

HAVANT BOROUGH COUNCIL

Town & Country Planning Act 1990

Consultation on Planning Application

MEMORANDUM

From:	Environmental Health	To:	Development Control
Our Ref:	DCS/EH/JPD/120727002	Your Ref:	[As Application No.]
Ext. No:	6677	Date:	27/07/2012

DC Case Officer: Rachael Hebden

Application Number: APP/12/00407

Site Address: Land East of New Lane & West of Warblington School

Proposed Development: Construction of 79 dwellings consisting of 5No. 2 bed houses, 47No. 3 bed houses, 3No. 4 bed houses, 3No. 1 bed flats and 21No. 2 bed flats, with associated parking and landscaping including openspace and pumping station. New vehicular access to New Lane, and modifications to existing New Lane highway.

Observations / Comments:

Ground Contamination

The Hydrock report appropriately identifies nearby potential sources of ground contamination, inclusive of the former gas works / waste transfer (Wessex) site, railway, and infilled gravel extraction pit immediately north of the rail line. It is agreed that there are no specific potentially contaminating landuses or contamination sources historically or currently located within the development red-line plan area, with the exception of the made ground identified within the Ashdown Report, and highlighted at the desk study stage.

I agree that the groundwater environment is not sensitive at this location, and that there is little need to consider groundwater as a receptor for contamination. It is noted that groundwater is shallow, and that the site lies below the level of surrounding land – particularly to the north, where elevated potential contamination sources are located.

On this point, it is noted that the desk study had not identified the fuel storage tanks located on the former Wessex site, nor considered it necessary to undertake a fuel-range or total hydrocarbon screen within the sampling suite, despite the proximity of the rail line.

The conceptual model, and qualitative phase 1 risk assessment also focused solely upon the subject site – i.e. on-site sources that the owner / applicant may be liable to remediate. It appears that the possibility of contamination migrating onto the development site and posing a risk to future site occupants was ignored, despite there being a responsibility on the developer to ensure that the finished development is suitable for use & safe for future occupiers.

Broadly, I can agree with the results & conclusions of the Hydrock report, however it is noted that both the environmental monitoring (gas & groundwater monitoring) & the risk assessment rationale were both missing from the appendices of the report.

It is also of concern that hydrocarbon sampling was omitted from the sampling suite, as the PAH16 test undertaken does not necessarily correlate with fuel-range hydrocarbons, and cannot be regarded as a reliable indicator of the absence of fuel contamination. Similarly, the reports conclusions with respect to water supply pipework specification are based upon incomplete data, as the contaminants that are typically capable of penetrating a PE supply pipe are VOC / TPH (fuel hydrocarbon fraction), neither of which were included within the sampling suite.

It is reasonable to suspect the presence of TPH from off site sources (Wessex site – former depot / WTS) given the shallow, mobile groundwater, and the site being at a lower elevation than land to the north. Similarly, wood preservative etc. from the elevated railway & gas works residues migrating within groundwater are similarly plausible pathways to justify the inclusion of some VOC sampling.

The report states that gas monitoring was ongoing at the time of writing, so some monitoring data should be extant. I require sight of this.

Similarly, the report makes reference to groundwater sampling, however the reference is unclear & I am uncertain as to whether results from previous sampling are available. The report is clear that S1, S2 & S3 were installed with monitoring wells, which should facilitate the collection of groundwater samples without the need for additional intrusive works. It is considered necessary to rule out the possibility of contamination within groundwater for a robust assessment of risk.

Any groundwater sampling should include a VOC & TPH screen at a minimum, and preferably a speciated suite for each. It is not considered necessary to sample on-site soils initially, but it is prudent to retain a means to require this in the event that VOC / Petroleum Hydrocarbons are identified within groundwater at concentrations sufficient as to be of concern to human health.

For the reasons above, it is considered that the submitted investigation report is insufficient to recommend that this development proceed without a ground contamination condition applied. However, I can confirm that it is considered that the submitted report does not give reason for concern *with respect to the risk pathways & determinands assessed*. My only remaining concern is for the risk pathways & substances not assessed within the report, and whilst I propose the standard planning condition, it is envisaged that the scope of the required works will be limited. It is important however to retain the ability to deal with any issues that arise from that work (i.e. risk mitigation measures, vapour barriers, capillary break in garden areas etc.), hence the recommendation that the full standard condition be imposed on any consents granted, as reproduced below:

Condition 1

Prior to the commencement of the development approved by this Planning Permission (or such other date or stage in development as may be agreed in writing with the Local Planning Authority), a scheme to deal with the risks associated with contamination of the site shall be submitted to and approved in writing by the Local Planning Authority. That scheme shall include all of the following elements unless specifically excluded, in writing by the Local Planning Authority.

1. A desk study identifying:

- *All previous uses*
- *potential contaminants associated with those uses.*
- *a conceptual model of the site indicating sources, pathways and receptors*
- *potentially unacceptable risks arising from contamination at the site.*

2. A site investigation scheme based on previous investigation reports, for the purpose of provide informing an appropriate assessment of the risks to all receptors that may be affected, including those off site.

3. The results of the site investigation and risk assessment (2) and if appropriate, a method statement based on these results giving full details of the remediation measures required and how they are to be undertaken.

4. A verification report shall be prepared on completion of the works set out in (3) confirming the remediation measures that have been undertaken in accordance with the method statement and setting out measures for maintenance, further monitoring and reporting

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

Reason: To prevent future occupiers of residential units on the site from being exposed to unacceptable risks arising from previous land uses located outside the development site; and having due regard to policies and proposals E1 of the Hampshire County Structure plan 1996-2011 (Review), and DM10 of the Havant Borough Adopted Core Strategy (2011)

Air Quality

I have reviewed the submitted Traffic & Transportation Assessment (T&TA) in some detail, from a perspective of the potential impact upon the volume of road traffic; considering the likely corresponding impact on local air quality.

Of particular concern is the possibility of increased congestion, where queuing traffic with idling engines contribute disproportionately to local air pollution (particularly PM10's & Oxides of Nitrogen, specifically NO2).

It is noted that the road network in the vicinity of the site (routes away to destinations to the north & west in particular) is highly constrained, further frustrated by the level crossing which is noted to be closed frequently, and for periods of up to 15 minutes. Essentially, only 2 route options are available for within-district north / west destinations (out of district westerly destinations are served by the A27 via a third route, south of the development site), both ultimately utilising Elm Lane, which is known to have air quality issues and will likely be the subject of an AQMA within the near term. Notably, for out of district westerly destinations, drivers may still choose the Elm Lane / Park Road route for trunk road access at Havant, as opposed to using the Emsworth 'dumbbell' junction.

The constrained routing network is further disadvantaged by narrow carriageways, which introduce 'pinch-points', that could potentially add to congestion in the event that the length of traffic queues increases significantly as a result of the development.

Comments from the Highways Agency

It is noted from Para. 5.3.5 that these issues have been studied in detail by the highways authority, however it is clear from the notes that this detailed study was firmly focused upon highway safety and the potential for traffic incidents (collisions & pedestrian conflicts), and that congestion / flow dynamics were treated as secondary concern.

An example of this is in the concern that a driver approaching from the south, wishing to turn into the development when the gates are closed, may drive on the south-bound carriageway past the queuing traffic, to the site access. Where drivers are encouraged to pull a U-turn within the site entrance (or indeed a driver exiting the development wishing to travel south), a traffic conflict is expected to occur, and carriageway width is expected to be such that in this situation, the vehicles would not be able to pass one-another until the gates are lifted and the queue clears. Until the queue clears, no traffic would be able to leave the development on a southbound journey (i.e. entrance would be 'gridlocked'). The Highways agency response was that this situation would be acceptable, based upon the typical slow speed and attentive driving of transgressing drivers, and the consequent limited likelihood of collision.

It is implicit within this response however, that traffic flow would be arrested, and most vehicles would be stationary with idling engines; likely to have a disproportionate impact on local air quality. The 'reason' for drivers to undertake such a manoeuvre is solely due to the introduction of the site entrance, and indeed, the source of traffic on the southbound carriageway is solely due to the site entrance, made up of vehicles leaving the site, and the opportunity for queuing traffic to u-turn within the entrance & re-route (the benefit of doing this is clearly demonstrated within the report as a justification for the assumption that the queue length would not significantly increase).

Junction Options

Three options were considered by the assessment – including not promoting development (1), a 'left-in, left-out' access arrangement (2), and the proposed priority junction (3). Carriageway alterations to alleviate local pinch-points (i.e. at Waterloo Rd.), or provide a RH turn lane into the development were not considered. I agree with the conclusions regarding option 2, in that a left turn in, left turn out arrangement would result in significant additional mileage (though an area of poor air quality) & additional & unnecessary queuing, and is not considered to be an appropriate option.

The option(s) not considered within the report are thought to be technically feasible, and potentially appropriate – however in the absence of detailed analysis of junction function (i.e. calculating queue lengths based upon crossing closure sequence etc.), it would not be possible to determine with any certainty whether there would be any significant benefit to their implementation. These studies were not deemed necessary from a highway safety perspective, but may be appropriate from a congestion / local air quality perspective.

Derbyshire Example

It is also worth noting that section 5.3.14 compares a development access adjacent to a level crossing in Derbyshire, to the proposed New Lane development. I would caution that although the crossing type & distance between the crossing & the junction may well be broadly equivalent, the report does not state that the site suffers the same routing constraints, barrier closure frequency / durations, traffic flows, re-routing time advantage etc.

The presented example should not be given too much weight with respect to the assessment of air quality / traffic flow impacts - it may be broadly relevant from a highway safety perspective, but context is very important in terms of congestion & Air Quality.

Increase in Traffic Volume

With respect to the expected increase in road traffic volume utilising this section of New Lane, the T&TA does not specifically address this question. I have therefore had to undertake some conservative calculations (based upon the 08:00-09:00am & 17:00-18:00pm flow figures presented – notably not stated to be peak flows) in order to determine what the likely impact would be. These calculations are outlined below for clarity of source, and I would stress that I have used conservative factors – using factors generated from the presented survey data *would result in a significantly higher estimate*.

Utilising a conservative conversion factor of 5.2657 Peak Flow to 12hr (presented data is between 7 & 8.8 factor), development traffic would be:

- $44 \times 5.2657 (= 231) \times 1.133$ (12 hr>AADT factor) (=264) x seasonality factor (March, 0.988) (= 261).

Existing average daily 12 hour flow* (from survey, March 2011) New Lane is:

- $726, \times 1.133 \times 0.988 = 813$ (AADT estimate, comparing with an average 24hr from survey, of 844).

Assuming that the level crossing gates are closed for 20 mins / hr (1.5 crossing events / hr, equivalent to 1/3rd traffic) per 12 hr peak period (it is assumed that crossing events for the non-peak 19:00-07:00am not significant), total traffic queuing as AADT =

- Total Existing Traffic (813) / AADT>12 hour factor (1.133) = 717 AADT.

25-30% of queuing traffic is expected to perform a U-turn (i.e. existing AADT traffic, 718×0.25 & 0.30 = traffic performing a U-turn (additional 1-way journeys), as below:

- 718×0.25 (179),
- 718×0.30 (215)

Total traffic (journey) increase on New Lane is therefore assessed to be between 440 (i.e. 261+179, from above) and 476 (i.e. 261+215, from above), or 54.12 - 58.55% (based upon the 813 AADT figure).

(* - Monday data presented for the survey period may be anomalous, showing zero road traffic movements between 10:00am & 23:00pm – true average flows may be in excess of figures presented above, which are conservative estimates)

An increase in local road traffic of > 50% is considered to be highly significant (regardless of whether the proposed site entrance does, or does not lead to an elevated risk of congestion / gridlock, although this is an exacerbating factor which must be qualitatively considered), and I therefore disagree with the conclusion of the report, that the impact of the development would be 'neutral'. Indeed, this conclusion is made within the report with specific reference to queue length & road safety – air quality is not considered explicitly.

Given the degree of increase in traffic volume, it is considered that an AQ assessment for worst case exposure locations (such as 1 Fairfield Road, 13 Waterloo Road, or 3 Eastview Terrace – all within 4.0m of the kerbside) should be undertaken.

Mitigation & assessment timing

Any mitigation of impacts would likely require additional junction / traffic flow assessment, and highways modifications, or if this is not possible / feasible, it may be appropriate to seek a developer contribution to air quality monitoring & management within the Havant Area. For these reasons, it is considered that an assessment of the air quality impacts of this development would be required *prior to this application going to committee*, as these issues cannot easily be dealt with by means of conditional approval.

Ideally, the assessment would be based upon the DMRB assessment tool, validated against local monitoring data (which can be provided by EH for nearby locations). Junction assessment / additional traffic counts may be required in order to gather reliable data for assessment parameters. I am happy for the applicant / consultants acting on behalf of the applicant to contact me regarding the scope / method of assessment.

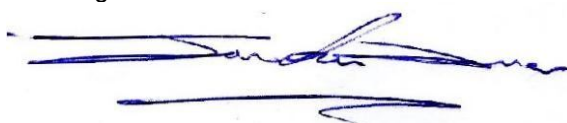
To be clear, there need not be a demonstrable risk of exceeding the air quality objective within the locality of the development, it is sufficient for there to be a 'significant adverse impact' upon local air quality at a specific location. EH would assess this using the Association of London Government (ALG) criteria, as a benchmark.

Summary – Air Quality

I perceive the access / traffic flow issues to be potentially very significant at this location. The desirability of the development and the ability to market the properties are clearly matters for the developer alone to consider; and highway / crossing safety is an issue for the Highways Authority & Network Rail. The comments here are limited to the likely impacts of the development on the local road network from a traffic flow / air quality perspective – and in this regard I remain concerned that the access arrangements associated with this development may lead to a significant local impact.

It is considered that insufficient information has been provided to HBC in order to determine the acceptability of the air quality impact of these proposals, and I am minded to object to the application in the absence of an appropriate assessment.

Best Regards



Jonathan Driver
Environmental Control Officer