

HAVANT BOROUGH COUNCIL
Town & Country Planning Act 1990
Consultation on Planning Application

MEMORANDUM

From:	Environmental Health	To:	Development Control
Our Ref:	CONS/16/01135	Your Ref:	APP/16/00774
EH Case Officer Extn:	44 6677	Date:	22 August 2016
DC Case Officer:	Daphney Haywood		
DC Case Officer Extn:	44 6513		
Application Number:	APP/16/00774		
Site Address:	Land North of Havant Road and west of Selangor Ave, Emsworth		
Proposed Development:	Erection of 192 dwellings with associated parking, access, landscaping, and surface water drainage, pumping station and sub station.		

Observations / Comments:

I have reviewed the supporting documentation provided with this application insofar as it relates to the Environmental matters listed below;

- i) Ground quality / contamination,
- ii) Contribution of new vehicle trips to local air pollution,
- iii) Exposure of future occupants to existing air pollution,
- iv) Potential traffic impacts of the development (as a surrogate for micro-scale air quality impacts where existing traffic flows are likely to be altered), and;
- v) Environmental pollution via surface drainage

I will not make any detailed comment with respect to nuisance issues (noise / dust / light) or housing standards - Mark Moss has been allocated this case to review in respect of these issues, and further comment is expected under separate cover.

Ground Quality / Contamination

It is noted that the revised Contamination assessment is materially unchanged from that submitted in 2011, other than it includes chemical test results previously omitted, and the recommendations for further work includes 'consideration of' additional soil contamination testing in order to update the findings of the presented report.

I would agree with the overall conclusion that the site (as a whole) represents a low risk of ground contamination, and this is indeed borne out in the available chemical test results from soil samples taken in 2011.

I do note however that of the 6 boreholes installed (with groundwater monitoring standpipes), and 14 no. trial pits advanced & logged, only 5 no. soil samples were analysed. All samples were taken from shallow soils, from borehole cores.

On a site measuring some 6 Ha, the sampling resolution is considered to be low. I note that the samples taken did not seek to target potential sources identified within the desk study

element of the report - namely the dilapidated farm buildings and former clay pits.

It is believed that the former clay pits located at Selangor Avenue were infilled with inert spoil under engineering supervision as a part of the Selangor Avenue development - I have been unable to confirm as recent network changes have rendered the Microfiche archive temporarily unavailable. I am sufficiently confident however that I see no need to require empirical soil gas monitoring data be collected to confirm the ground gas regime (associated with a risk that former clay pits might have been backfilled with deposited household / putrescible waste).

The farm buildings that are noted to appear on the 1952 map are also present on 1946 aerial photography, indicating a construction date sometime between 1932 & 1945. These are considered to represent the location at greatest risk from the presence of localised contamination - principally in the form of made ground (material disposal, or used in construction of all-weather tracks and yard surfacing), but also potentially including the incidental release of asbestos fragments / fibres from the buildings themselves (through physical damage &/or general deterioration), or as a localised significant impact from materials previously stored, handled or used at these buildings.

Whilst unlikely to represent significant contamination in it's current context, it is possible that a newly defined property (proposed residential unit) could meet the definition of contaminated land if its boundary encompasses a contamination 'hot-spot'. I note that the location of the former farm buildings is expected to coincide with the high-density part development (comprising 3-storey flats or townhouses without private garden areas), and with an area of communal soft landscaping that could represent a viable area for play.

In this way, is accepted that the location of this potentially contaminating landuse feature is of relatively low sensitivity (relatively to the spectrum of residential land use types). It is however considered both reasonable and prudent in the context of the scale of the development to seek to confirm ground conditions in this area of the site, for the protection of the health of future residents, and to protect the amenity value of the green spaces.

I do not consider it necessary to undertake a more comprehensive site-wide assessment, the submitted report is considered likely to be representative of the previously undeveloped areas that comprise the bulk of the site area. I would concur with the recommendation of Wilson Bailey that groundworks should progress under a watching brief for contamination, and that any suspicious ground conditions be investigated & appropriately dealt with prior to continuation of development, or segregated & tested prior to their re-use elsewhere on site.

I have no objection to the proposed scheme on contamination grounds, subject to the following conditions (over leaf):

Condition 1 [Contamination (Bespoke - Spatially Limited / EDS Omitted)];

Prior to the commencement of groundworks within areas of the site that are 'brownfield' (previously developed land & land in its immediate vicinity), an assessment of the nature and extent of contamination associated with previous land use in those areas shall be submitted to and approved in writing by the Local Planning Authority. The assessment shall be undertaken by competent persons, and the findings presented as a written report.

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

- 1) Site investigation appropriate to both the previous & approved use of the site, to provide sufficient data and information to adequately identify & characterise any physical contamination on or affecting the site, and to inform an appropriate assessment of the risks to future occupants.*
- 2) The results of an appropriate risk assessment based upon (1), and 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 in the Remediation Strategy (2) are complete, to include consideration of 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], Contamination may be present at the site as a result of both previous land uses (&/or activities) that could pose a risk to future residential occupants.*

Condition 2 (Verification);

*Prior to the occupation of any relevant part of the permitted development, any verification report that is 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], Contamination may be present at the site as a result of both previous & current land uses (&/or activities) that could pose a risk to future site occupiers.*

Condition 3 (Watching Brief - to apply to entire site / all groundworks):

"In the event that suspected contamination (soil, groundwater or buried waste materials) is encountered during groundwork; works in affected areas of the site shall cease until 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 comprise separate reports/statements as appropriate, but unless specifically excluded in writing by the Local Planning Authority, shall include;

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

All assessments, works, monitoring & other actions required by i)-iii) above (and B, below) shall be undertaken by competent persons, and 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 i-iii) above; together with a Verification Report (where appropriate) demonstrating that remediation objectives have been met.*

Reason: *In the interests of the amenity of the locality and having due regard to policy DM10 of the Havant Borough Local Plan (Core Strategy) 2011 and the National Planning Policy Framework."*

Contribution of new vehicle trips to local air pollution

860 new vehicle trips are expected to be attributed to the development (daily basis), representing <100 additional trips within each of the AM & PM peak hours, and a maximum traffic volume impact of approximately 3.5% (A259 Havant Road, West of site).

I have reviewed the WYG Air Quality Assessment (July 2016 - Ref: A098826), and broadly agree the parameters used. Whilst the scenario's modelled state that committed development flows are accounted for in both the 'do minimum' & 'do something' scenario's; it is not clear how (or indeed, whether) committed development has been incorporated in to the assessment. No committed development schemes are listed, nor is any component of the 2017 flows attributed to any scheme, project or development.

In this way, the assessment should not be regarded as robust in terms of the estimates of absolute levels of air pollution under either future scenario. I would agree however that the model has been shown to be sufficiently accurate (as against verification monitoring points), and as both the committed development (appears to be-) omitted from both the 'do minimum' and 'do something' scenarios, the assessment of the proportional change to air quality as a result of *this* development is considered to be broadly representative.

I am not aware of any major / strategic committed developments that would significantly elevate future baseline traffic flow on the local road network such that (for example) the failure to account for it could mask foreseeable junction capacity issues, or significantly impact queue length or junction delay estimates (which would all be indicators of a micro-scale air quality impact)

The report concludes that the development would have a negligible impact on ambient Nitrogen Dioxide (NO₂) and on Particulate Matter (PM₁₀) at the representative existing receptors modelled. I would agree that has been adequately demonstrated.

Exposure of future occupants to existing air pollution

The principal source of air pollution to which the residents of the proposed development will be exposed is that associated with traffic on the A27 dual carriageway. The development places new residential property within a reasonably close proximity to the kerbside of the A27, and as such warrants consideration as to the likely levels of exposure relative to the National Air Quality Objectives. The WYG air quality assessment predicts a maximum absolute (annual average) exposure to both NO₂ & PM₁₀ of less than 75% of the objective values (significantly less than this level in respect of PM₁₀).

A rough dispersal / dilution calculation (AQC fall off with distance calculator, v4) has been undertaken using 'worst case' assumptions (background NO₂ = 18.57 ug/m³ (2015), an NO₂ measurement at 125% objective value at a distance of 5m from the carriageway, and receptors located 5m closer to the carriageway than proposed) as a 'sense check' to the modelling results presented in the WYG report.

This rough calculation predicts no exceedance is predicted, with air quality exposures even under this scenario being less than 90% of the objective value.

In terms of the physical characteristics of the site, it is noted that the proposed properties are located down-prevailing-wind of the A27, and that a noise barrier is present along the southern boundary of the carriageway (as shown on aerial photography, and confirmed by streetview). Whilst the barrier in place is of a relatively modest height, it will promote turbulence in air (mixing / dilution of pollutant) through its contribution to source adjacent surface 'roughness'.

In consideration of the above, I am confident that the exposures of future residents to traffic pollution associated with the A27 will be well within acceptable limits. No mitigation or further assessment is considered necessary.

Traffic & Highways Impacts of the Development (Air Quality)

The development is agreed to be sustainably located, with both proximity to public transport and to facilities supportive of non-motorised modes of transport being favourable. These factors are considered to be supportive of the submitted travel plan, which seeks to secure a 10% reduction in single adult occupancy trips by private motor vehicle. If achieved, this would serve as a substantial mitigation of the 860 anticipated new vehicle trips associated with the operational phase of the development. It is understood that the recommendation of the travel plan is that it be secured as part of a s106 agreement, be subject to a bond amounting to 20% of the travel plan investment allocation, and that monitoring be undertaken by a part time monitoring officer who will liaise closely with Hampshire County Council to ensure effective implementation. I support the aims, objectives and proposals & recommendations of the travel plan.

Site Access

In respect of the vehicle trips associated with the operational phase of the development (being new to the local road network, as the development represents a new 'origin' for road traffic); I note the results of the access junction modelling, which favours a simple non-signalized priority T-junction.

The assessment briefly mentions a configuration which includes a right-hand turn lane for Westbound traffic (entering the development), but which was not modelled. It is noted that design priority for the site access appears to be to achieve an efficient site access that a) can be achieved on land within Highways ownership, and b) does not unnecessarily disrupt existing traffic during construction.

Anecdotally, concern has been raised in some of the objections that Westbound vehicles turning right into the development (which is expected to be the principal route, with 75% traffic anticipated to travel East away, to return Westbound) could pose an obstruction to the free flow of traffic on the Havant Road. I would agree that there is a risk that this may prove to be the case. The outbound movement (RH turn, to Eastbound) is also anticipated to result in some peak period queuing on the site access road.

It is likely that an access configuration that includes a ghost-island (Westbound RH turn waiting lane) would serve to address the concerns that this traffic could interrupt flows on the Havant Road. This configuration could also provide enhanced environment for road cyclists making the same movement (rather than using pedestrian refuges East of the site), and inclusion of a waiting area for East bound traffic turning out of the access could improve peak period queue lengths.

Both the traffic modelling & location of existing & proposed receptors suggests that it would be reasonable to require such an arrangement on grounds of a likely deterioration in local air quality (under the proposed configuration); however it is considered to be worth mentioning here as supporting comments, in the event that Highways would seek improvements to the access proposals for other reasons.

Junction Capacity, A27 Emsworth Junction Dumbbell Roundabouts

Modeling demonstrates that the dumbbell junction operating at or over capacity, with max queue lengths on the North side exceeding 40 vehicles in the PM peak period, reaching sensitive receptors on Emsworth Rd.

The minor amendments proposed claim significant improvements on this junction arm, with >80% reduction in PM peak period queue length. I view these results very skeptically - they rely upon an effective flare length increase which represents only a marginal increase in available southbound width (<0.5m), and it is not clear that this will allow side-by-side queuing for any significant distance. The predicted queue length reduction are considered likely to be an artefact of the modelling process (specifically the change in effective flare length parameter from 0-28m) rather than being representative of the level of flow improvement that could reasonably be expected from the amendments to junction geometry.

The traffic impact (of the development) on the current junction situation is relatively minor (albeit that it exacerbates an existing issue), so as above, it may not be justifiable to require more substantial junction improvements on grounds of the air quality impact alone. Nevertheless, improvements to this junction represent the greatest opportunity for deliverable air quality & traffic flow improvements, and I consider that the current proposals do not maximise that opportunity, and could risk failing to delivering effective mitigation.

If there is a mechanism whereby the local planning authority could seek more robust improvements to this junction (specifically to reduce peak Westbound queue lengths on Emsworth Road), I would fully support this and would anticipate material micro-scale air quality improvements as a consequential result.

Environmental pollution via surface drainage (SUDS)

The submitted drainage strategy includes pollution control provisions, but not a specific pollution assessment.

I have screened the site against the SUDS Manual (Control of Pollution, Ch. 26), and note that the simple index approach is appropriate. The site risk requires minimum index values of 0.2 / 0.2 / 0.05, and 0.5 / 0.4 / 0.4 (TSS / Metals / HC's; for residential roofwater runoff, and driveways & low traffic roads respectively).

Index values for proposals;

- Soakaways for roofwater - 0.3 / 0.5 / 0.5 ,
- Constructed permeable paved surfaces (surface water from roads and driveways) - 0.7 / 0.6 / 0.7,
- Adoptable infiltration swales with bio-retention (surface water from roads and driveways) - 0.8 / 0.8 / 0.8.

On the basis of the above, the surface water disposal structures proposed are considered to adequately mitigate pollution associated with the operational phase of the development.

I have not reviewed flooding, water transmission efficacy or discharge rates relative to greenfield rates (etc.) - I expect that LLFA to make detailed comment on these elements.

Mr. Jonathan Driver
Environmental Control Officer