to local emissions to air may be taken as justification for implementation of further mitigation of air quality impacts. It is considered that the ecological screening assessment serves to enhance the case for 'emerging policy E23 compliant' mitigation - i.e. to account both for new domestic emissions, and '*sub-NAQS objective*' or '*sub-NSCA guidance significant magnitude change*' increases resulting from development travel demand. See section below for further comments on emerging policy.

It is noted that 6.8.3 refers specifically to climate change, but provides a weak argument to justify a 'no specific mitigation' approach, based upon an anticipated shift toward increased uptake of electric vehicles, which assumes a clean energy supply. This section should both refer- and respond- to climate change policies, and in particular (given the justification presented) make recommendations in accordance with emerging local policy IN3.

The overall conclusion of the assessment is that there will be a 'not significant' adverse impact upon ambient air quality as a result of the operational transport demand of the development, after mitigation (junction improvements). The model validation information indicates that the predicted total environmental concentrations (of air pollutants) are likely to represent over-estimates, relative to real-world measurements (taken in the baseline year). No model adjustment has been made, and the report acknowledges that this is likely to lead to a relatively conservative assessment. This has been done to counter unavoidable modelling uncertainty - ensuring that a credible 'worst case' has been considered. I have checked some of the presented results against real-world monitoring not included for verification, and I would agree that the model tends toward over-estimation - particularly in close proximity to the A3(M). This is particularly true where there is a height differential between the carriageway and the receptor.

In this way, it would appear reasonable to rely upon the results of the assessment, despite the highlighted 'unrepresentativeness' of the allocation of development trips to the local road network (described above).

Emerging 'Air Quality Relevant' Policy

The Air Quality Assessment (at section 6.8.8, conclusions) recommends some good practice measures to mitigate the sub-significant air quality impacts of development, identifying some ways in which the development could serve to contribute to limiting local increases in concentrations of local air pollutants. It should be noted that these do not amount to firm proposals.

The scheme design & access statement does not seek to specifically respond to the recommendations of the Air Quality Chapter, nor to directly address emerging policy E23 (though it is identified as relevant policy in Chapter 6 of the Environmental Statement, and some air quality relevant mitigation is proposed).

The design similarly does not specifically address any other 'air quality relevant' health, design or climate change policies of the 2036 Local Plan, perhaps most significantly, not providing a proposal in respect of infrastructure policy IN3 (provision of a minimum number of electric vehicle charging points, and/or network support for private post-occupation provision).

The allocation from which the support for the principle of development is drawn from the 2036 Local Plan, and I would consider that the acceptability of the principal of development allocations should be construed holistically (i.e. subject to meeting the policy requirements of the plan as a whole)

I acknowledge that some measures aimed at 'sustainable travel', and 'mitigating the impacts of travel' are proposed which would serve to contribute towards compliance with policy E23. Given the scale of development, it is considered that there is room for improvement in the package for mitigation of the air quality impacts of the development in terms of;

- the new domestic emissions sources,
- the sub-significant adverse changes to air quality such as those at locations where the air quality objectives don't apply - e.g. pedestrians, cyclists & other road users - arising from both domestic sources and the new travel demand, and
- the influence that the development will have in terms of the change of use from a green-field to an urban environment (for example, through appropriate landscaping).

Addressing domestic emissions sources represents an opportunity to address climate and energy policies at the same time, e.g through the specification of low- & zero-carbon energy generation and domestic heating systems (etc.).

Similarly, appropriate landscaping and planting may contribute to meeting the objectives of both Air Quality & Ecological policies.

In respect of emerging policy, and especially in consideration of the nature and scale of the development, I would recommend that a design response be sought which affords consideration to these factors - ideally in respect of all development phases, but certainly in respect of any future phases of development.

Specifically, I would recommend that;

- a design response to emerging policy IN3 be sought, confirming at least suitable provision of power infrastructure to permit a generous future provision of domestic charging points, and ideally an IN3 compliant developer-installed initial provision which considers a commercial offering for visitor space / public provision.
- consideration of design response to E23 a) (emissions offsetting), for example in respect of domestic heating, cooking, ventilation, or solar-energy provision (etc.) - with due regard for related climate and energy policies.
- consideration be given to improving the proposed planting mix, especially at the site boundaries & buffer areas, to include a greater proportion of native species with 'medium' & 'high' Urban Tree Air Quality index Scores (UTAQS, see woodland trust 2012), or selecting similar species with equivalent characteristics (currently poorly represented within the planting schedule).
- consideration be given to the provision of green property boundaries where possible

Mr. Jonathan Driver
Environmental Control Officer