SAVE PEEL HALL
TOO LATE WHEN IT'S GONE

Proof of Evidence

Vol 2 - Noise

Produced by Margaret Steen

Rule 6 Party

Peel Hall - APP/ M0655/W/17/3178530

CONTENTS

Proof of Evidence

Margaret Steen Peel Hall Campaign Group

1 Personal Details

My name is Margaret Steen; I appear on behalf of the Rule 6 Party - Peel Hall Campaign Group and Peel Hall Boarding Kennels. I live at [redacted]

I have lived at Peel Hall for 28 years and have extensive knowledge of the area.

My evidence is based on the parameters plan and noise assessment submitted by the appellant.

2 Noise

2.1 Noise is a material planning consideration that should be taken into account when deciding a planning application or on an appeal against a planning decision.

2.2 Planning Inspector, Richard Schofield in his report to the Secretary of State for Housing and Local Government in 2018, said at: 2.3 "The site is situated directly to the south of the M62 motorway. There is **constant noise** from passing traffic on the motorway, which is audible on and well beyond the site."

2.3 Noise can cause annoyance and fatigue, interfere with communication and sleep, reduce efficiency and damage hearing. The World Health Organisation recommends a guideline level of 30 dB LAeq for undisturbed sleep, and a daytime level for outdoor sound levels of 50dB. (Appendix 1: Environmental Protection UK)

2.4 "Excessive noise seriously harms human health and interferes with people's daily activities at school, at work, at home and during leisure time. It can disturb sleep, cause cardiovascular and psychophysiological effects, reduce performance and provoke annoyance responses and changes in social behavior." (Appendix 2: World

Health Organisation)

3 ACOUSTIC MONITORING

3.1 On behalf of the appellant, Miller Goodalls monitoring of noise from the M62 was done in May 2019, their acoustic report, dated March 2020 was not available to the Rule 6 Party until April 2020. Currently the consequences of the Covid pandemic, the lock down, furloughing of 9 million people and 49% of the country's remaining work force working from home, has changed the use of the M62. This currently prevents further relevant noise monitoring until the country returns to normal operations.

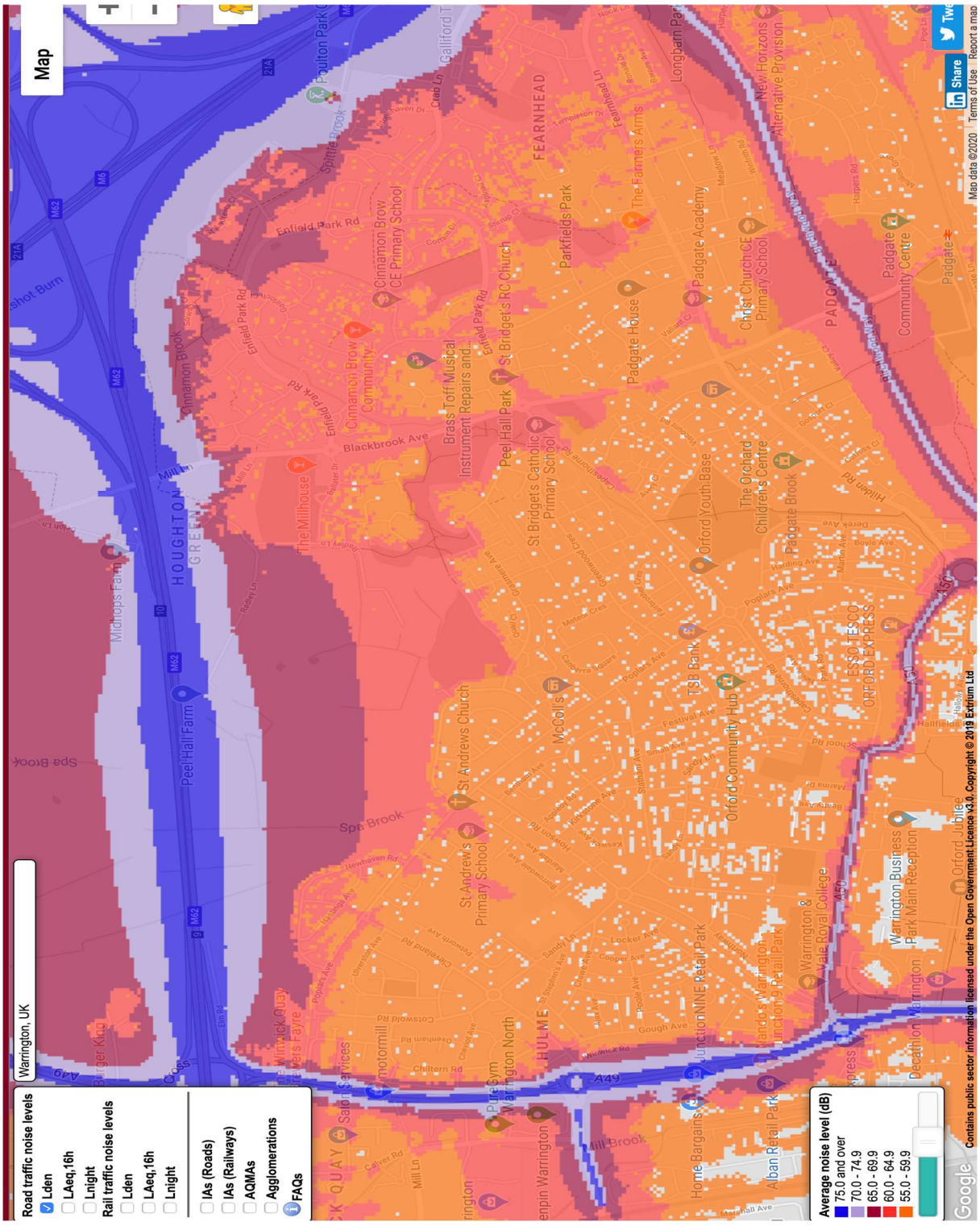
3.2 Defra has published strategic noise map data that gives a snapshot of the estimated noise from major road and rail sources across England in 2017. The data was developed as part of implementing the Environmental Noise Directive. (Appendix 3 : Defra Road Mapping)

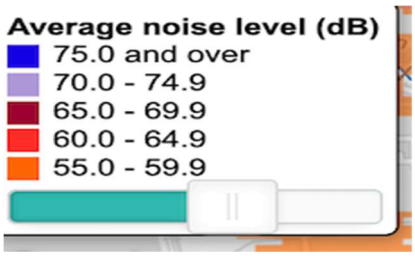
3.2.1 The publication explains which noise sources were included in 2017 strategic noise mapping process. It provides summary maps for major road and rail sources and provides links to the detailed Geographic Information Systems (GIS) noise datasets.

3.2.2 The data will help transport authorities to better identify and prioritise relevant local action on noise. It will also be useful for planners, academics and others working to assess noise and its impacts.

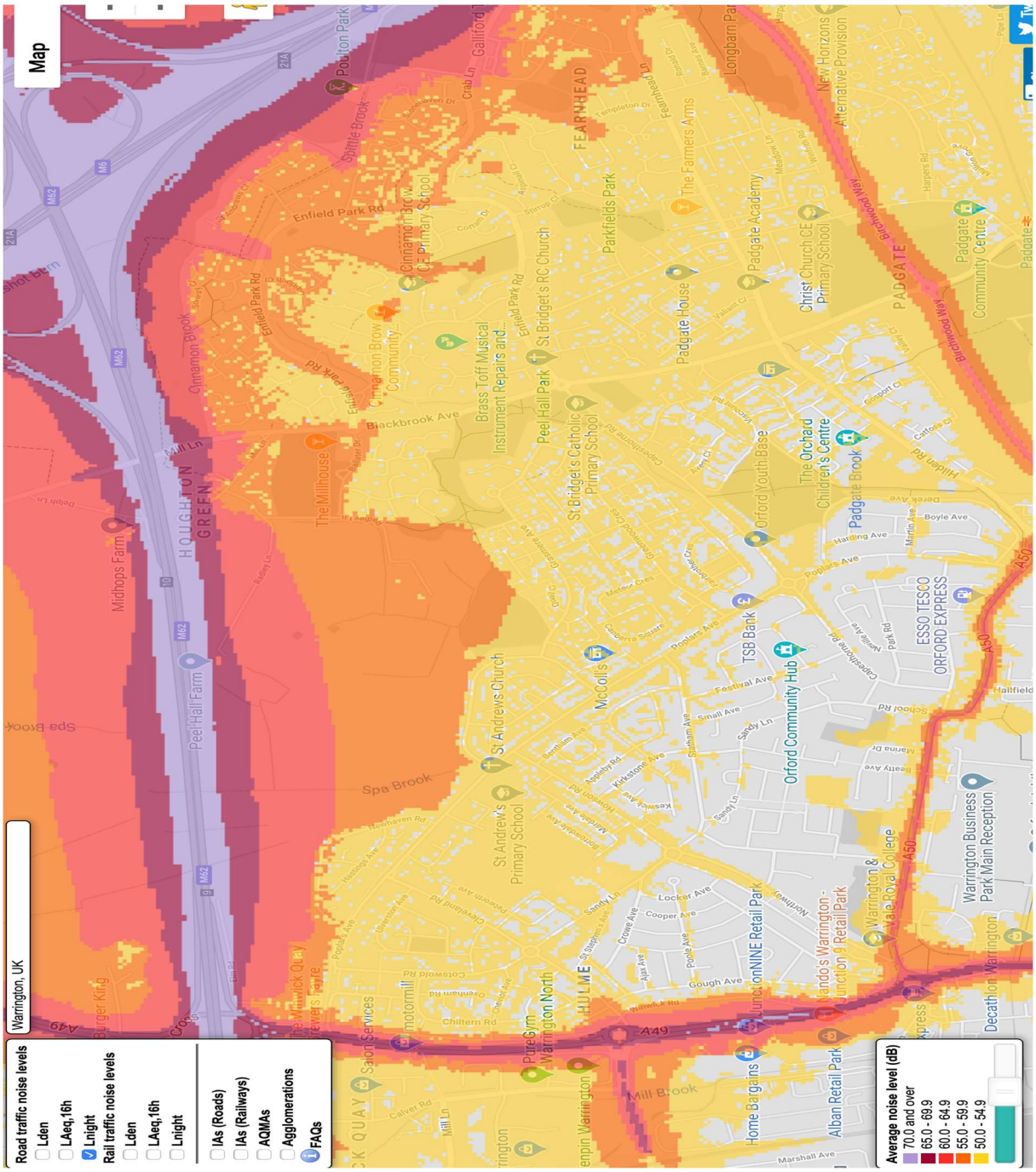
3.2.3 The strategic noise map data published by Defra highlights the extent of noise across Peel Hall shows the extent

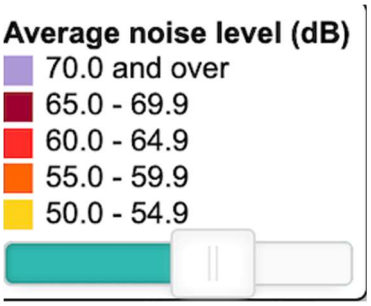
Peel Hall Noise Mapping - Daytime





Peel Hall Noise Mapping – Night





Design Manual for Roads and Bridges

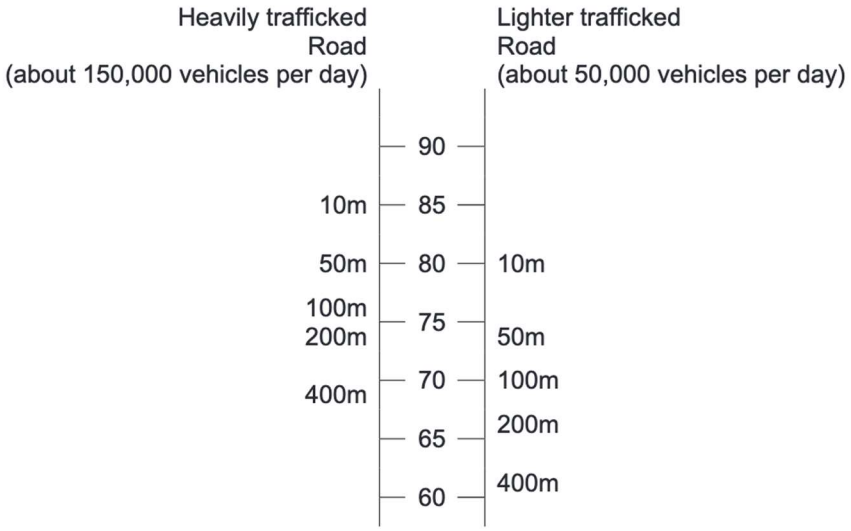


Figure A3.1 – Example of Typical Traffic Noise Levels, $L_{A10,18h}$

Example of Typical Traffic Noise Levels, LA10,18 hr

The LA10, 18h noise level is arithmetic mean of all the levels of LA10 during the period from 06:00 to 24:00. From research it has been found that subjective response to road traffic noise is closely linked to higher noise levels experienced and is correlated well with the LA10,18h index **(Appendix 4 Design Manual for Roads and Bridges, Annex 3)**

3.3 Noise levels over the site are dominated day and night by road traffic noise from the M62, which runs for the entire length of the northern site boundary. (11.3.6 ESA 2 Vol 8)

3.4 There is no evidence of the true location for a noise barrier.

3.5 There is no evidence of the distance between the motorway kerb side and location of the barrier.

3.6 The measurements used for these conclusions assume a continuous noise barrier adjacent to the M62. There is no evidence that a continuous barrier could be achieved.

3.7 (11.6.15 ESA2 VOL 8))

Table 11.13: Predicted worst case façade levels

Floor	Height	Daytime				Night-time			
		Façade $L_{Aeq,16h}$	BS8233 criteria	Internal $L_{Aeq,16h}$	Impact	Façade $L_{Aeq,8h}$	BS8233 criteria	Internal $L_{Aeq,8h}$	Impact
Ground	1.5 m	67	35	52	Major	62	30	47	Major
1st	4.0 m	69	35	54	Major	65	30	50	Major
2nd	6.5 m	70	35	55	Major	66	30	51	Major
3rd	9.0m	72	35	57	Major	67	30	52	Major

3.8 The predicted worst-case facade levels show the magnitude of impact would be **Major.**

3.9 We are told the existing noise levels at the most exposed residential receptors will have **significant adverse effect.** (11.6.15 ESA2 Vol.8)

3.10 The "**significant adverse effect"** is with the inclusion **of** a modelled noise barrier; there still remains 22 dB of reduction to be achieved to reach suitable internal levels.

3.11 Table 11.13 does not include the relevant information in regard to:

- the location of the modelled residential receptor
- the distance between the highway and the noise barrier
- the distance between the noise barrier and the receptor
- the modelled barrier construction and its attenuation ability
- the assumed height of the barrier

3.12 There are no location details of the indicative 4 storey residential block, identified as the residential faced to the noise source and used to produce table 11.13. (11.7.2. ESA2 VOL 8)

3.13 The results would be significantly different if it is not possible to build a continuous

noise barrier, this has not been considered in the noise facade forecast.

3.14 There is no evidence that these **are** the worst-case facade levels. There is a complete lack of information on how these measurements were arrived at; this renders the suggestion that BS8233 criteria could be achieved as questionable/doubtful.

3.15 Without knowing the exact location of the noise barrier, its height and attenuation properties and also confirmation of the ability to construct a barrier without gaps it is impossible to accurately determine the noise impact at the nearest receptors. Mitigation cannot be considered without this detailed information.

3.16 The acoustic report refers to: PPG, NPPF, NPSE DEFRA Pro PG and several BS standards There is no evidence the recommendations from these documents have been used to assess the site noise. The report is inaccurate and incomplete, it fails to include or assess all the circumstances relevant to producing an accurate acoustic assessment for this complex site. The site constraints have not been included or adequately assessed.

3.17 According to ProPG Stage 1 - Initial Noise Assessment - the risk assessment should include the acoustic effect of any existing site features that will remain (e.g. retained buildings, changes in ground level and exclude the acoustic effect of any site features that will not remain. (Appendix 5 -ProPG - 2.8)

3.18 ProPg Stage 2, Element 4 is the consideration of "Other Relevant Issues)."(Appendix 5 ProPG - 2.16)

3.19 We know that the remaining site features or "other relevant issues" have not been included in the noise risk assessment, because noise from Peel Hall Kennels was excluded from the entire acoustic assessment, the impact of changes in ground level has

not been considered. The gas mains, the watercourses, the public footpath, have all been excluded as relevant to the noise assessment mitigation proposals.

3.20 All noise sources that would have an impact on any future development have to be included as part of the noise assessment, without doing so the acoustic assessment is unsound.

3.21 The boundary between the site and the M62 is close to 1 mile in length. The assessment of motorway noise consisted of only **3** monitoring points:

Table 11.7: Monitoring Information

Position	Type	Start	End	SLM
MP01	Attended	22/05/19 11:12	22/05/19 14:12	1406017
MP02	Attended	22/05/19 11:25	22/05/19 14:14*	1406815
MP04**	Attended and Unattended	23/05/19 12:00	24/05/19 08:00	1406815

* Monitoring just short of target 3 hours to avoid confrontation

** Attended 12:00 – 15:00, Unattended 16:00 – 08:00

(11.3.8 ESA2 Vol.8)

3.22 The topography of the site along the north boundary varies in height by 10 metres, the impact this would have on noise monitoring has not been considered.

3.23 No monitoring was done between 8.00 a.m. and 12.00 noon at any of the locations, or on busy days.

3.24 No monitoring took place on the body of the site. The noise from the M62 penetrates through the site, as can be seen by the Defra noise mapping, page 6 and 7 of this report.

3.25 Long Term monitoring at MP01 and MP02 was **not** undertaken because the surveyors were advised that there was an enhanced risk of vandalism to monitoring equipment on site. No further evidence of this risk was included in the report. (11.3.9 & 11.3.10 ESA2 Vol 8)

3.26 MP02 monitoring was short of the target 3 hours to "avoid confrontation." Once again,

no evidence provided to substantiate this claim.

3.27 Professional Practice Guidance on Planning and Noise – New Residential Development advises that noise risk assessments should aim to describe noise levels over a typical worst-case **24 hours day**. This was not been done, the monitoring fell far short of the recommended time scales, and was not done on the busiest day of the week. (Appendix 5 ProPG -2.9)

3.28 The extremely limited monitoring periods and locations do not adequately reflect the noise environment of the locality.

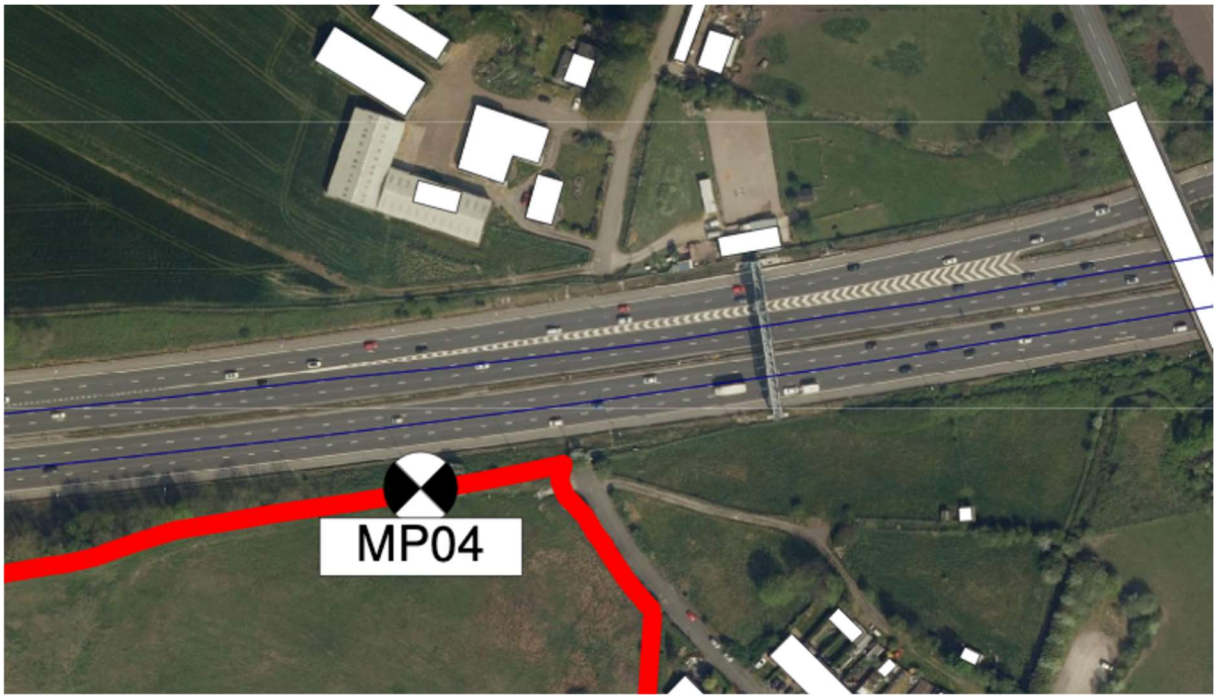
3.29 MP03 at Mill Lane playing fields was terminated due to being disturbed by pedestrians and eventually terminated due to grass cutting activities on the playing fields. One attempt at capturing real time noise at the location of a proposed development of 1200 homes is typical of this lacklustre noise assessment.

3.30 It is hard to believe that real time monitoring was abandoned with such a flimsy excuses. There are means of securing or overseeing noise monitoring equipment if necessary, particularly on private land. Why was only one attempt made? There is no justification for the failure to monitor the already extremely limited number of monitoring points alongside the M62 sufficiently to record accurate real time noise measurements. There is no rationale as to why 8 locations were used for modelling the proposed 225-metre noise barrier requirement at Mill Lane/Blackbrook Avenue, but only 3 monitoring locations along the 1mile north boundary with the M62 Motorway. Overnight monitoring at only one location, on one occasion, is grossly inadequate as evidence of acceptability of homes in this location. (ESA2 VOL 9 N9 & N5)

3.31 Warrington is well known for its road connectivity. Junction 8 of the M62 is home to Omega, a 233-hectare site, currently the largest mixed-used development site in the

North West. Royal Mail, Hermes Parcelnet, Travis Perkins, Asda, and the HUT Group are just some of the large **24-hour** nationwide, distribution companies operating from the site. Omega is the perfect location for these large distributors, with direct access to the M62, at junction 8, and at junction 10 access to the M6 for both North and South onward travel. Omega is a 24-hour/ 7-day operation. Omega continues to expand with the consequence of increased traffic on this stretch of the M62 motorway.

3.32 EXIT 10 of the M62 motorway is opposite monitoring position MP04. Traffic leaving the M62 to join the M6 would be slowing down at this point. Royal Mail trailers are 13.6 metres long and 4.44 metres high they would not be at maximum speed (and maximum noise) when approaching the road bending at Junction 10.

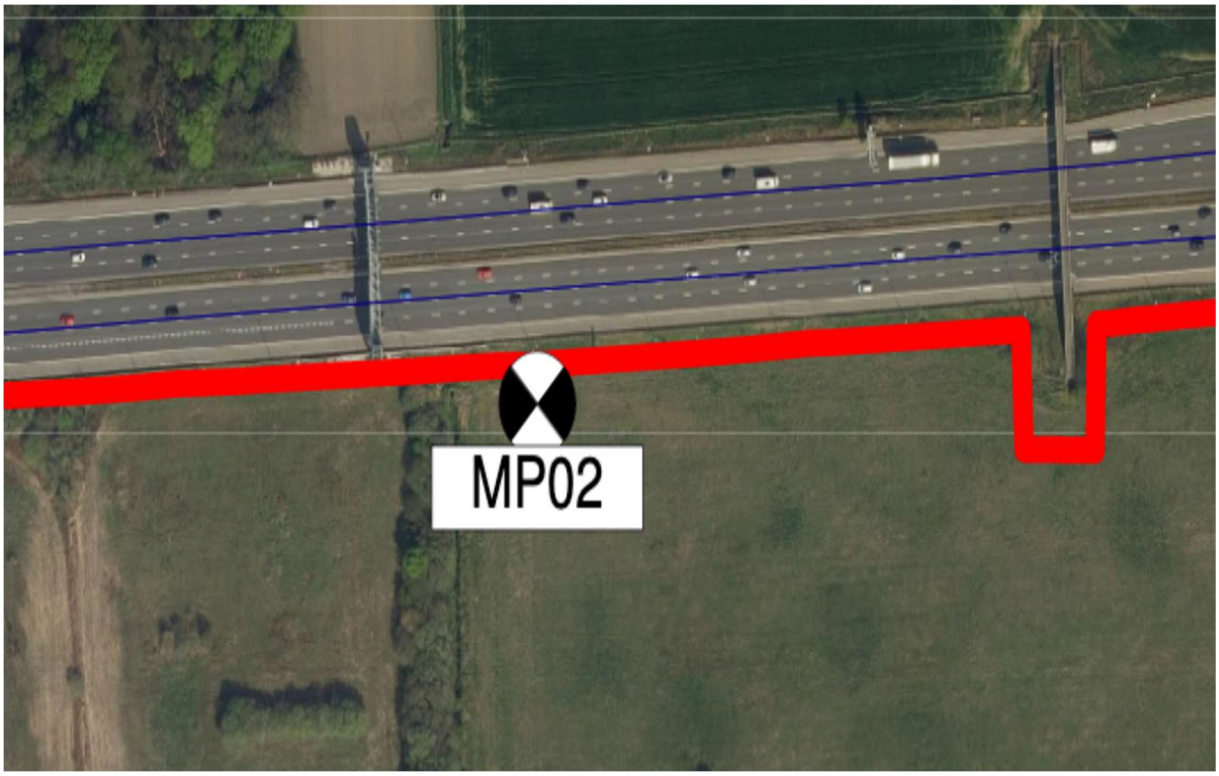


Monitoring position MP04 was 16 metres from motorway and 4.5 metres above – opposite the exit road to M62 Junction 10 exit to M6 motorway.

(N5 - ESA2 Vol.9- Monitoring Positions)

3.33 MP04 was the only location to have night-time monitoring, this location is not typical of the noise across the length of the M62/site boundary, there is no justification

provided for using this one location as a basis for night noise assessment/modelling. The site boundary is almost one mile in length, more monitoring points/data are required to capture the noise across the boundary length.

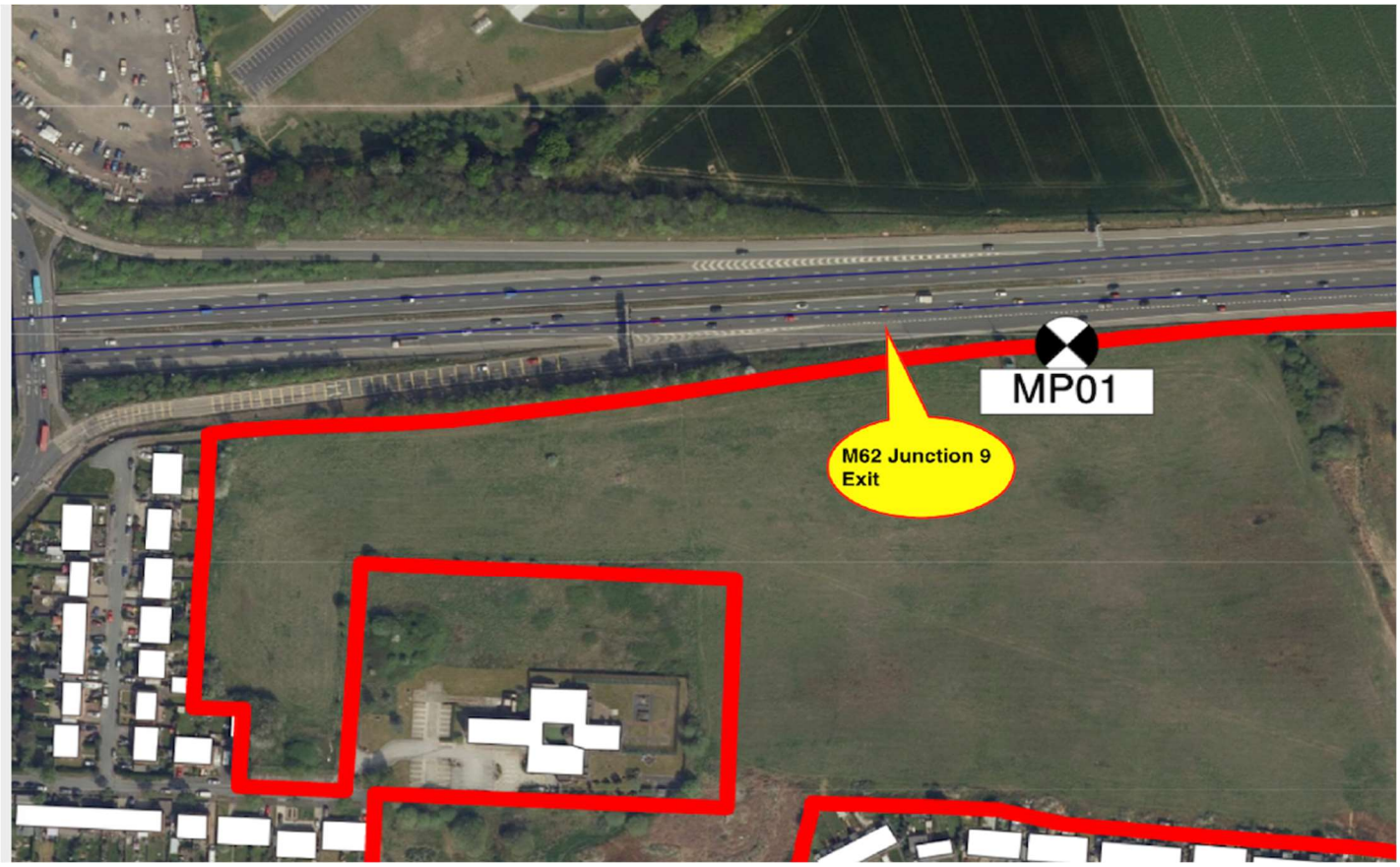


Monitoring position MP02 – 10 metres from motorway and 1 metre below motorway height

3.34 MP02 was monitored between 11:25 and 14.49 for a period of just 2 hours 49 minutes. No measurements are recorded during the busy periods and **no night -time** monitoring took place. At the centre of the north boundary, with no adjacent exits, MP02 must be the nosiest part of the north boundary but was monitored for the least amount of time.

3.35 MP01 monitoring position was almost at the start of the slip road at junction 9 of the M62, once again, traffic would be slowing down at this position. No observed measurements are recorded during the busy periods; **no night-time** monitoring took

place at this location.



Monitoring position MP01 – 7.5 metres from motorway and 2 metres higher than motorway.

3.36 The acoustic report fails to record any information regarding the type of traffic using the M62 at different times of day or night. Night traffic is more likely to be the large noisier distribution vehicles, with less smaller vehicles. Daytime traffic would be a mixture of both.

3.37 The information submitted from the limited monitoring of M62 noise is unreliable; it does not capture sufficient data to assess the impact of the noise on a housing development in this location.

3.38 The acoustic report also fails to record the relevant site conditions. As previously mentioned the land level of the site varies from 20 metres AOD in the North to 10 metres in the South at Spa Brook, rising again at the M62 Junction 9 slip road. The topography of the land surrounding a sound source can have a significant influence on noise propagation. The noise report excludes any topographical data.

3.39 The positioning of noise monitoring at the Mill Lane end of the site 4.5 metres **above** the highway, compared with a monitor in the centre of the site 2.5 metres **below the** height of the highway would give significantly different readings.

3.40 The embankment of the M62 - belonging to Highways England - varies in both width and height from the highway to the site boundary fence from 2 metres wide to 25 metres wide. The positioning of a noise monitor on the boundary fence that has only 2 metres of embankment to the highway, compared to a noise monitor positioned at 25 metres from the highway would give significantly different readings.

3.41 A noise barrier is most effective the closer to the noise source, but any benefits of such a barrier cannot be accepted unless it's location and all the other relevant circumstances in the vicinity are included, which has clearly not been done. (Appendix 6 ProPG Supplementary Document 2 Good Acoustic Design 3.7)

3.42 All these factors impact an acoustic assessment, but are excluded from this generic report. The data collection and assessment is flawed, not fit for purpose, and the mitigation proposed, inadequate. The report is not sound.

3.43 Miller Goodall report says at 11.4.2 " There are a number of limitations and uncertainties associated with modelling of noise, and where applicable, realistic worst-case scenarios have been assumed (based on professional judgment): (ESA2: Vol 8)

3.44 Can we accept 'professional judgment' to determine where it is safe for people to live? It has **not** been proven where a noise barrier would be located, how much a barrier could attenuate the noise or exactly how high the barrier needs to be. This information is paramount to any noise measurement being used to assess if the noise level from the M62 can be reduced significantly enough to enable residential dwellings to be built.

3.45 It is unacceptable to rely on "noise modelling" for this site, using partial data. Real world measurements should be used when a noise sensitive site demands accurate acoustic reports**,** rather than reliance on theoretical solutions, modelled without the critical accurate information needed.

4 Noise Barrier

4.1 11.6.7 of the noise report (ESA2 Vol 8) gives details of barrier construction in general terms, but does not specify exactly which barrier would be used at Peel Hall. The suggestion is for imperforate material with a minimum mass of 12 kg/m2, close-boarded or overlapped timber paneling. A further suggestion was for a proprietary acoustic fence with a weighted sound reduction of 25 dB Rw would be appropriate.

4.2 We are not informed which type of barrier the acoustic modeling was based on. Acoustic fencing needs to be tightly fitted to the ground, timber panelling in contact with the ground would a) allow animals to burrow under and b) rot away under the damp conditions.

4.3 New residents need to be protected in the long term from excessive noise, the build for this site is a minimum of 10 years, new residential dwellings would be built to last 100 years, and all residents during this time need protection. A "short term fix" for noise reduction is not a sustainable solution for excessive noise.

4.4 It is fanciful to suggest 25 dB reduction could be achieved from fencing in any location across the north boundary. The maximum benefit of any acoustic fencing depends entirely on the location of the barrier in relation to the noise source. The north boundary to the site varies in distance from the noise source, (M62) motorway, from 2 metres to 25 metres.

4.5 The further a barrier is set back from the road edge the higher it must be to provide the same level of protection

4.6 **Noise barriers can reduce noise levels by up to 10 dB** (A).

(Appendix 7: Defra's Noise Action Plan: Roads, Environmental Noise (England) Regulations 2006.

4.7 The Appellant's calculations assume the noise barrier is infinitely long such that it provides a complete barrier to all noise from the M62, this is not proven.

4.8 It is proposed that a noise barrier of at least 4.0m in height would be located along the northern boundary of the site, which will be designed to avoid conflict with the existing National Grid infrastructure. (ESA2 VOL 8 11.6.6) however evidence shows:

- The proposed location of the noise barrier is not possible
- A continuous barrier is not possible
- The massing of 4 storey apartments adjacent to the M62 cannot be built as indicated on the parameters plan
- The ecology park is wrongly located for its purpose
- The plan fails to identify the existing Boarding Kennels business, a noise source that would still exists on the proposed development even if a barrier was built

Highways England

4.9 It is impossible to build a noise barrier in the location shown on the site parameters plan. The north boundary fence is owned by Highways England, who has confirmed (Appendix 8) the existing boundary fence belongs to them; any development on the land

would have to comply with Department for Transport Circular 02/2013. (Appendix 9)

- Annex A: Special Types of Development

> "For reasons of safety, liability and maintenance, with the sole exception of fences owned and provided by the Highways Agency at its own cost, all noise fences, screening and other structures must be erected on the developers land, and far enough within the developers land to enable maintenance to take place without encroachment onto highway land."

4.10 Highways England has many fixed assets at the Peel Hall site boundary, including:

- 45 lighting columns
- 3 gantry stations
- overhead pedestrian bridge

These all prevent the building of a noise barrier north of the site boundary.

National Grid

4.11 There is inadequate space to erect a barrier on the appellants land between Highways England boundary and the National Grid HP Gas Main. (Appendix 10 - Map Extract)

4.12 National Grid requires the HP gas main easement is not compromised and an easement of twelve metres is required. (Appendix 11 Easement)

4.13 The 12-metre easement requires access at all times, and prevents building of any kind, above it. The noise barrier would therefore have to be constructed within the site, south of the HP Gas Main.

4.14 A full gas easement location survey and agreement with National Grid is required to confirm if, or where, it would be possible for a noise barrier to be erected. The location of such a barrier dictates the location of the proposed apartments, proposed as the second line of noise attenuation.

United Utilities

4.15 United Utilities responded to the application as follows: -

- Any proposed layout should also reflect United Utilities' Right of Way to Elm Road wastewater pumping station.

- It is the appellant's responsibility to investigate the possibility of any United Utilities' assets potentially impacted by their proposals and to demonstrate the exact relationship between any United Utilities' assets and the proposed development.

- A water main crosses the site. As we need unrestricted access for operating and maintaining it, we will **not permit development over or in close proximity to the main.** We require an access strip as detailed in our 'Standard Conditions for Works Adjacent to Pipelines', a copy of which was provided with our previous consultation responses**."**

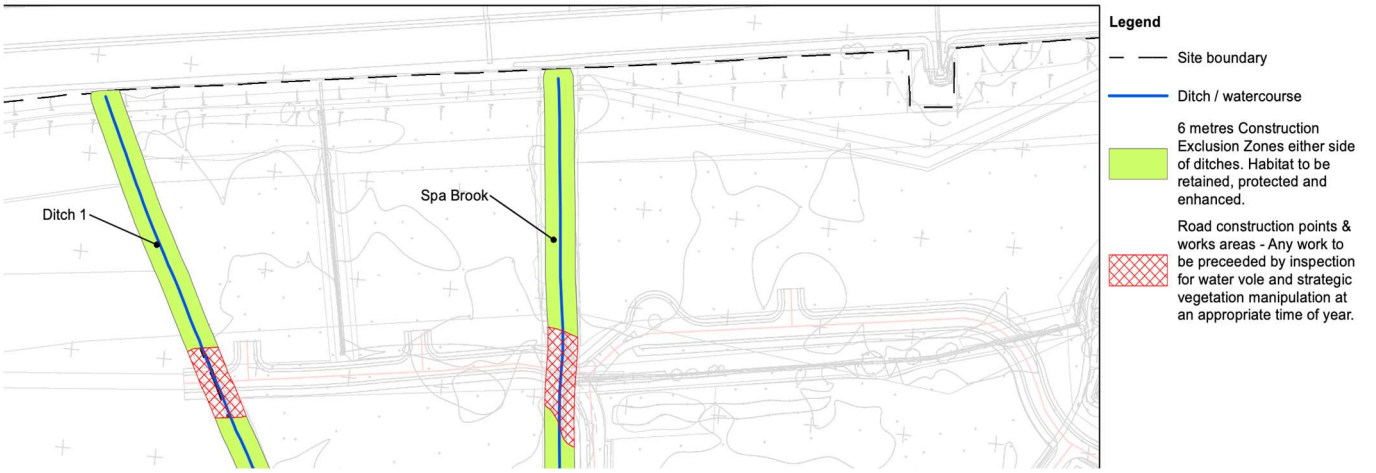
- The Pumping Station and right of way is also located within the site boundary. The appellant should note that we will need access to these assets including a vehicular access to the pumping station. The existence of the pumping station and access to it will need to be considered in the site layout. We recommend that this access is discussed with our Property Services team if this appeal is allowed so appropriate access can be agreed in the site layout**.**
  (Appendix 12 - United Utilities)

4.16 Information provided by Highways England, National Grid and United Utilities all

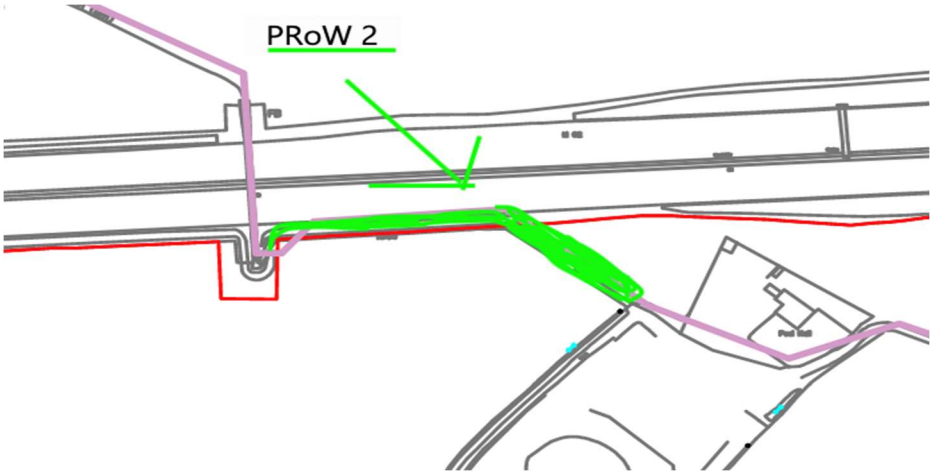
confirm that the proposed noise barrier **must** be located on the appellants land, complying with all relevant easement conditions.

4.17 The proposal for a continuous noise barrier on the north boundary is not possible. There are several locations that prevent a continuous fence.

4.18 Ditch 1 and Spa Brook, both have a minimum of 20 metres where neither, a noise barrier or dwellings could be built above.

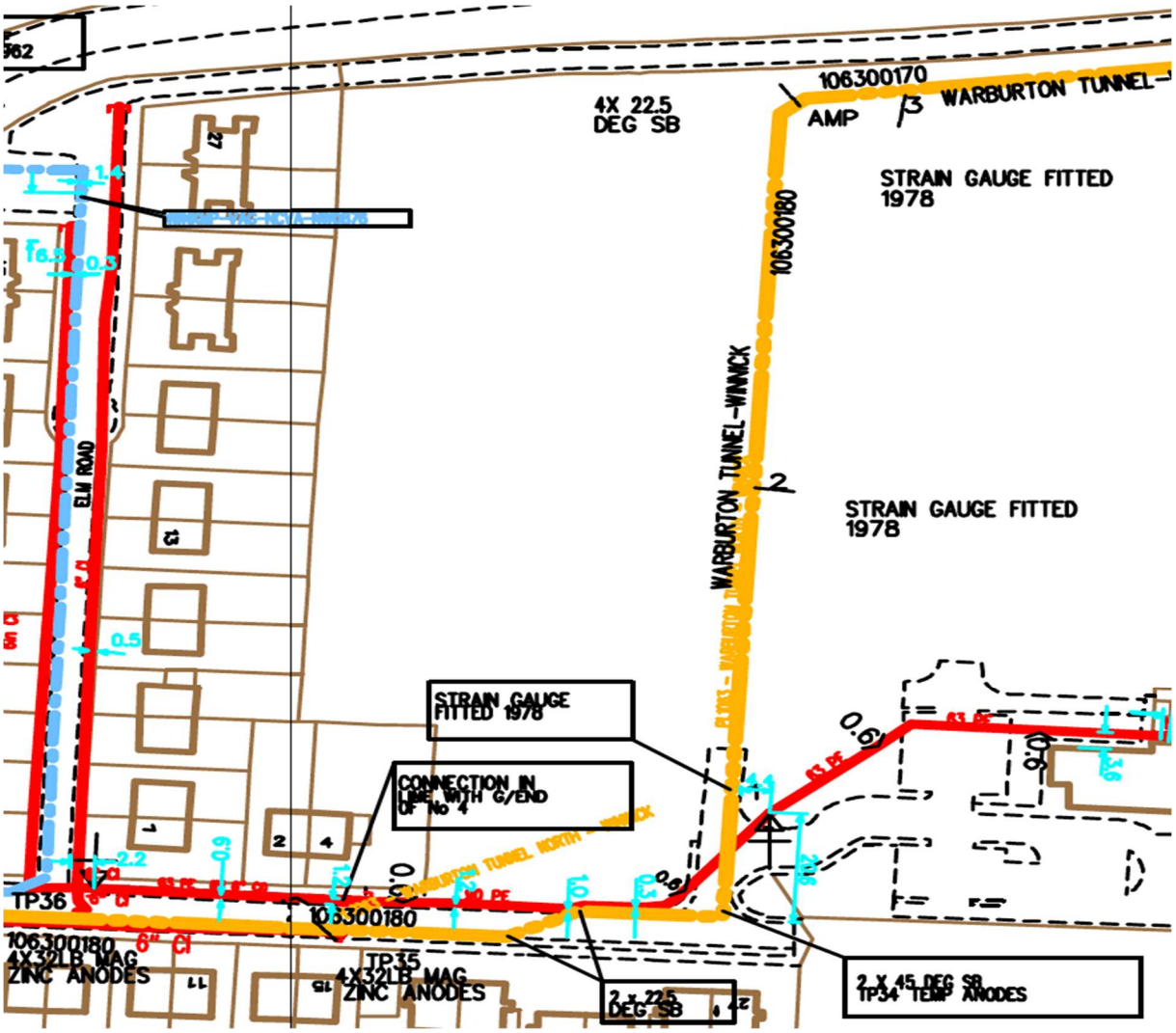


4.19 Public Footpath No.2

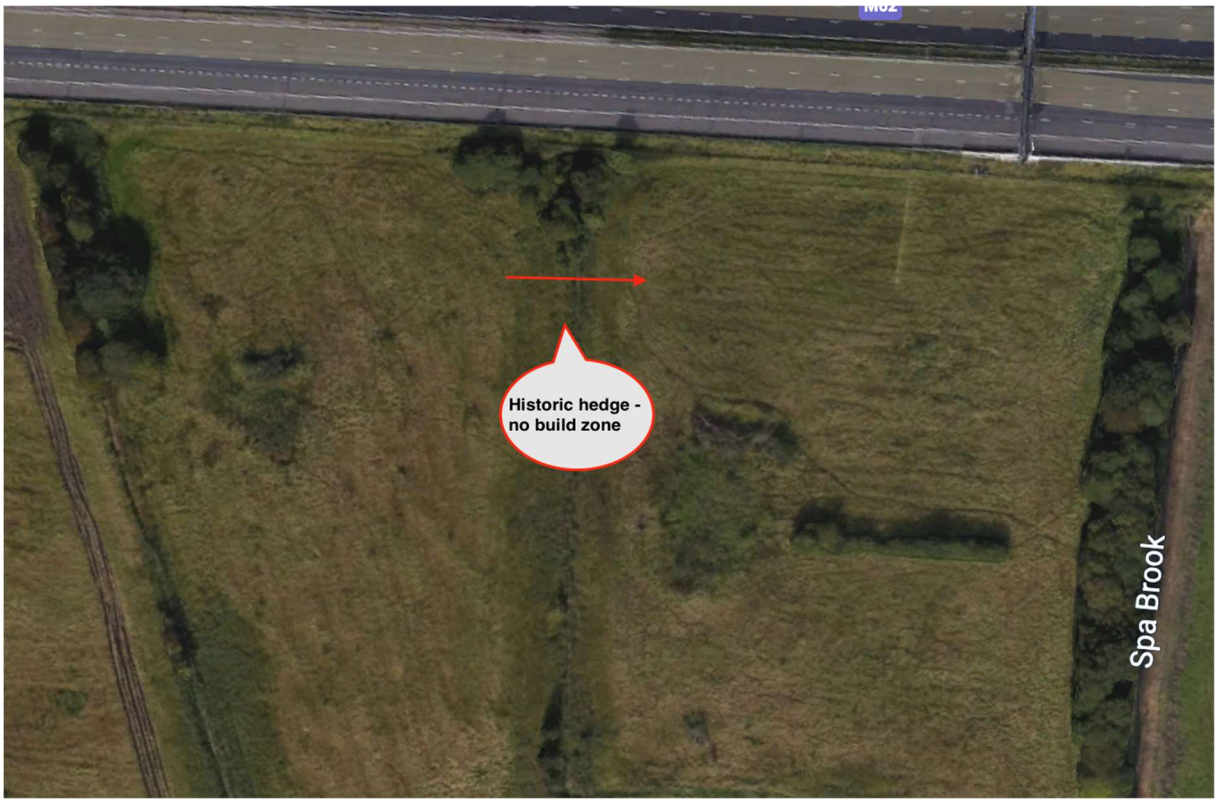


Access at all times – unsuitable for noise barrier or dwellings.

4.20 National Grid High Power Gas Main (identified as Warburton Tunnel) – 12-metre easement prevents any development above the mains.



4.21 Historic Hedge – no build zone



4.22 Given the proposed barrier only runs along the length of the northern boundary of the site, and not beyond the appeal site, noise would also propagate around the edges of a barrier. This would impact on the amenity of residents of Mill Lane and Elm Road; noise barriers should usually extend well beyond the site boundary to ensure adequate protection is offered. (Warrington Borough Council Environmental Protection Supplementary Planning Document 6.4.2 Appendix 13)

4.23 The site is not flat; it falls from the north (circa 20.5m AOD) to south (circa 10m AOD). The M62 embankment varies in width from 2 meters to 25 meters, and height from

below the motorway (2.5.metres) to 7.5. meters above the motorway.(Appendix 21)

4.23.1 The relevant position of the motorway road surface, its relation to the site level and the positioning of any noise barrier is critical to accurate noise assessment, these factors have been excluded in the noise report. Vehicles are transitory and the noise generated by them is not confined to a static point or location. Vehicles using the motorway travel along its full length and its curvature relative to the appeal site. Therefore, measuring on the basis of a static source does not allow for noise from any other part of the motorway other that that identified in the noise report.

4.24 A 4 metre barrier is proposed, but a barrier of at **least 6.5metres in height** would be needed for over 300 metres where the land drops a minimum of 2.5 metres below the height of the motorway.

Public Right of Way – 2.5 metres below M62 motorway

4.25

Site Level 2.5 metres below M62 motorway

4.26 A 6.5 metre barrier would be at the same height as the 2nd floor of the proposed 4 storey apartments.

4.27 A 6.5 metre barrier would have a harmful and overbearing presence in the outlook of existing residents and future residents of these apartments, the overall effect would be significantly harmful to their living conditions and amenity space.

4.28 A 6.5 metre high barrier requires a specialist engineering report to determine its possibility and location in relation to existing un-removable assets.

4.29 The Framework includes as a core planning principle that planning should always seek to secure a high quality design and a good standard of amenity for all existing and future occupants of land and buildings.

4.30 The effectiveness of an acoustic barrier is determined by six main factors:

- Gaps
- Material Density
- Barrier Construction
- Barrier Height
- Distance between noise source and receiver
- Relative height of source and receiver with respect to barrier

4.31 Holes, slits or gaps through or beneath a noise barrier, can seriously reduce the barrier performance, as the sound will "leak" through. The gap can be considered to transmit 100% of the noise. There is no evidence within the noise report that a noise barrier could be constructed without gaps. **The predicted worst-case facade levels (Table 11.13 ESA2 VOL 8) must be considered inaccurate until it is proven where a continuous barrier, without leaks , at what height and distance from the motorway could be constructed.**

4.32 Material density and barrier construction relate to sound transmission, in practical terms the greater the mass of the barrier the less the sound. However, the structural **integrity of the barrier is critical** to its performance as gaps will allow sound to find a direct path through the barrier – therefore it is vital that acoustic fencing should be constructed with no gaps and sealed to the **ground** to prevent sound leaking through. Acoustic barriers should be placed as close as is conveniently possible to the source of the noise to obtain optimum performance.

4.33 The assumption that the barrier is indefinitely long is unreasonable and substantially overestimates the potential mitigation provided by the proposed screen. This undermines the Appellants conclusions and methodology.

4.34 To include a noise barrier as evidence that noise from the M62 could be reduced requires evidence that it is possible to build such a barrier. This application does not contain any evidence to support the proposal; on the contrary there is a distinct lack of critical evidence. The proposal for a noise barrier is unsound.

5 MASSING

5.1 The noise report informs the reader *"Existing noise levels at the most exposed residential receptors will have a **significant adverse effect**.* (11.6.15 - ESA2: Vol 8)

5.2 The proposed noise barrier alone cannot reduce the excessive M62 noise sufficient for development, secondary noise attenuation is proposed. The Parameters Plan (APP6) indicates this is to be in the form of a continuous barrier formed by the four storey apartments the complete length of the northern boundary.

5.3 The report goes on to say, building massing should be used at the design stage of each individual parcels of the development to ensure that the private outdoor amenity space for individual plots should be below 50 dB LAeq, 16h. **(11.6.17** ESA2: Vol 8)

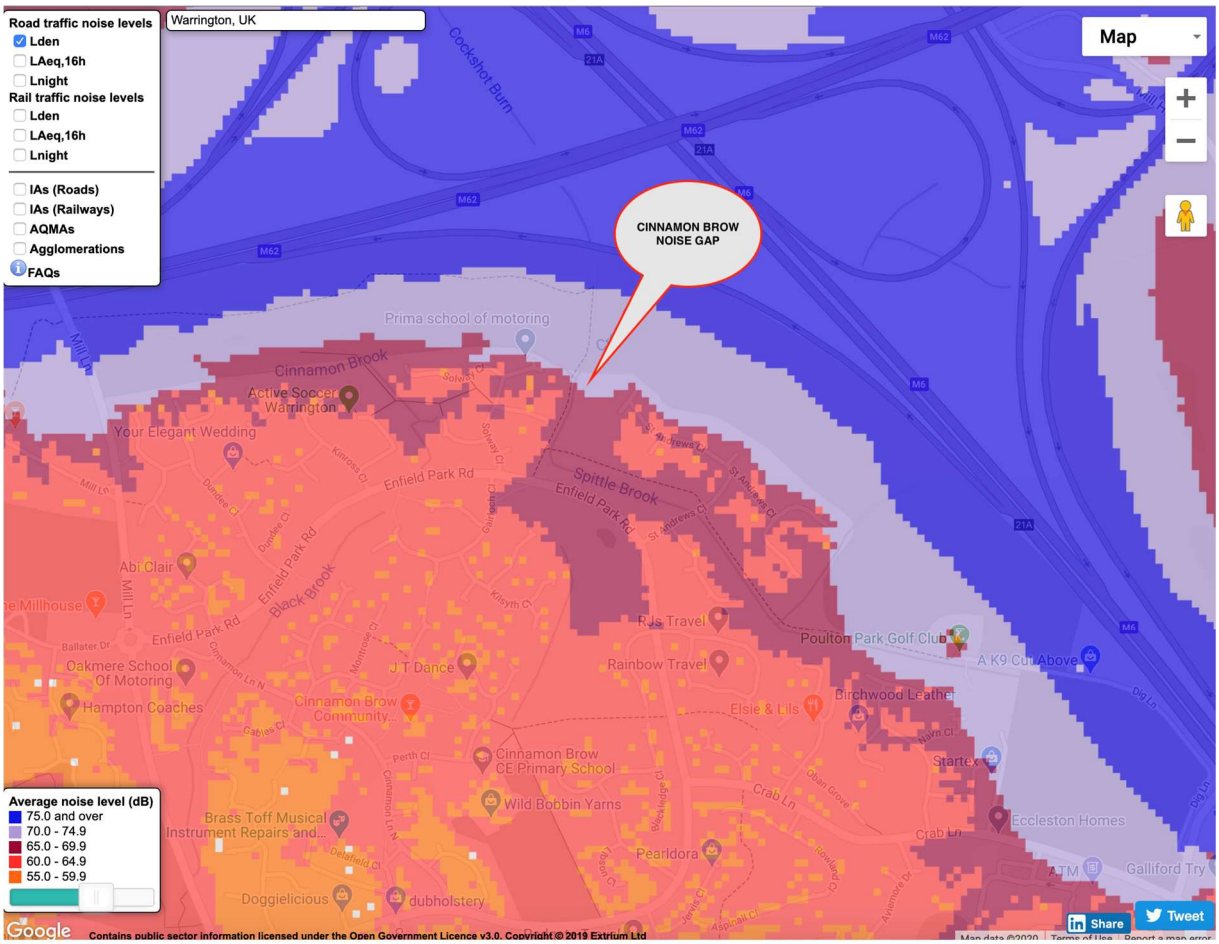
5.4 Building massing over 10 years or more, as proposed, means most residents would have to live with noise substantially above the recommended levels with the subsequent health issues this would bring. This would have a significant adverse effect on the living conditions and amenities of those properties built in the first 9 years of the development, without guarantee that sufficient noise attenuation could be finally achieved.

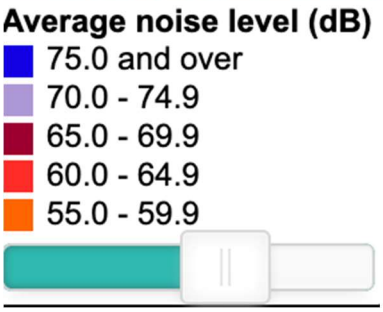
5.5 The opportunity for a continuous frontage, parallel to the noise source (M62) is not possible at Peel Hall. The development of the site would be over 10 to 15 years, with different plots and different developer's. The noise assessment fails to mention any attenuation measures for the gaps, where **no** massing can take place e.g.

- 230 metres at the rear of Peel Hall Kennels & attenuation pond
- Between separate apartment blocks
- Between separate building plots
- Above brooks and watercourses
- Location of historic hedge
- At the rear of Elm Road houses
- At the site entrance in Mill Lane
- 12 metre Gas Main easement

5.6 All of these locations will produce gaps that would allow 100% of the noise levels to penetrate through the site; this renders the proposal of apartments reducing the noise to the amenity space and rest of the site as being ineffectual.

5.6.1 This is an example of noise penetration levels at nearby Cinnamon Brow, which has a 145 metre stand off.





5.6.2 Cinnamon Brow has 145 metres stand off from the motorway and continues to allow excessive noise to penetrate through the site between massing. As can be see above, noise levels of 65.0 to 69.9 permeate a further225 metres through the site .

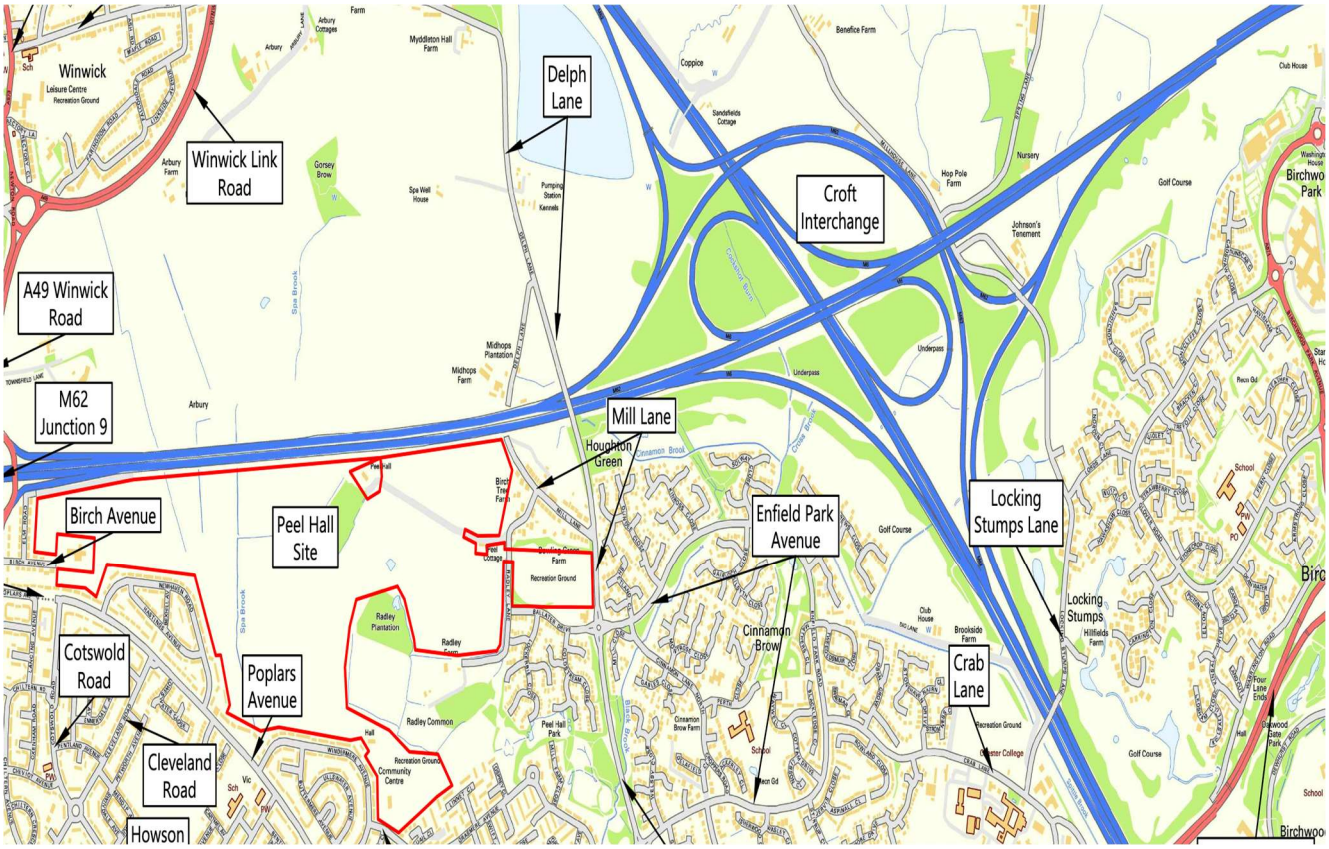
5.6.3 With a bare minimum stand off proposed at Peel Hall, noise levels penetrating through the identified gaps will be much higher than those at Cinnamon Brow. The 230 metre gap at the rear of Peel Hall Kennels allows noise to penetrate through

5.7 Peel Hall currently has no buildings higher than 2 storeys on any of its boundaries. Peel Hall is on the edge of the town. Most of the properties in the area are family homes, with very few apartments.

5.8 One and two bedroom apartments alongside a busy motorway are not homes for young families. These types of apartments are for students/single people, who want to live near the town or city centre with easy access to education, employment, amenities and bus/rail terminals. Adjacent to the M62, with limited public transport is not a sustainable plan for this type of development.

5.9 Neighbouring communities - Cinnamon Brow and Locking Stumps, built by the New Town Development Corporation, are situated alongside M62/M6 Croft Interchange. The layout of both areas incorporated a significant set back from the motorway noise of 140 metres minimum at Cinnamon Brow and 150 metres minimum at Locking Stumps. A similar set back distance should be part of any development at Peel Hall, in tandem with an accurate noise assessment.

5.10

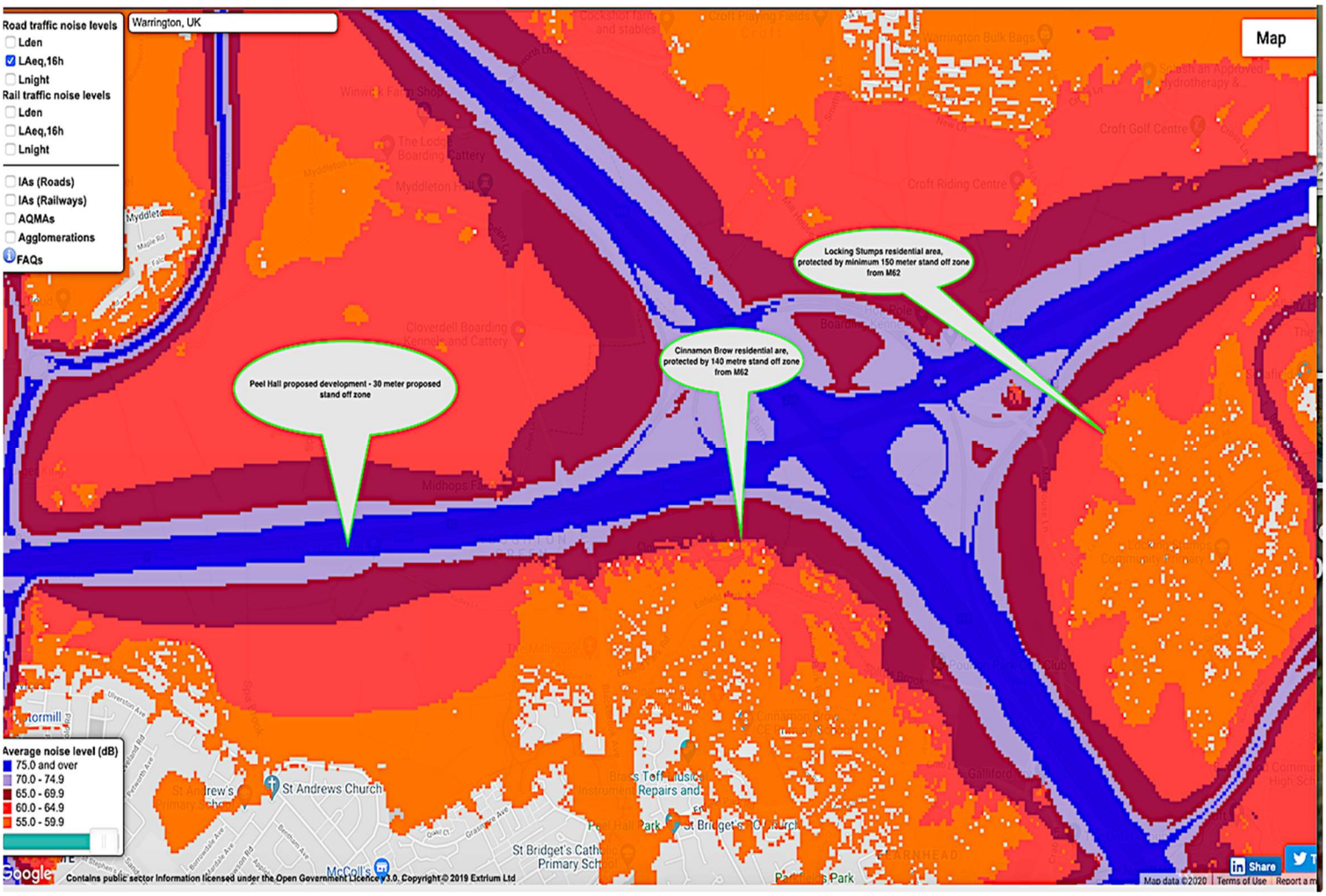


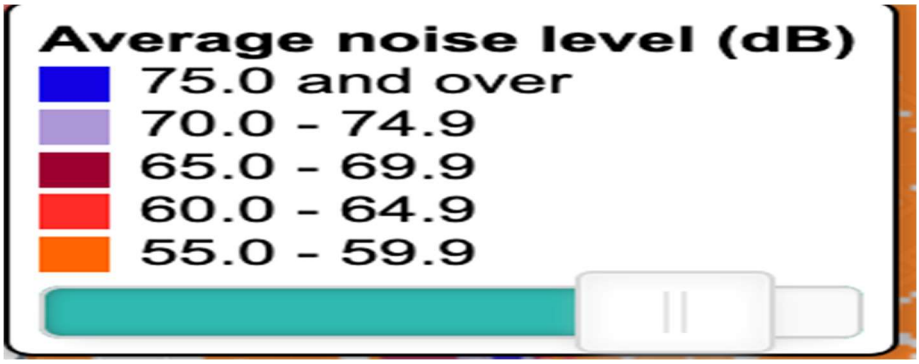
5.11 Defra Noise mapping comparison between the neighbouring communities highlight the significant noise generated both day and night in all three neighbourhoods, however the set back area at Cinnamon Brow and Locking Stumps assists in the reduction of noise to the nearest dwellings. A bare minimum set back is proposed at Peel Hall.

5.11.1 The 140 -150 metre stand off distances at Cinnamon Brow and Locking Stumps still allow 100 percent of the motorway traffic noise to permeate through the gaps between existing massing.

5.12

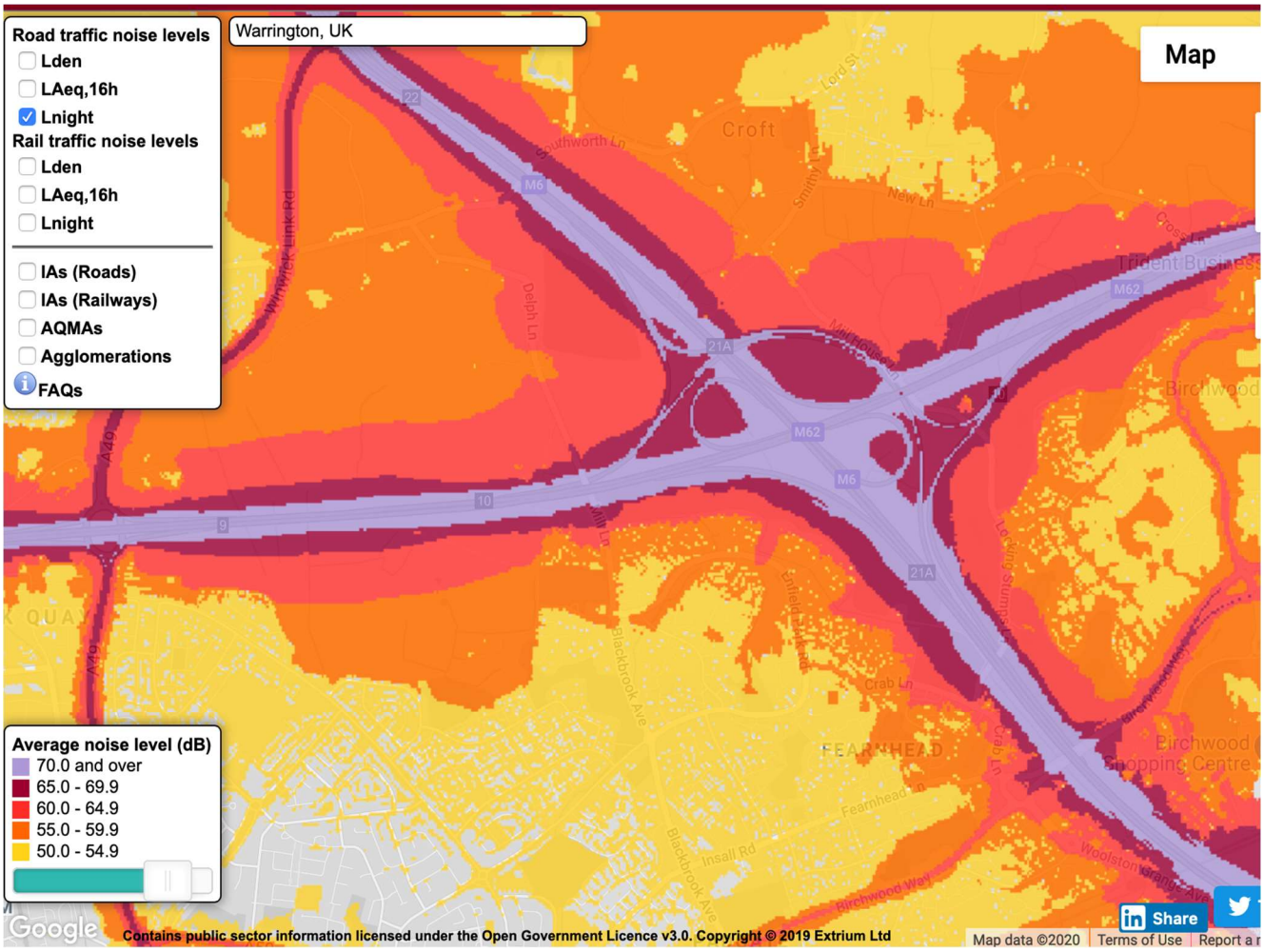
Noise mapping comparison of Peel Hall, Cinnamon Brow and Locking Stumps –LAeq, 16hr



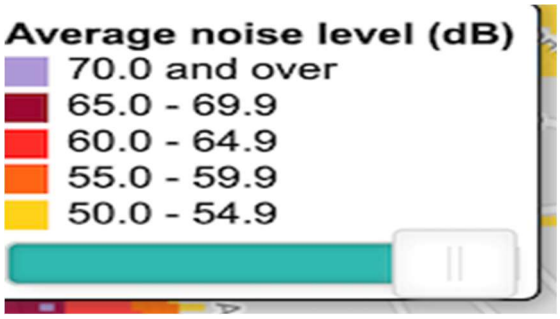


5.13 **LAeq**,16h (UK Government Environmental **Noise** Definition), is the equivalent continuous **sound** level in dB(A) that, over the period 07:00-23:00 hours, contains the same **sound** energy as the actual fluctuating **sound** that occurred in that period

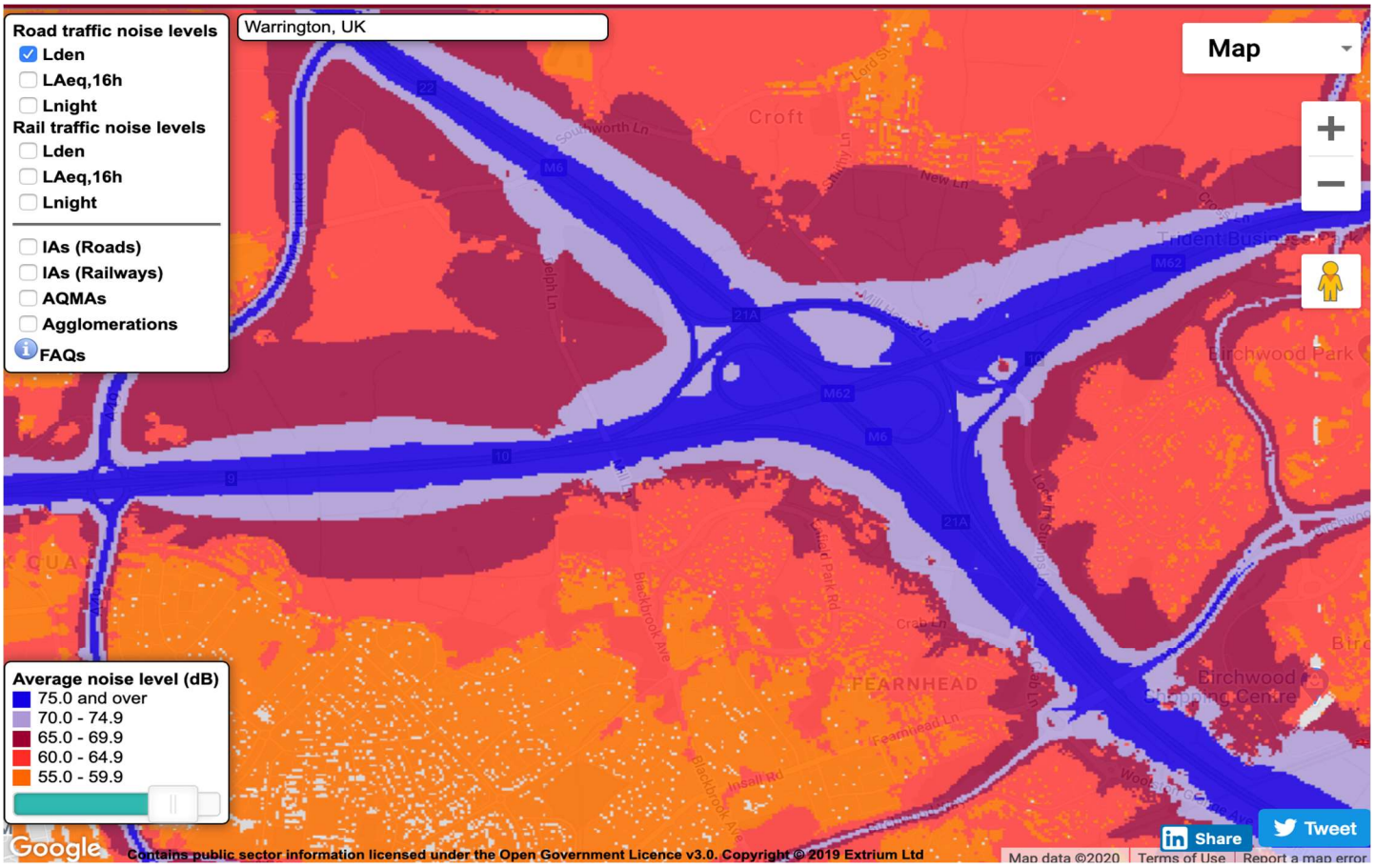
Noise mapping comparison of Peel Hall, Cinnamon Brow and Locking Stumps –Lnight



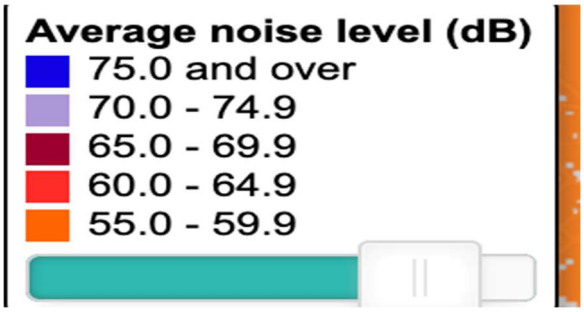
5.14 **Lnight : night noise level**, the A-weighted, Leq (equivalent noise level) over the 8 hour night period of 23:00 to 07:00 hours, also known as the **night noise indicator**.



5.15 Noise mapping comparison of Peel Hall, Cinnamon Brow and Locking Stumps – LDEN Average Sound over 24 hours



5.16 The **Lden** (Day Evening Night **Sound** Level) or CNEL (Community **Noise** Equivalent Level) is the average **sound** level over a 24 hour period, with a penalty of 5 dB added for the evening hours or 19:00 to 22:00, and a penalty of 10 dB added for the nighttime hours of 22:00 to 07:00.

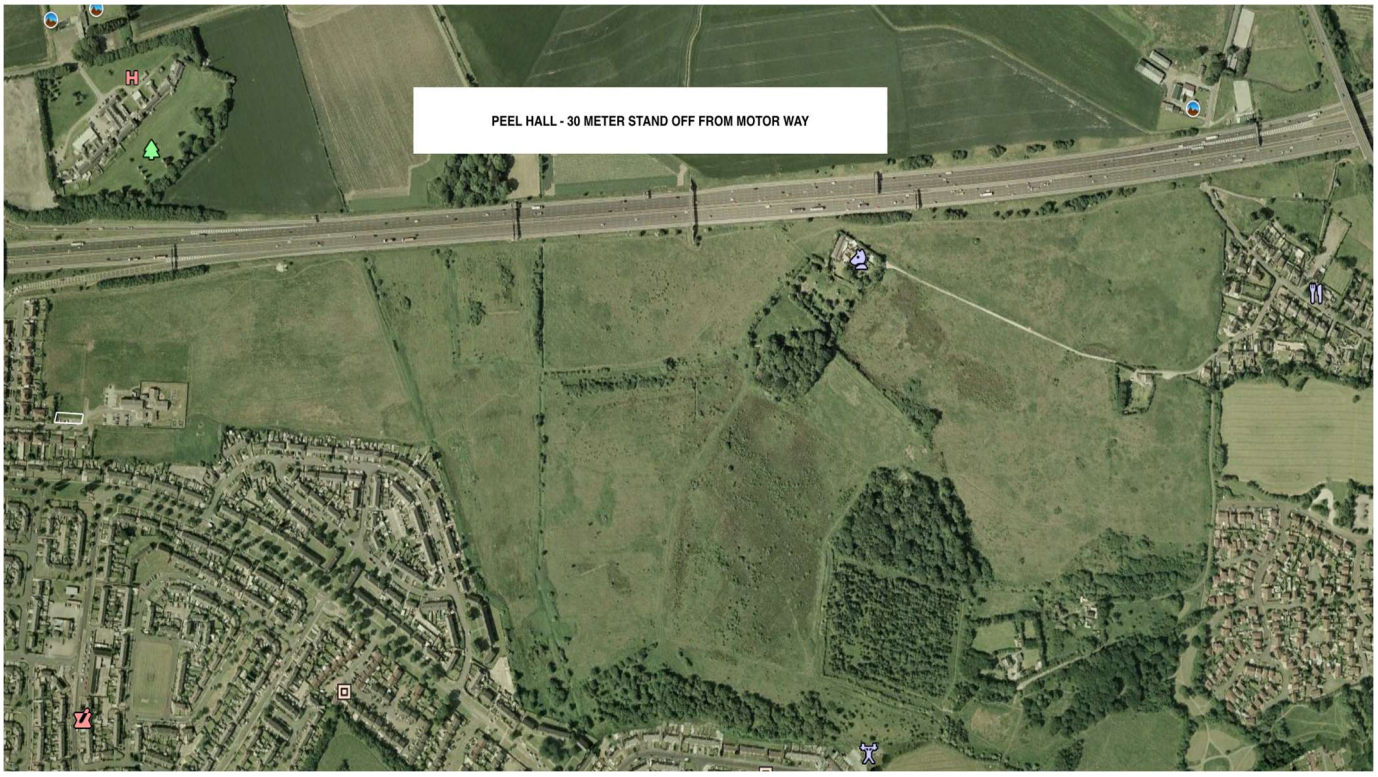


5.17 Cinnamon Brow 140 Metre set back from motorway.

5.18 Locking Stumps 150 Metre set back from the motorway

5.19

PEEL HALL PROPOSED 30 - 50 METRE SET BACK



6 ProPG

6.1 Good acoustic design is not just compliance with recommended internal and external noise exposure standards. Good acoustic design should provide an integrated solution whereby the optimum acoustic outcome is achieved, without design comprises that will adversely affect living conditions and the quality of life of the inhabitants or other sustainable design objectives and requirements. (Appendix 5 Pro PG 2.21)

6.2 Using fixed unopenable glazing for sound insulation purposes is generally unsatisfactory and should be avoided; occupants generally prefer the ability to have control over the internal environment using openable windows, even if the acoustic conditions would be considered unsatisfactory when open. Solely relying on sound insulation of the building envelope to achieve acceptable acoustic conditions in the new residential development when other methods could reduce the need for this approach is not regarded as good acoustic design. Any reliance upon building envelope insulation with closed windows should be justified in supporting documents. (Appendix 5 ProPG - 2.22) The Planning Practice Guidance also identifies that if proposed noise mitigation relies on windows being kept closed this may have an effect on living conditions.

6.3 Façade insulation and special glazing may help to reduce internal noise, however, there are no secondary beneficiaries and outdoor areas remain unaffected by this measure.

6.4 Paragraph 30-005 of Planning Practice Guidance (PPG) sets out a noise exposure hierarchy. Where the boundary to a significant observed effect level would be crossed, the planning process should be used to avoid such an effect occurring. In similar vein, PRO PG advises that an Acoustic Design Statement should clearly demonstrate that a significant adverse effect would be avoided in the finished development.

Noise Hierarchy Table

Response	Examples of outcomes	Increasing effect level	Action
No Observed Effect Level			
Not present	No Effect	No Observed Effect	No specific measures required
No Observed Adverse Effect Level			
Present and not intrusive	Noise can be heard, but does not cause any change in behaviour, attitude or other physiological response. Can slightly affect the acoustic character of the area but not such that there is a change in the quality of life.	No Observed Adverse Effect	No specific measures required
Lowest Observed Adverse Effect Level			
Present and intrusive	Noise can be heard and causes small changes in behaviour, attitude or other physiological response, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a small actual or perceived change in the quality of life.	Observed Adverse Effect	Mitigate and reduce to a minimum
Significant Observed Adverse Effect Level			
Present and disruptive	The noise causes a material change in behaviour, attitude or other physiological response, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	Significant Observed Adverse Effect	Avoid
Present and very disruptive	Extensive and regular changes in behaviour, attitude or other physiological response and/or an inability to mitigate effect of noise leading to psychological stress, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory.	Unacceptable Adverse Effect	Prevent

6.5 **Noise Policy Statement for England (NPSE)**

6.5.1 SOAEL –Significant Observed Adverse Effect Level

This is the level above which significant adverse effects on health and quality of life occur. (Appendix 14 - 2.21 NPSE)

6.5.2 It is not possible to have a single objective noise-based measure that defines SOAEL that is applicable to all sources of noise in all situations. Consequently, the SOAEL is likely to be different for different noise sources, for different receptors and at different times. It is acknowledged that further research is required to increase our understanding of what may constitute a significant adverse impact on health and quality of life from noise. However, not having specific SOAEL values in the NPSE provides the necessary policy flexibility until further evidence and suitable guidance is available. (Appendix 14 - 2.22 NPSE)

6.5.3 The first aim of the Noise Policy Statement for England Avoid significant adverse impacts on health and quality of life from environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development.2.23The first aim of the NPSE states that significant adverse effects on health and quality of life should be avoided while also taking into account the guiding principles of sustainable development (Appendix 14 - 2.22 NPSE)

6.5.4 The second aim of the Noise Policy Statement for England

6.5.5 Mitigate and minimise adverse impacts on health and quality of life from environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development.

6.5.6 The second aim of the NPSE refers to the situation where the impact lies somewhere between LOAEL and SOAEL. It requires that all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development (paragraph 1.8). This does not mean that such adverse effects cannot occur. (Appendix 14 - 2.24 NPSE)

6.5.7 The third aim of the Noise Policy Statement for England

6.5.8 Where possible, contribute to the improvement of health and quality of life through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development.

6.5.9 This aim seeks, where possible, positively to improve health and quality of life through the pro-active management of noise while also taking into account the guiding principles of sustainable development (paragraph 1.8), recognising that there will be opportunities for such measures to be taken and that they will deliver potential benefits to society. The protection of quiet places and quiet times as well as the enhancement of the acoustic environment will assist with delivering this aim. (Appendix 14 - 2.25 NPSE)

6.6 The Acoustic Design Statement submitted by the Appellant does not demonstrate that a Significant Observed Adverse Effect Level would be avoided at Peel Hall.

6.7 There is no evidence that the proposed noise attenuation would achieve the necessary noise reduction, at those “front line apartments,” to ensure there would be no unacceptable risk of future occupiers experiencing intrusive and disruptive noise and disturbance to an extent that significant adverse effects on health and quality of life could occur.

6.8 When considering redevelopment of larger green field sites, if land is located near busy roads,

any potential acoustic opportunities should be considered at the concept planning stage. At this stage there is more opportunity to address acoustic matters, for example through set backs, building orientation, layout, building height controls or noise barrier.
(Appendix 6 - 3.2 ProPG:Planning & Noise, New Residential Development – Supplementary Document 2 Good Acoustic Design)

6.9 The Appellants Acoustic Design Statement has included, set back, building massing, building height and a noise barrier, however, it is not sufficient merely to mention them in a report. The report needs to evidence and clearly demonstrate that the proposals are sound. The Acoustic Design Statement submitted by the appellant clearly demonstrate, that a **significant adverse noise impact has <u>not</u> been avoided in the finished development**.

6.10 There are no supporting documents justifying the need to compromise on living conditions or quality of life of future residents. Warrington is not so desperate for apartments in this location that we have to approve unacceptable living conditions in order to achieve a poorly designed, maximum size, development with absolute minimum standards.

7 PPG24 & WBC Noise Categories

7.1 Assessment of the noise exposure categories for dwellings has not been included in the noise report. As with many other Local Authorities, Warrington Borough Council continues to use PPG24 Recommended Noise Exposure Categories for New Dwellings Near Existing Noise Sources. Planning Policy Guidance 24: Planning & Noise–Annex 1 (Appendix 15)

Significantly more monitoring points and monitoring periods along the whole length of the site's north boundary with the M62 motorway is needed to establish the relevant noise category for the site.

7.2

Noise Exposure Categories For Dwellings

1. When assessing a proposal for residential development near a source of noise, local planning authorities should determine into which of the four noise exposure categories (NECs) the proposed site falls, taking account of both day and night-time noise levels. Local planning authorities should then have regard to the advice in the appropriate NEC, as below:

NEC	
A	Noise need not be considered as a determining factor in granting planning permission, although the noise level at the high end of the category should not be regarded as a desirable level.
B	Noise should be taken into account when determining planning applications and, where appropriate, conditions imposed to ensure an adequate level of protection against noise.
C	Planning permission should not normally be granted. Where it is considered that permission should be given, for example because there are no alternative quieter sites available, conditions should be imposed to ensure a commensurate level of protection against noise.
D	Planning permission should normally be refused.

7.3

Noise Levels[0] Corresponding To The Noise Exposure Categories For New Dwellings $L_{Aeq,T}$ dB				
	Noise Exposure Category			
Noise Source	**A**	**B**	**C**	**D**
road traffic				
07.00 - 23.00	<55	55 - 63	63 - 72	>72
23.00 - 07.00[1]	<45	45 - 57	57 - 66	>66
rail traffic				
07.00 - 23.00	<55	55 - 66	66 - 74	>74
23.00 - 07.00[1]	<45	45 - 59	59 - 66	>66
air traffic[2]				
07.00 - 23.00	<57	57 - 66	66 - 72	>72
23.00 - 07.00[1]	<48	48 - 57	57 - 66	>66
mixed sources[3]				
07.00 - 23.00	<55	55 - 63	63 - 72	>72
23.00 - 07.00[1]	<45	45 - 57	57 - 66	>66

The noise levels reported by Miller Goodall (ESA2 Vol.9 -N3 Monitoring Data) clearly indicate Peel Hall site to be in Category D.

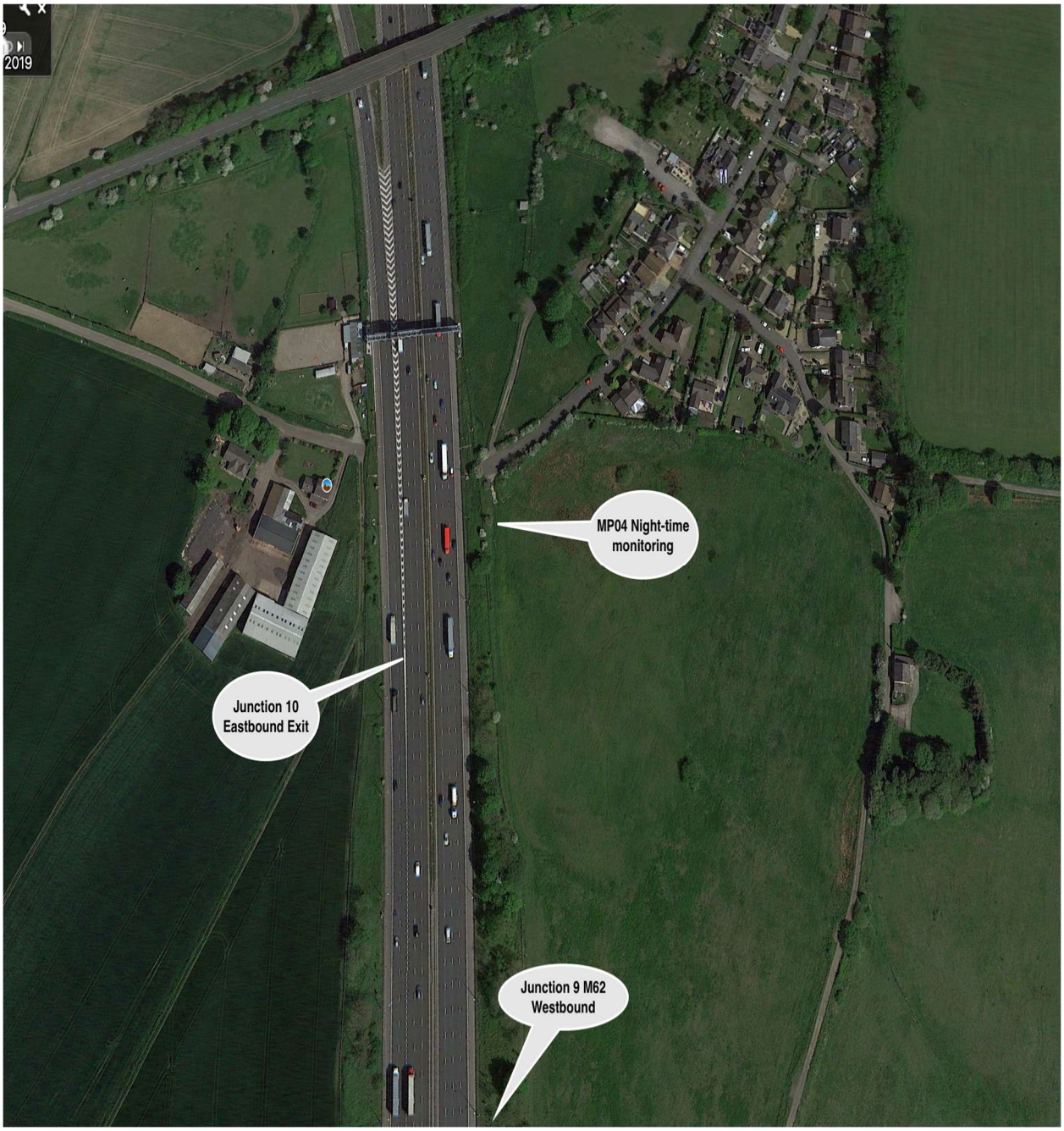
8. ROAD CLOSURES

The information contained in this proof of evidence, was based on the acoustic report by Miller Goodall (ESA2 Vol 8 & 9), however, further investigation has revealed there were road closures and road works, along the entire length of the site's north boundary adjacent to the M62 motorway at time of Miller Goodall night-time noise monitoring.

8.1 Traffic conditions, motorway road closures, lane closures and speed reductions are not difficult to check, prior to sensitive noise monitoring.

8.2 Monitoring at MP04 from 7.00am to 8.00 a.m. is the only noise data captured once traffic resumed. As previously stated MP04 is 4.5 meters above the motorway and 16 meters from the motorway edge. Volumes recorded, whilst not at the noisiest part of the site, still confirm the extensive noise levels at the site.

8.3 The noise volume recorded during this short period reached 97 dB. At this level of noise, it needs to be considered whether adequate noise attenuation is likely to be achievable given the size of the site and the limitations due to the surrounding noise sources and various other restrictions that apply to the site.



8.4 **23/05/2019 20:00 to 24/05/19 06:00 – 00082550-02**

M62 East & Westbound Junction 9 hard shoulder and lane one closures for electrical works. Speed limit reduced to 50 m.p.h.

8.5 **23/05/2019 22:00 to 24/05/19 06:00 – 0089057-003**

M62 East & Westbound Junction 9 to 10 lane and total closures for electrical works. . Speed limit reduced to 50 m.p.h.

8.6 **23/05/2019 21:00 to 24/05/19 06:00 – 00104623-009**

Eastbound from Junction 10 to Junction 12 **total road closure** due to improvements. i.e. **No** eastbound traffic from junction 10 to junction 12 for 9 hours, during monitoring period.

8.7 Miller Goodall's computer noise modelling used calibrated on-site measured noise data to reach the conclusion that the site is suitable for residential development. The on-site measured noise data cannot be an accurate record of the true noise level of the night-time noise on the M62 motorway, the data capture was done during road and lane closures**. This evidence is flawed and does not reflect the true noise measurement of the M62 motorway.**

8.8 MP04 overnight noise monitoring evidence is therefore inadmissible.
(ESA2 Volume 9: 5Noise 11.3 Monitoring Data)

8.9 Table 11.11 Summary of Monitoring Data is inaccurate and therefore inadmissible evidence. (ESA2 Volume 8)

8.10 Table 11.13 Predicated worst-case facade levels is totally inaccurate and therefore inadmissible evidence. (ESA2 Volume 8)

8.11 Highways England confirmed the following lane closures and speed reductions in place between Junction 9 & 12 of the M62 motorway on 22nd/23rd/24th May 2019. (Appendix 16)

EVENT_NUMBER1	SCHEDULE_PLANNED_STARTDATE	SCHEDULE_PLANNED_ENDDATE	ROAD	DESCRIPTION	NOTES	SCHEDULED_EVENT
00082550-002	23/05/2019 20:00	24/05/2019 06:00	M62 (East Bound)	M62 East and Westbound Junction 9 exit slips Hardshoulder and lane one closures for electrical works		Hardshoulder, lane 1 Eastbound Jct 9 exit slip
00089057-003	23/05/2019 22:00	24/05/2019 06:00	M62 (East Bound)	M62 East and Westbound junction 9 to 10 lane and total closures for electrical works		M62 Junction 9 exit westbound Diversion Route
00104623-009	22/05/2019 21:00	23/05/2019 06:00	M62 (East Bound)	M62 Eastbound Junction 10 to 12 Total closure due to Improvements	M60 MP 26/6 - MP 43/7 M6 - MP 308/1 - MP 307/4 M6 - MP 306/6 - MP 307/3 M62 J9 Entry slip M62 J11 Exit & Entry slip	M62 Junction 10 to 12 Eastbound - Total Closure
00104623-009	23/05/2019 21:00	24/05/2019 06:00	M62 (East Bound)	M62 Eastbound Junction 10 to 12 Total closure due to Improvements	M60 MP 26/6 - MP 43/7 M6 - MP 308/1 - MP 307/4 M6 - MP 306/6 - MP 307/3 M62 J9 Entry slip M62 J11 Exit & Entry slip	M62 Junction 10 to 12 Eastbound - Total Closure

8.12 Total road (Junction 10-12 Eastbound) and lane closures (East & West bound) with speed reductions to 50 m.p.h. would have a **significant impact** on the noise data collected and used by Miller Goodall in the preparation of the Appellants Noise Assessment.

8.13 The night-time Indicative Facade Assessment (ESA2 Volume 9 Appendix 11.4) is based on **incorrect** information and is not a true assessment of the actual noise.

8.14 Given the nature of the appeal site and the obvious significant constraints on residential development upon it, the noise assessment undertaken by the appellant is not sufficiently robust to establish with any certainty what the true noise environment for the site is now or what it would be in the future.

9 PEEL HALL KENNELS & CATTERY

9.1 The acoustic report omits to follow NPPF 182 "Planning policies and decisions should ensure that new development could be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or **'agent of change'**) should be required to provide suitable mitigation before the development has been completed."

9.2 The acoustic report fails to include or assess the existing noise from Peel Hall Kennels.

An accurate acoustic report cannot be complete unless all noise sources are included in the assessment.

9.3 Peel Hall Kennels & Cattery is a purpose built Commercial Boarding Kennel. Licenced by Warrington Borough Council for 56 dogs and 20 cats. The business has been in operation since 1999. Both kennel and cattery buildings were built to the Government Model Licence Conditions and Guidance.

9.4 The Appellant's documents red ring Peel Hall Farm as excluded from the proposed planning appeal. The Commercial operation of the Boarding Kennels is not identified. The addition of a red ring on a map, around land not owned by the Appellant, does **not** absolve its responsibility of identifying and mitigating any impact the 'red ringed' operation may have on the proposed new development and visa versa. A red ring does **not** permit the Appellant to ignore those parts of legislation; NPPF Para: 170 Para: 180 Para: 182 or to comply with the Agent of Change principle and WBC policy QE6, that apply to the "red ringed" area as a consequence of the proposed development.

9.5 It is notoriously difficult to obtain planning permission for Boarding Kennels close to residential property. Noise and its impact on nearby properties both residential and commercial are the number one reason for refusal. Boarding Kennels are classed for planning purposes as Sui Generis and as such demand careful consideration with regard to location.

9.6 A recent application in Warrington for a Dog Day Care Centre near commercial premises was refused on noise grounds at a planning appeal. (Appendix 17- APP/M06551/W/173181021)

9.7 In his report to the Secretary of State for Housing Communities and Local Government, dated October 2018, the Inspector at paragraph 13.93.

"I have no reason to doubt that Peel Hall Farm is run as a successful boarding kennels. Nor do I doubt that when the kennels are full the boarded dogs can be noisy. Again, if planning permission were to be granted very careful consideration would need to be given at the relevant reserved matters stage(s) to the relationship between any new dwellings and Peel Hall Farm. One would need to be fully assured that the living conditions of any future occupiers would not be adversely affected and that, equally importantly, the business would not suffer as a result of complaints in relation to noise. The Framework is explicit that: Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development … _in its vicinity, the applicant (or agent of change') should be required to provide suitable mitigation before the development has been completed."

9.8 Existing noise and its mitigation are a crucial part of this planning appeal. Effective noise mitigation cannot be applied unless all site noise sources are correctly assessed and proposed mitigation methods identified.

9.9 National Planning Practice Guidance notes that the potential effect of a new residential development being located close to an existing business, giving rise to noise should be carefully considered; existing noise levels from the business may be regarded as unacceptable by the new residents and subject to enforcement action.

9.10 Recent case law highlights the importance of addressing the " agent of change" principle in planning decision-making.

- Ornua Ingredients Ltd) v. Herefordshire Council
  Case No: CO/454/2018 (Appendix 18)
- Cemex (UK Operations) Ltd v Richmondshire District -
  Case No: CO/1639/2018 (Appendix 19)

These cases highlight the need to have regard to National Planning Policy and Planning Practice Guidance when making planning decisions. It emphasises the importance of preventing situations arising, as a result of introducing noise-sensitive developments and of prohibitive restrictions being placed on existing noise-generating premises. It highlights the

importance of designing new developments in a way that minimises noise complaints that could lead to prohibitive restrictions being place on existing operations.

10 Human Rights

10.1 Article 8 of the Human Rights Act, states that a person has the substantive right to respect for their private and family life. A public authority needs to take positive steps to protect homes from serious noise pollution.

10.2 Development of new homes on this site with unacceptable noise levels and adjacent to an AQMA area would deny new residents their rights. (Appendix 20 Human Rights)

11 NPPF

11.1 Planning policies and decisions should contribute to and enhance the natural and local environment by:

11.2 e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. NPPF 170 (e)

11.3 Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including the cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development in doing so they should:

11.4 a) mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life. NPPF 180(a)

12 CONCLUSION

1 Careful consideration should be given to whether noise reduction is likely to be achievable, given the size of the site and the limitations due to the surrounding noise sources and various other restrictions of the site.

2 Overnight noise modelling of the north boundary during motorway road closures invalidates the data captured.

3 The number of monitoring locations and monitoring periods was totally inadequate to capture the true noise level from the sites extensive north boundary with the M62 motorway.

4 The north boundary of the site and its relationship to the kerbside of the M62 motorway varies from 2 meters in width to 25 meters. This important detail was omitted from the noise report.

5 The existing constraints on the north boundary, high-pressure gas main, utility pumping station, watercourses, pedestrian bridge, public right of way, all impact the location of a barrier, but this information is excluded from the noise report.

6 The actual location of the barrier and its relationship to either the kerbside of the motorway, the site boundary or the first noise receptor was not included in the noise report. Without this information it is impossible to assess the actual noise level that would reach the dwellings closest to the north boundary, or to assess if mitigation is actually possible.

7 The topography of the site plays a major part in noise mitigation, the land varies in height by 10 metres, and this has not been included in the noise assessment.

8 Building massing is described as a tight configuration to provide a further noise barrier. The noise assessment has failed to consider the numerous gaps where no massing is possible.

9 It has not been clearly demonstrated that the proposed noise mitigation would avoid a significant noise impact remaining on the site.

10 The build out of the site could take up to 15 years, with 2 or 3 different development companies involved. The indicative highways build out plan shows development adjacent to the M62 motorway with 7 different plots and indicative build out in years 1, 3, 4, 5, 8 and a 10. There is a risk that only parts of the site would be developed, this would risk the sustainability of the whole site, and impact new and existing residents.

11 There is no evidence that the proposed noise attenuation measures could be implemented. Without suitable noise attenuation this site is unsuitable for development as proposed.

12 The submitted proposals do not justify development where the consequence would be to produce unacceptable living conditions and amenity.

13 The noise report submitted by the appellant lacks sufficient detail and robustness in the base line surveys, with key omissions and as such the noise report does not stand scrutiny and is inadequate to demonstrate that the proposed development would not give rise to significant adverse noise impacts.

14 The noise report is not fit for purpose, there is no confidence the site is suitable for a development of the size proposed. 1200 dwellings is unrealistic in this location when all of the site constraints are considered. A significant reduction in the overall proposal for entire site; with an adequate stand off from the M62 motorway could be considered.

15 A much more accurate and detailed assessment of the entire site is required to ascertain the site suitability for development.

16 The noise report fails to recognise all noise sources that would impact development. The assumption that the barrier is indefinitely long is unreasonable and substantially overestimates the potential mitigation provided by the proposed screen. This undermines the Appellants conclusions and methodology.

17 This matter is too critical to fall back on condition and needs to be assessed and designed for this purpose prior to permission being granted to ensure the noise mitigation can be met.

Appendix

1	Environmental Protection UK
2	World Health Organisation
3	Defra Road Mapping
4	Design for Roads & Bridges
5	Pro Pg
6	Pro Pg Supplementary Document 2
7	Defra Noise Action Plan: Roads
8	Highways England
9	Department for Transport DfT Circular
10	National Grid Map
11	National Grid Easement
12	United Utilities
13	W.B.C. Environmental Protection SPD
14	Noise Planning for England
15	PPG24
16	Highways England – Road Works
17	Planning Appeal APP/M06551/W/173181021
18	Case No: CO/454/2018 Ornua Ingredients v Herefordshire Homes
19	Case No: CO/1639/2018 Cemex (UK) Operations Ltd v Richmondshire
20	Human Rights
21	Embankment Heights - Images

1 Environmental Protection UK

NOISE & HEALTH

Noise can cause annoyance and fatigue, interfere with communication and sleep, reduce efficiency and damage hearing. The World Health Organisation recommends a guideline level of 30 dB LAeq for undisturbed sleep, and a daytime level for outdoor sound levels of 50dB to prevent people from becoming "moderately annoyed".

Physiological effects of exposure to noise include constriction of blood vessels, tightening of muscles, increased heart rate and blood pressure and changes in stomach and abdomen movement. The effects of exposure to noise are personal as hearing sensitivity varies. Exposure to constant or very loud noise – either occupational or leisure – can cause temporary or permanent damage to hearing.

There is an increasing body of research linking prolonged exposure to transport noise to health impacts. A major impact of noise is sleep disturbance – and disrupted sleep has been linked to effects on cardiac health. A number of reports have made direct links between transport noise and cardiac health. Most work carried out has looked at impacts of aviation noise. There are links between children's concentration too. Much of this work has been carried out in Europe.

IN THIS SECTION

- Noise Action Week Summary
- **Noise & Health**
- Our Work
- Committee Activities

2 World Health Organisation

Noise

- News
- Events
- Policy
- Environmental Noise Guidelines
- Data and statistics
- Publications
- Contact us

Noise

Excessive noise seriously harms human health and interferes with people's daily activities at school, at work, at home and during leisure time. It can disturb sleep, cause cardiovascular and psychophysiological effects, reduce performance and provoke annoyance responses and changes in social behaviour.

Traffic noise alone is harmful to the health of almost every third person in the WHO European Region. One in five Europeans is regularly exposed to sound levels at night that could significantly damage health.

WHO/Europe uses evidence on the health effects of noise to identify the needs of vulnerable groups and to offer technical and policy guidance to protect health.

62 57

3 Defra Road Mapping

Department
for Environment
Food & Rural Affairs

Strategic noise mapping

Explaining which noise sources were included in 2017 noise maps

July 2019

Major roads

Major Roads are defined under the END as regional or national sections of road which have a bi-directional flow of 3 million vehicle passages or more per year. The Major Roads for Noise Mapping 2017 were identified using the Department for Transport's Transport Statistics Major Roads data (see Figure 3 below).

National level scoping indicated that changes to noise exposure on the road network were likely to have occurred fairly widely. Mapping for the road network in England was therefore updated using 2015/16 traffic flow data where available. Population exposure data has also been updated using 2015 mid-census estimates.

The Geographic Information Systems (GIS) data on noise from roads in England can be found at:

Road Noise Indicator	Weblink
L_{DEN}	https://environment.data.gov.uk/dataset/fd1c6327-ad77-42ae-a761-7c6a0866523d
$L_{Aeq,16hr}$	https://environment.data.gov.uk/dataset/b9c6bf30-a02d-4378-94a0-2982de1bef86
L_{Night}	https://environment.data.gov.uk/dataset/cc48e728-602a-4e8a-9221-49f661ab58f8

4 Design for Roads & Bridges

VOLUME 11 ENVIRONMENTAL ASSESSMENT
SECTION 3 ENVIRONMENTAL ASSESSMENT TECHNIQUES

PART 7

HD 213/11 – REVISION 1

NOISE AND VIBRATION

SUMMARY

This revised Standard provides guidance on the assessment of the impacts that road projects may have on levels of noise and vibration. This revision replaces the previous Standard, and includes updated advice on calculating night time noise levels, determining the extent of the study area and selecting appropriate traffic speed data. Where appropriate, this standard may be applied to existing roads.

INSTRUCTIONS FOR USE

1. Remove existing contents pages for Volume 11 and insert new contents pages for Volume 11 dated November 2011.

2. Remove HA 213/11 dated February 2011 from Volume 11, Section 3 and archive as necessary.

3. Insert HD 213/11 into Volume 11, Section 3, Part 7.

4. Please archive this sheet as appropriate.

Note: A quarterly index with a full set of Volume Contents Pages is available separately from The Stationery Office Ltd.

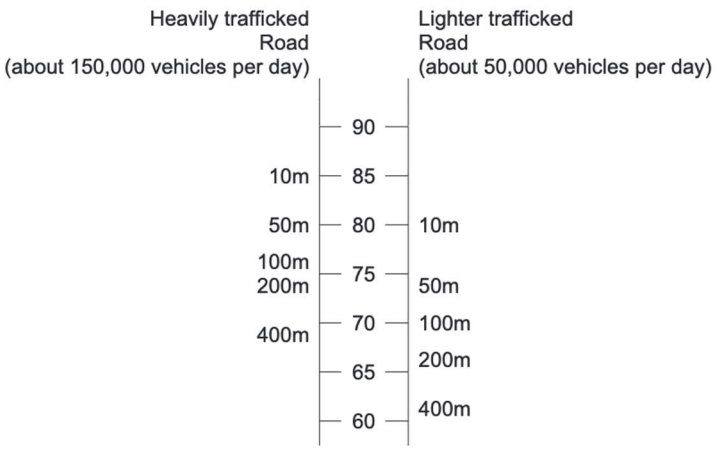


Figure A3.1 – Example of Typical Traffic Noise Levels, $L_{A10,18h}$

A3.8 A further advantage in adopting a logarithmic scale is that the response of the human hearing system to changes in noise level is logarithmic rather than linear in behaviour. Over most of the audible range, a subjective impression of a doubling in loudness corresponds to a 10 fold increase in sound energy which conveniently equates with an increase in sound pressure level of 10 dB. Doubling the energy level (for example the volume of traffic) increases the noise level by 3 dB.

A3.9 The frequency of sound is the rate at which a sound wave oscillates, measured in number of cycles per second, or Hertz (Hz). The human ear is more sensitive to frequencies important for voice communication and hearing sensitivity decreases markedly at frequencies below about 250 Hz. Frequencies below 20 Hz are usually perceived as vibration. The upper frequency limit of audibility is around 20 kHz, but decreases with age.

A3.10 Several different weightings have been proposed to convert measured sound pressure to a measure that correlates with perceived loudness in different circumstances. The 'A' weighting is by far the most commonly used and correlates well with the perceived noisiness of road vehicles. Logically the characteristics of the weighting should be slightly different for higher level sounds.

A3.11 The noise from a traffic stream is not constant but varies from moment to moment and it is necessary to use an index to arrive at a single-figure estimate of the overall noise level for assessment purposes. The index adopted by the Government to assess traffic noise is $L_{A10,18h}$ which is the arithmetic mean of the noise levels exceeded for 10% of the time in each of the 18 one hour periods between 6am and midnight. (Note: 'A' in the subscript denotes that the sound levels have been 'A' weighted). A reasonably good correlation has been demonstrated between this index and residents' expressed dissatisfaction with traffic noise over a wide range of exposures. In addition, the prediction and measurement techniques using this index are well developed in the UK.

A3.12 A commonly used alternative index is the equivalent continuous sound level, L_{Aeq}, which is the level of a notional continuous constant noise that would deliver the same sound energy over the period of measurement as the actual intermittent or time varying noise. Using this measure, a fluctuating noise can be described in terms of a single noise level. This index is easily adapted to describing sources that consist of occasional short periods of noise interspersed with relatively long quiet periods – for example intermittent noise from industry, construction or demolition activity, and from railways and aircraft. However, it does not

5 Pro Pg

ProPG: Planning & Noise

Professional Practice Guidance on Planning & Noise

New Residential Development

May 2017

ANC Acoustics & Noise Consultants

Institute of Acoustics

Chartered Institute of Environmental Health

Stage 1: Initial Site Noise Risk Assessment

2.7 An initial noise risk assessment of the proposed development site should be conducted by a competent noise practitioner at the earliest opportunity, before any planning application is submitted. The noise risk assessment should provide an indication of the likely risk of adverse effects from noise were no subsequent mitigation to be included as part of the development proposal. It should indicate whether the proposed site is considered to pose a negligible, low, medium or high risk from a noise perspective.

2.8 The risk assessment should not include the impact of any new or additional mitigation measures that may subsequently be included in development proposals for the site and proposed as part of a subsequent planning application. In other words, the risk assessment should include the acoustic effect of any existing site features that will remain (e.g. retained buildings, changes in ground level) and exclude the acoustic effect of any site features that will not remain (e.g. buildings to be demolished, fences and barriers to be removed) if development proceeds.

2.9 The noise risk assessment may be based on measurement or prediction (or a combination) as appropriate, and should aim to describe noise levels over a "typical worst case" 24 hour day either now or in the foreseeable future. It may often be useful to liaise with the LPA regarding the most appropriate typical worst case scenario for the particular site. Care should be taken so that the risk assessment includes the combined free-field noise level from all relevant sources of transport noise that affect the site. The assessment may also include industrial/commercial noise where this is present but is "not dominant" (see below).

2.10 Figure 1 summarises the Stage 1 Initial Site Noise Risk Assessment. The figure illustrates how an initial noise risk assessment is linked with an increasing risk of adverse effect from noise and how this in turn is broadly associated with indicative noise levels derived from current guidance and experience. The indicative noise levels are intended to provide a sense of the noise challenge at a potential residential development site and should be interpreted flexibly having regard to the locality, the project and the wider context. In the final column, the initial noise risk assessment is aligned with pre-planning application guidance that highlights the increasing importance of good acoustic design as the noise risk increases.

2.11 The overall Stage 1 approach is considered to support wider Government planning and noise policy and guidance at the date of publication of this document, including the NPPF, NPSE and PPG-Noise *(see Supplementary Document 1)*.

Stage 2: Full Assessment – the four key elements

2.16 Stage 2 of the recommended approach contains four key elements to be undertaken in parallel and each is considered in turn below in the following sub-sections.

STAGE 2: FULL ASSESSMENT – THE FOUR KEY ELEMENTS

Stage 2: Element 1 – Good Acoustic Design Process

Stage 2: Element 2 – Internal Noise Level Guidelines

Stage 2: Element 3 – External Amenity Area Noise Assessment

Stage 2: Element 4 – Assessment of Other Relevant Issues

Stage 2: Element 1 – Good Acoustic Design Process

2.17 Following a good acoustic design process is an implicit part of achieving good design as required by Government planning and noise policy, set out in the NPSE and NPPF, and as outlined in ***Supplementary Document 1***.

2.18 It is imperative that acoustic design is considered at an early stage of the development control process.

2.19 A good acoustic design process takes a multi-faceted and integrated approach to achieve optimal acoustic conditions, both internally (inside noise-sensitive parts of the building(s)) and externally (in spaces to be used for amenity purposes).

2.20 Good acoustic design should avoid "unreasonable" acoustic conditions and prevent "unacceptable" acoustic conditions (these terms are defined in Element 2). Good acoustic design does not mean overdesign or gold plating of all new development but seeking to deliver the optimum acoustic outcome for a particular site.

2.21 Good acoustic design is not just compliance with recommended internal and external noise exposure standards. Good acoustic design should provide an integrated solution whereby the optimum acoustic outcome is achieved, without design compromises that will adversely affect living conditions and the quality of life of the inhabitants or other sustainable design objectives and requirements.

2.22 Using fixed unopenable glazing for sound insulation purposes is generally unsatisfactory and should be avoided; occupants generally prefer the ability to have control over the internal environment using openable windows, even if the acoustic conditions would be considered unsatisfactory when open. Solely relying on sound insulation of the building envelope to achieve acceptable acoustic conditions in new residential development, when other methods could reduce the need for this approach, is not regarded as good acoustic design. Any reliance upon building envelope insulation with closed windows should be justified in supporting documents.

2.23 Planning applications for new residential development should include evidence that the following aspects of good acoustic design have been properly considered:

2.32 The recommended internal noise level guidelines are supported by advice contained in the WHO Community Noise Guidelines (2000). More recent advice from the WHO (e.g. Table 1 in the WHO Night Noise Guidelines for Europe), indicates that more stringent control of maximum event noise levels inside buildings can avoid all risk of any detectable physiological effect (NOEL – no observed effect level). However, controlling to these values is not currently required by planning or noise policy and there is substantial uncertainty regarding any resulting significant long term pathological effects of being exposed to these lower levels.

6 Pro Pg Supplementary Document 2

ProPG: Planning & Noise

Professional Practice Guidance on Planning & Noise

New Residential Development

SUPPLEMENTARY DOCUMENT 2
GOOD ACOUSTIC DESIGN

May 2017

retrospectively applied to the development, or that may even mean that a particular development cannot proceed.

In requiring good acoustic design, there is a hierarchy of noise management measures that LPAs should encourage, including the following, in descending order of preference:

i. Maximising the spatial separation of noise source(s) and receptor(s).
ii. Investigating the necessity and feasibility of reducing existing noise levels and relocating existing noise sources.
iii. Using existing topography and existing structures (that are likely to last the expected life of the noise-sensitive scheme) to screen the proposed development site from significant sources of noise.

Whilst the general principles of good acoustic design are broadly applicable to most types of noise and many types of noise-sensitive development, the additional advice provided below relates primarily to new residential development and to noise from road and rail, specialist advice may be required for other types of noise source.

3.2 New land release

When considering redevelopment of larger greenfield or brownfield sites, or the subdivision of land located near busy roads or rail corridors, any potential acoustic opportunities and constraints should be considered at the concept planning stage. At this stage there is more opportunity to address acoustic matters for example through setbacks, building orientation, layout, building height controls or noise barriers.

In some cases, particularly for larger sites, it might be appropriate to try to design open spaces adjacent to the busy road/railway corridor to setback residential uses to reduce noise exposure. These open space areas could also include appropriate bunding to reduce adverse noise impacts across the wider site.
In other cases it may be more appropriate to locate carefully designed buildings closer to the busy road/railway corridor and use the buildings themselves to provide an acoustic shadow for the remainder of the site, the objective here would be to achieve good acoustic conditions for both internal and external spaces.

The use of modern noise modelling software, in the hands of a capable specialist, will allow a developer to predict the acoustic conditions in a number of different development scenarios, thus allowing different approaches to be explored.

3.3 Building location, design, orientation and room layout

3.4 Buildings as noise shields

On larger developments, a "barrier block" can be used to protect the residential development from noisy roads or railways. A barrier block is a building which itself forms a noise barrier. A continuous frontage (using a solid wall to extend to the boundary if necessary) is one way to lower noise levels in the rest of the property. Site planning and internal layout of buildings should also be considered. This is likely to be more easily achieved where a number of properties are being developed concurrently.

Main considerations when designing a "barrier block":

- The block should run along the edge of the site closest to and parallel to the noise source and wrap around the sides of the property to protect the sides.
- The block should preferably be used for non noise-sensitive purposes, such as for parking cars or refuse storage

3.7 Noise barriers, mounds, bunds, screens and fences

A noise barrier is often an effective way to reduce traffic or railway noise. Where space allows, raised mounds of earth can be effective noise barriers and can be enhanced by placing a low wall or fence on top. Fencing built on top of mounds can save the space a larger mound might take and reduce the amount of fencing material required.

Screening structures may include:

- An existing feature, such as a natural slope or an elevated road.
- A purpose designed feature such as a solid boundary fence.
- A purpose designed feature of the building, such as a garage or a partially enclosed carport.
- A purpose designed building which acts as a barrier block.

Topography can play a major role in determining the potential noise impact. A low rise building which is sited below the level of a noise source will be impacted less than a building which is sited above the noise source, especially if a noise barrier (e.g. a mound or wall) is provided near the source / at the top of the slope.

Careful consideration of site design can mitigate the effects for sites above a noise source by, e.g. positioning a garage in the noise affected areas and using noise walls to buffer noise. Additional care is needed when noise sources are elevated.

Solid walls and solid fences with no openings can reduce noise. Noise barriers are most effective at protecting outdoor areas and ground floor levels of buildings. Single-storey dwellings are therefore easier to shield from noise than the upper floors of two-storey dwellings. Where a gate is required in a barrier ensure it is carefully designed to minimise noise transmission. In some areas, measures to avoid graffiti should be considered when designing noise barriers.

Main considerations when designing a noise barrier (all other things being equal):

- The closer the noise barrier is to the noise source, the more effective the barrier.
- The lower the height of the development, the more effective the barrier.
- The taller the barrier, the greater the noise reduction.
- Barriers are more effective when the site slopes away from the source.
- Wider barriers tend to be more effective – barriers should ideally extend far beyond the ends of the development.
- Any holes or discontinuities in a barrier wall will significantly reduce its noise reduction ability.
- Material used should have a suitable surface density, eg a high performance barrier must have a surface density of at least 20kg/m^2.

7 Defra Noise Action Plan: Roads

Department
for Environment
Food & Rural Affairs

www.gov.uk/defra

Noise Action Plan: Roads

Environmental Noise (England) Regulations 2006

2 July 2019

Noise barriers or other similar methods

6.9 There is widespread use of barriers to limit the noise from roads. These include barriers alongside the roads themselves, landscaping and the built environment (with buildings being positioned to protect others from the source of noise). Noise barriers can reduce noise levels by up to 10 dB(A).

8 Highways England

[redacted]

Dear Ms Steen,

Thank you for your email on 9 May asking about our policy on fencing.

The existing post and rail fence alongside the M62 in Warrington is the property of Highways England. It is owned and maintained by ourselves.

Without our prior agreement, no developer is permitted to erect new fencing within the boundary of the Strategic Road Network (SRN). Neither can they remove existing Highways England fencing, to do so is an offence. We may remove any fencing erected within the SRN without permission.

Any fence a developer wishes to erect would need to be positioned within the land they own. This would not replace the post and rail fence along the M62.

I hope this information answers your questions Ms Steen. Thank you for contacting us and please get in touch if you have any other queries on this issue.

[redacted]

Kind regards,

Dianne

[redacted]

9 Department for Transport DfT Circular

DEPARTMENT FOR TRANSPORT

DfT Circular 02/2013
Department for Transport
Great Minster House, 33 Horseferry Road, London SW1P 4DR

10 September 2013

THE STRATEGIC ROAD NETWORK AND THE DELIVERY OF SUSTAINABLE DEVELOPMENT

CONTENTS

ANNEX A: SPECIAL TYPES OF DEVELOPMENT

NOISE FENCES, SCREEN FENCES, ETC

A1. For reasons of safety, liability and maintenance, with the sole exception of fences owned and provided by the Highways Agency at its own cost, all noise fences, screening and other structures must be erected on the developers land, and far enough within the developers land to enable maintenance to take place without encroachment onto highway land.

ADVERTISEMENTS

A2. The Highways Agency will not object to proposals for advertising consent for displays outside of the highway boundary of the strategic road network unless it has specific reason to consider that a hazard to road safety would be a direct consequence of the development. This would include advertisements that are located where particular attention should be given to the driving task, or where they unlawfully incorporate elements of traffic sign design, such as directional arrows. Advertisements within the highway boundary are not permitted. The Highways Agency will remove any unauthorised adverts placed within the highway boundary.

GATEWAY STRUCTURES AND PUBLIC ART

A3. The siting of gateway structures and public art within the highway boundary of the strategic road network will not be permitted for legal, safety and operational reasons. However, the siting of such features near the strategic road network may be seen as desirable to local authorities and developers. The Highways Agency is keen to support delivery of such proposals where no additional risk to road users is presented.

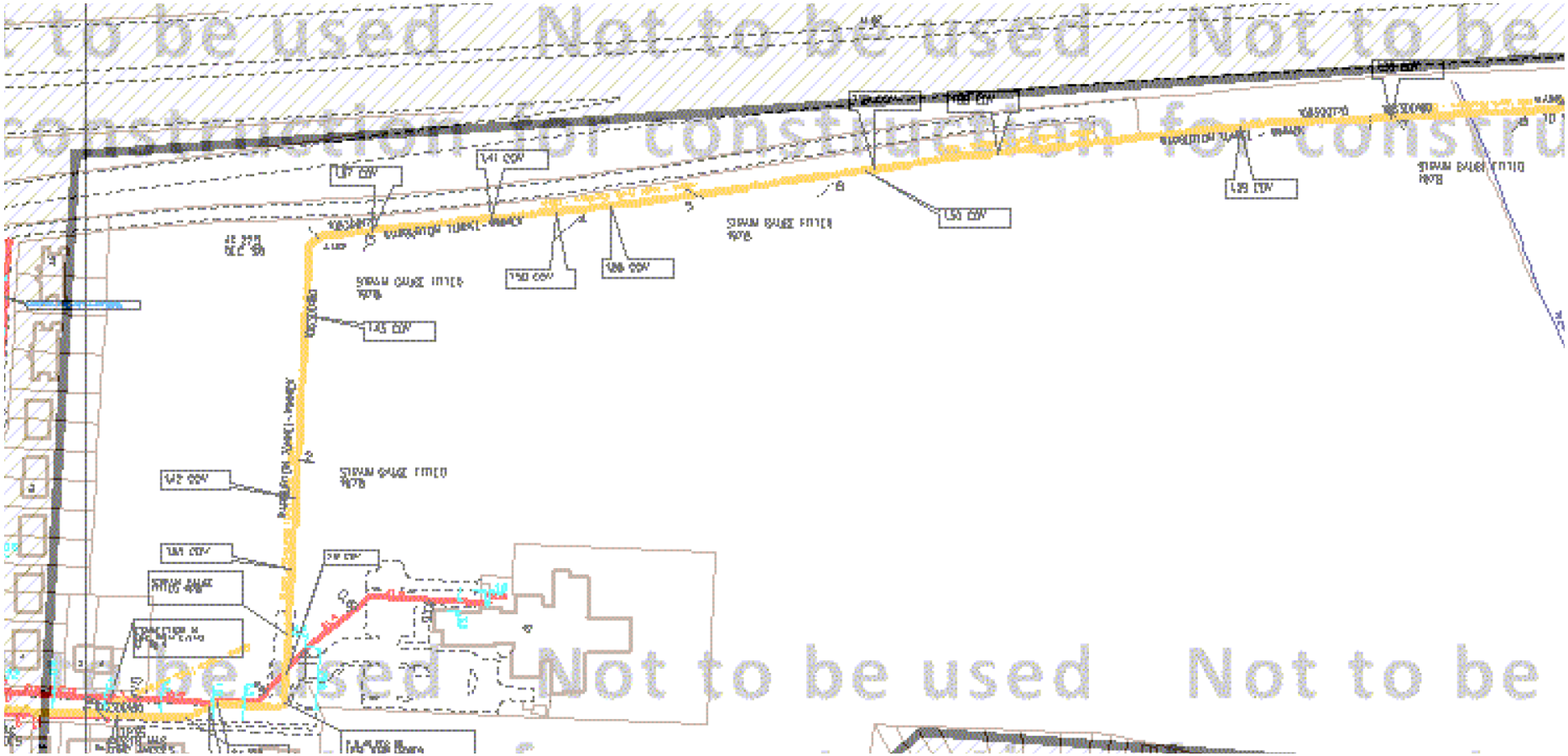
A4. Due to the wide variety of design and form that such structures may take, and therefore the scope for the potential impact on safety and operation of the strategic road network, it is not practical to address all possible considerations in this policy. The Highways Agency encourages any promoter of such a proposal that may be near to or impact on the road network to discuss design and delivery proposals at the earliest opportunity.

TELECOMMUNICATIONS EQUIPMENT

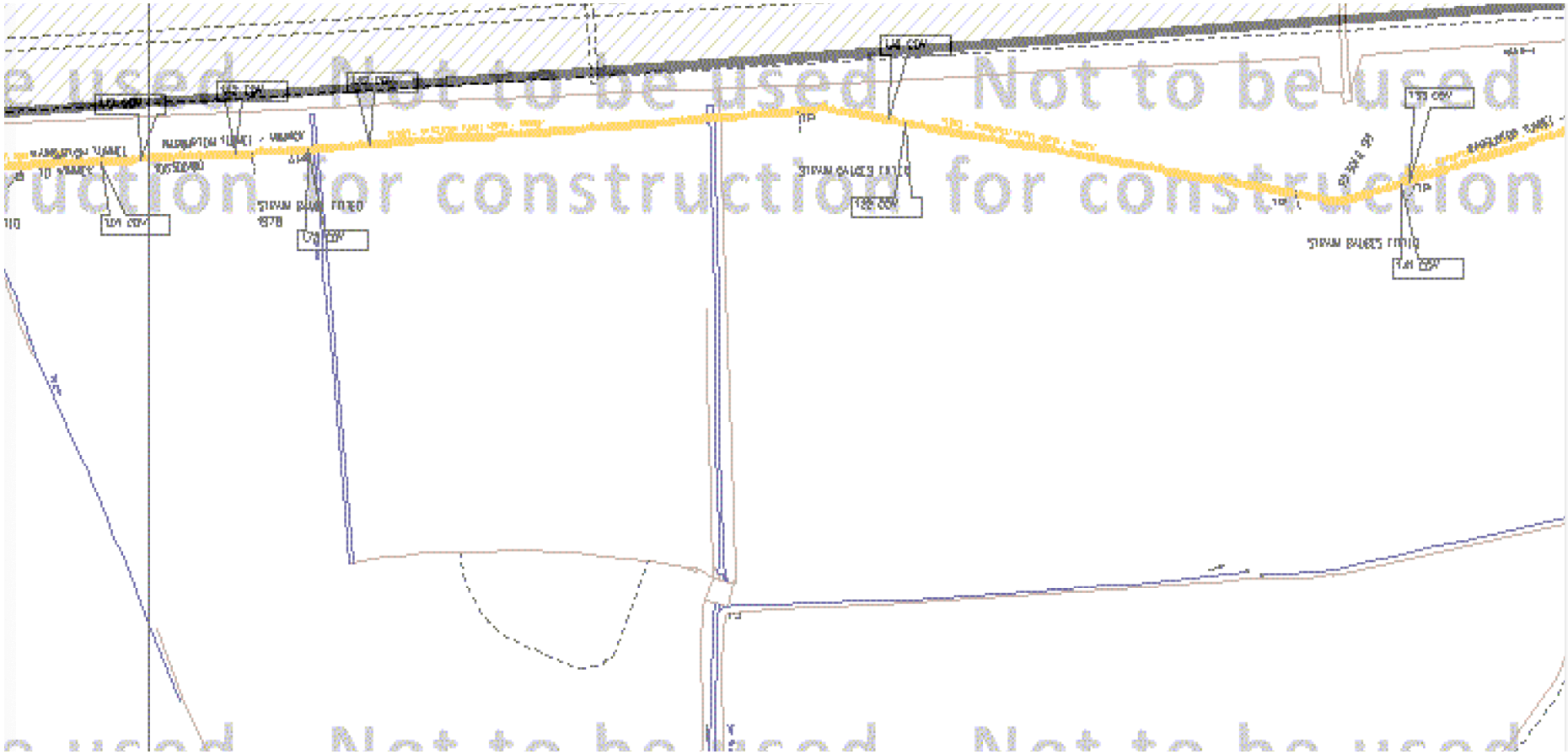
A5. Mobile Network Operators have the right under the Telecommunications Act 1984 to install equipment within the boundary of a highway that is not a protected street (as defined by section 61 of the New Roads and Street Works Act 1991) once they have obtained planning permission where required.

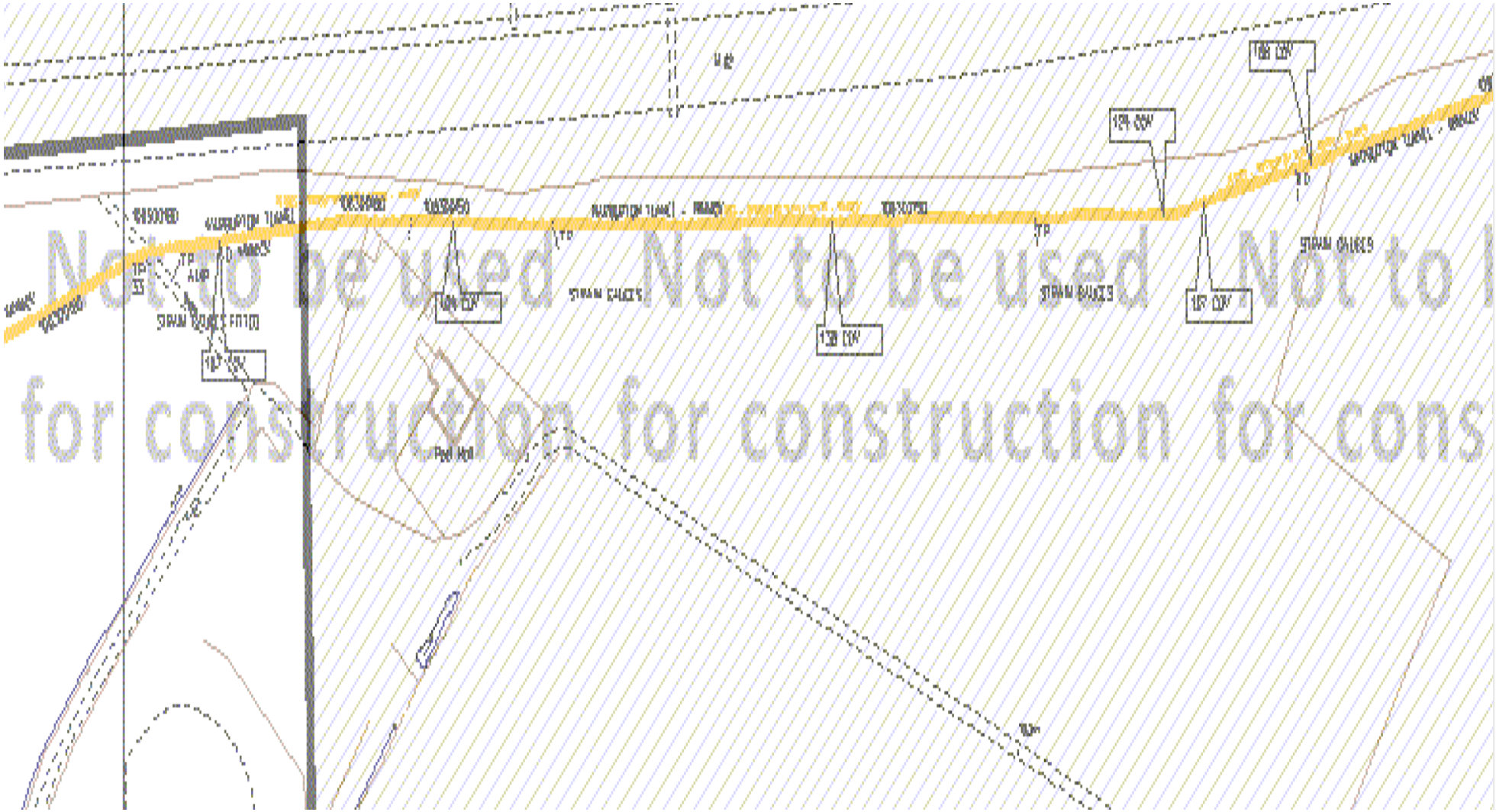
A6. Such installations must not cause a safety or environmental hazard to any road users, workers, or any third party and it must not interfere in our ability to carry out either routine or structural maintenance. Neither should any harm be caused to the long-term integrity of the highway including pavement, earthworks, structures, drainage works and ancillary equipment. Traffic signs must not be obscured. These factors should be discussed with the relevant Highways Agency's Area Manager prior to any works being undertaken.

10 National Grid Map



HIGH PRESSURE GAS MAIN – Identified by yellow line – site boundary brown line


Not to be used
for construction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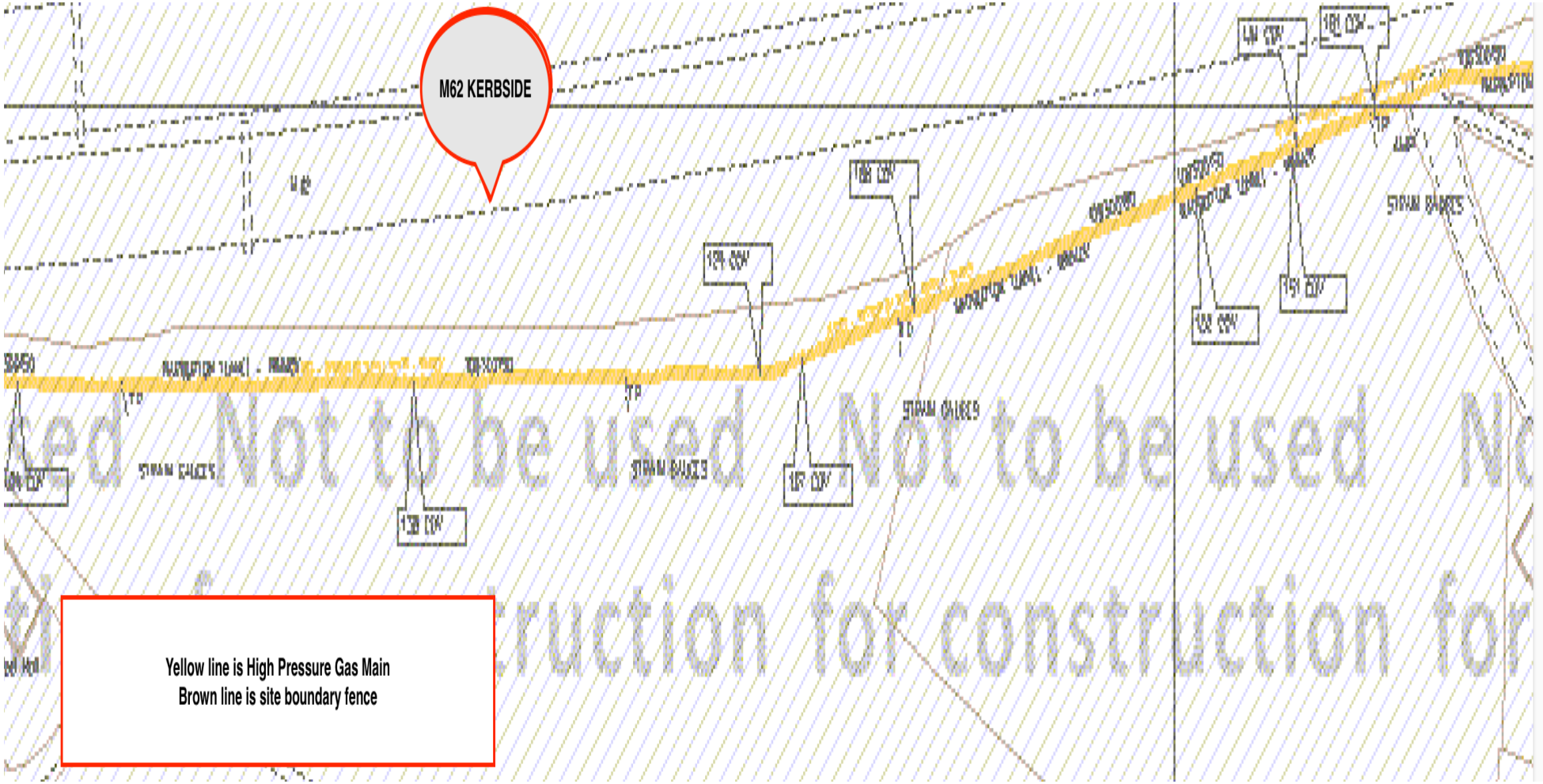


11 National Grid Easement

[redacted]

Good Morning Margaret,

We have received your enquiries regarding a potential development on the Land near to Peel Hall Farm. In this area we have a the High Pressure Warburton – Winwick Pipeline. In terms of this pipeline looking at the records we seem to have a legal easement of a 12 metre span over the pipeline, we would not want anything built in this area so that we can have access to excavate on our Pipeline at all times. Outside of this distance we really have no say in what gets built as it is not our land.

Regards,

Rob Doran

[redacted]

12 United Utilities

[redacted]

[redacted]

[redacted]

Dear Sir/Madam,

Location: Land at Peel Hall Warrington WA2 9LH
Proposal: Major Development: Outline planning application for a new mixed use neighbourhood comprising residential institution (residential care home - Use Class C2); up to 1200 dwelling houses and apartments (Use Class C3); local centre including food store up to 2000 square metres (Use Class A1); financial & professional services; restaurants and cafes; drinking establishments; hot food takeaways (Use Classes A2-A5 inclusive); units within Use Class D1 (non-residential institution) of up to 600 sq m total with no single unit of more than 200 sq m; and family restaurant/ pub of up to 800 sq m (Use Classes A3/A4); primary school; open space including sports pitches with ancillary facilities; means of access (including the demolition of 344; 346; 348; 458 and 460 Poplars Avenue) and supporting infrastructure. (All detailed matters other than access reserved for subsequent approval.) (Application is accompanied by an Environmental Impact Assessment)

With regard to the above development proposal, United Utilities Water Limited ('United Utilities') welcomes the opportunity to provide comments upon the Environmental Statement Addendum, ES Documents and Figures and ES Non-Technical Summary. United Utilities would like to draw your attention to comments previously submitted in respect of the outline planning application (ref: 2016/28492) dated 14 December 2016 and a subsequent pre-application request dated 19 February 2019 and specifically our suggested draft conditions which we enclose again for ease of reference. These conditions are reflective of recommended conditions 16, 17, 18 and 19 set out within Appendix C of the Planning Inspectorate's report to the Secretary of State dated 1 October 2018. In addition to our suggested conditions we also support draft condition 20 regarding ground water protection and draft condition 31 regarding a Construction Environmental Management Plan, including the protection of existing utility assets and infrastructure.

The ES Addendum, and specifically Part 1, Chapter 7 'Hydrology, Drainage and Flood Risk Assessment' remains unchanged from the previous version of the ES to which we provided comments upon as part of planning application ref: 2016/28492. United Utilities wishes to re-iterate comments previously made to these consultations which are set out below:

United Utilities advises the following key points should be adhered to:

- Foul and surface water drain on separate systems.

[redacted]

- A holistic strategy for foul and surface water for the entire site. This should identify how the phases will interact within each other and reflect the surface water hierarchy which is outlined in the National Planning Practice Guidance. The approach to surface water should also be in accordance with the requirements of the non-statutory technical standards for sustainable drainage produced by Defra.

- Given the nature of the site we would expect there to be no reliance on the public sewer for the drainage of surface water.

- The strategy for wastewater infrastructure should seek to avoid the need for pumped solutions.

- The strategy should outline how different phases of the development will interact and ensure that infrastructure in the earlier phases, and that interconnects between phases, is appropriately sized.

- The site will require multiple connection points. A future strategy should identify possible connection points to the public sewerage network and clean water network.

- Given the size of the site, upgrades to infrastructure may be required. Until more detail is known about the development, it is difficult to comment on this further.

- For larger premises or developments of more than one property, including multiple connections, where additional infrastructure is required, a water network behaviour/demand modelling exercise would be required to determine the network reinforcements required to support the proposed development.

- If the appellant intends to obtain a water supply from United Utilities for the proposed development, we strongly recommend they engage with us at the earliest opportunity. If reinforcement of the water network is required to meet the demand, this could be a significant project and the design and construction period should be accounted for.

- If infrastructure upgrades are necessary, it may be necessary to co-ordinate the delivery of development with upgrades to infrastructure.

- The appellant should give consideration to the approach to management and maintenance of any on-site sustainable drainage system.

- United Utilities is not responsible for advising on rates of discharge to the local watercourse system and therefore we recommend the appellant engages with the Lead Local Flood Authority regarding these proposals.

- The proposed development site is situated within Groundwater Source Protection Zone (SPZ) 3, close to United Utilities water abstraction boreholes and within a Drinking Water Safeguard Zone for Groundwater. Drinking Water Safeguard Zones, designated by the Environment Agency under the Water Framework Directive, are used for areas around

abstractions where water quality is poor and are where additional measures are needed to improve water quality. Action is targeted at these zones to address water contamination. Land drainage and new development has the potential to impact on the quality of groundwater supplies, and given the scale of this development the potential effects of poorly designed SuDS need to be managed. We feel it is particularly important that the proposed SuDS are designed in accordance with the Ciria SuDS manual. In addition, the requirements from the Environment Agency's "Approach to Groundwater Protection" should also be applied to ensure that the development does not impact on groundwater quality in the area. Details of the approach of the EA is available at https://www.gov.uk/government/collections/groundwater-protection. We believe any future development/construction activity should be supported by a risk assessment and construction management plan.

- Further to the assessment of assets and infrastructure crossing the proposed site we strongly recommend a construction management plan is provided with any future planning submission to afford appropriate protection for United Utilities assets both during and post construction.

- Any proposed layout should also reflect United Utilities' Right of Way to Elm Road wastewater pumping station.

- The appellant should consult Sewers for Adoption 8th Edition and United Utilities Pumping Station Addendum document (available on United Utilities website) when considering potential layout in relation to pumping stations; in line with sewers for adoption 8th Edition, the minimum distance between the edge of the wet well and the wall of a habitable dwelling is 15m.

- Should the Planning Inspectorate be minded to allow this appeal or the Local Planning Authority approve a future planning application at this location; and the appellant intends to offer wastewater assets forward for adoption by United Utilities, the proposed detailed design will be subject to a technical appraisal. Therefore the proposal should meet the requirements of Sewers for Adoption and United Utilities' Asset Standards. The detailed layout should be prepared with consideration of what is necessary to secure a development to an adoptable standard.

In addition to the above, United Utilities would like to understand potential build out rates and the phasing of the development to best inform the drainage strategy.

Furthermore it is important to reiterate some other matters which need to be taken into consideration by the appellant

United Utilities Property, Assets and Infrastructure

Water main

A water main crosses the site. As we need unrestricted access for operating and maintaining it, we will not permit development over or in close proximity to the main. We require an access strip as

detailed in our 'Standard Conditions for Works Adjacent to Pipelines', a copy of which was provided with our previous consultation responses.

The appellant must comply with our 'Standard Conditions' document. This should be taken into account in the final site layout, or a diversion may be necessary. Unless there is specific provision within the title of the property or an associated easement, any necessary disconnection or diversion required as a result of any development will be at the appellant's expense. If considering a water mains diversion, the appellant should contact United Utilities at their earliest opportunity as they may find that the cost of mains diversion is prohibitive in the context of their development scheme.

The Water Industry Act 1991 affords United Utilities specific rights in relation to the maintenance, repair, access and protection of our water infrastructure;

- Sections 158 & 159, outlines the right to inspect, maintain, adjust, repair or alter our mains. This includes carrying out any works incidental to any of those purposes. Service pipes are not our property and we have no record of them.
- Under Section 174 of the Act it is an offence to intentionally or negligently interfere with any resource main or water main that causes damage to or has an effect on its use or operation.

It is in accordance with this statutory provision that we provide standard conditions to assist developers when working in close proximity to our water mains.

Both during and post construction, there should be no additional load bearing capacity on the main without prior agreement from United Utilities. This would include earth movement and the transport and position of construction equipment and vehicles.

Public sewer

Public sewers, including a rising main cross this site and we will not permit building over them. We will require an access strip width in accordance with the minimum distances specified in "Sewers for Adoption", for maintenance or replacement. This should be incorporated into any future site layout. Therefore a modification of the site layout, or a diversion of the affected public sewer may be necessary. All costs associated with sewer diversions must be borne by the appellant.

To establish if a sewer diversion is feasible, the appellant must discuss this at an early stage with our Developer Engineer at wastewaterdeveloperservices@uuplc.co.uk as a lengthy lead in period may be required if a sewer diversion proves to be acceptable.

Deep rooted shrubs and trees should not be planted in the vicinity of the public sewer and overflow systems.

Where United Utilities' assets exist, the level of cover to the water mains and public sewers must not be compromised either during or after construction.

[redacted]

Pumping Station

As set out above, a Pumping Station and right of way is also located within the site boundary. The appellant should note that we will need access to these assets including a vehicular access to the pumping station. The existence of the pumping station and access to it will need to be considered in the site layout. We recommend that this access is discussed with our Property Services team if this appeal is allowed so appropriate access can be agreed in the site layout.

It is the appellant's responsibility to investigate the possibility of any United Utilities' assets potentially impacted by their proposals and to demonstrate the exact relationship between any United Utilities' assets and the proposed development.

A number of providers offer a paid for mapping service including United Utilities. To find out how to purchase a sewer and water plan from United Utilities, please visit the Property Searches website; https://www.unitedutilities.com/property-searches/

You can also view the plans for free. To make an appointment to view our sewer records at your local authority please contact them direct, alternatively if you wish to view the water and the sewer records at our Lingley Mere offices based in Warrington please ring [redacted] to book an appointment.

Due to the public sewer transfer in 2011, not all sewers are currently shown on the statutory sewer records and we do not always show private pipes on our plans. If a sewer is discovered during construction; please contact a Building Control Body to discuss the matter further.

Should this planning appeal be allowed the appellant should contact United Utilities regarding a potential water supply or connection to public sewers. Additional information is available on our website http://www.unitedutilities.com/builders-developers.aspx

Drainage

In accordance with the National Planning Policy Framework (NPPF) and the National Planning Practice Guidance (NPPG), the site should be drained on a separate system with foul water draining to the public sewer and surface water draining in the most sustainable way. Our suggested drainage conditions are as per the suggested conditions submitted in relation to planning application ref: 2016/28492. For ease of reference we enclose a copy of the draft conditions submitted as part of our consultation response in relation to planning application reference: ref: 2016/28492.

The appellant can discuss this with Developer Engineer, **Matthew Dodd**, by email at wastewaterdeveloperservices@uuplc.co.uk.

Please note, United Utilities is not responsible for advising on rates of discharge to the local watercourse system. This is a matter for discussion with the Lead Local Flood Authority and / or the Environment Agency (if the watercourse is classified as main river).

If the appellant intends to offer wastewater assets forward for adoption by United Utilities, the proposed detailed design will be subject to a technical appraisal by an Adoptions Engineer as we need to be sure that the proposal meets the requirements of Sewers for Adoption and United Utilities' Asset Standards. The detailed layout should be prepared with consideration of what is necessary to secure a development to an adoptable standard. This is important as drainage design can be a key determining factor of site levels and layout. The proposed design should give consideration to long term operability and give United Utilities a cost effective proposal for the life of the assets. Therefore, should this appeal be allowed and the appellant wishes to progress a Section 104 agreement, we strongly recommend that no construction commences until the detailed drainage design, submitted as part of the Section 104 agreement, has been assessed and accepted in writing by United Utilities. Any works carried out prior to the technical assessment being approved is done entirely at the developers own risk and could be subject to change.

Management and Maintenance of Sustainable Drainage Systems

Without effective management and maintenance, sustainable drainage systems can fail or become ineffective. As a provider of wastewater services, we believe we have a duty to advise the Local Planning Authority/Planning Inspectorate of this potential risk to ensure the longevity of the surface water drainage system and the service it provides to people. We also wish to minimise the risk of a sustainable drainage system having a detrimental impact on the public sewer network should the two systems interact.

We support draft condition 17 regarding a management and maintenance regime for any sustainable drainage system, albeit our suggested draft condition 4, submitted in response to the outline planning application and enclosed for ease of reference, provides further details required in the preparation of a management and maintenance plan.

Please note United Utilities cannot provide comment on the management and maintenance of an asset that is owned by a third party management and maintenance company. We would not be involved in the discharge of the management and maintenance condition in these circumstances.

Water Supply

If the appellant intends to obtain a water supply from United Utilities for the proposed development, we strongly recommend they engage with us at the earliest opportunity. If reinforcement of the water network is required to meet the demand, this could be a significant project and the design and construction period should be accounted for.

To discuss a potential water supply or any of the water comments detailed above, the appellant can contact the team at **DeveloperServicesWater@uuplc.co.uk.**

Please note, all internal pipework must comply with current Water Supply (water fittings) Regulations 1999.

Yours faithfully

Jill Walker
[redacted]
[redacted]

[redacted] [redacted]

13 W.B.C. Environmental Protection SPD




Environmental Protection

Supplementary Planning Document

May 2013

WARRINGTON
Borough Council

1 Introduction

2 Toolkit

3 Air Quality

Contents

4 Contaminated Land

5 Light Pollution

6 Noise

Contents

1 Introduction

This Supplementary Planning Document sets out in detail, the Council's approach to dealing with Environmental Protection including;

- Contaminated Land
- Air Quality
- Light Pollution
- Noise and Vibration

and identifies associated impacts that could affect public health and wellbeing.

The planning system is very complex. It can also be very emotive and can affect individuals and communities in very different ways. The objective of this Environmental Protection Supplementary Planning Document is to help applicants and developers through the planning process and to ensure that the most important aspects of Environmental Protection are addressed at the most appropriate stage of the planning process.

The Supplementary Planning Document includes:

- A "Toolkit" which sets out when additional information may be needed to support a planning application.
- Guidance as to what such additional information should contain - this can be quite technical and will probably be used by specialists preparing such information.
- Guidance as to how the Council will assess such information and an indication as to conditions that may be attached to any planning permission to ensure sustainable development.

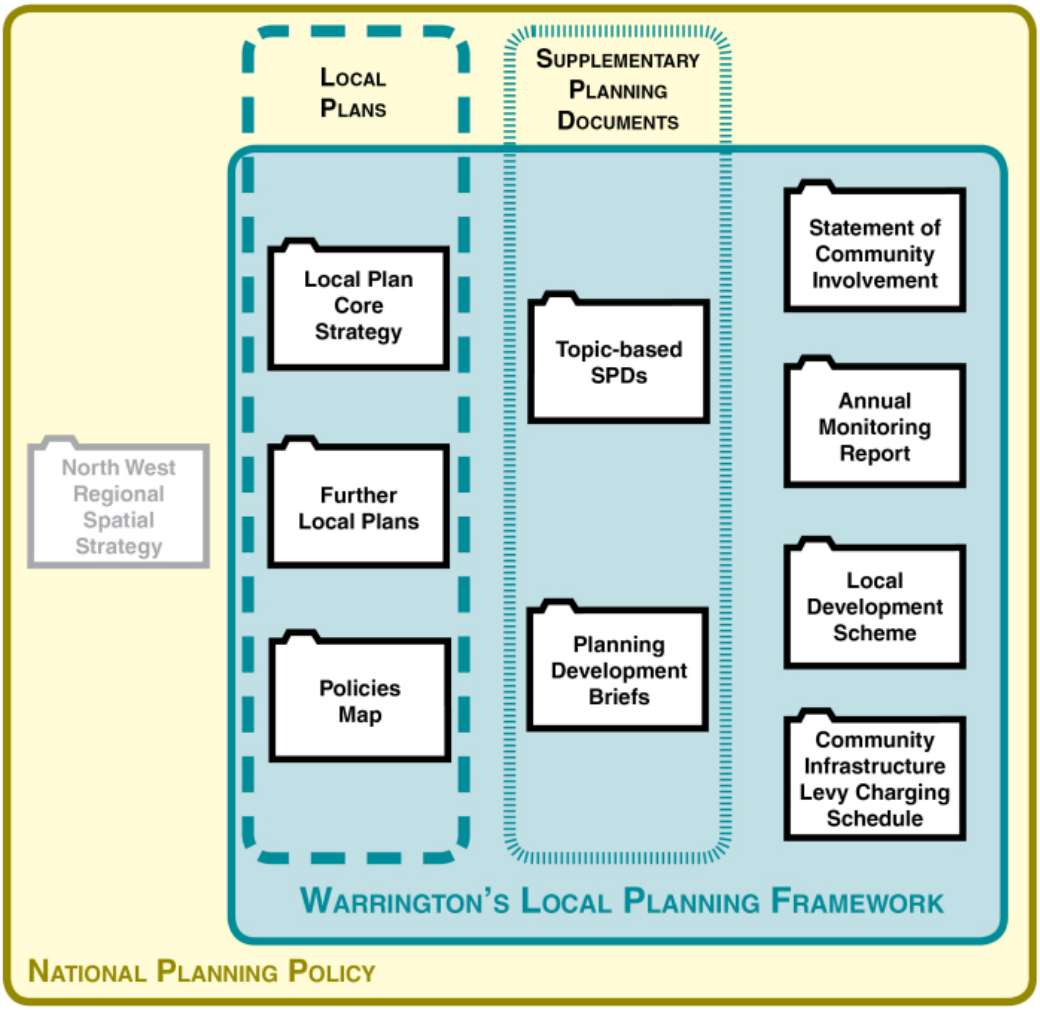
This document is written to serve as an informative and a helpful source of advice. Readers must note that legislation, guidance and practical methods may be subject to change. The Council has taken all reasonable precautions to ensure the information is correct. However, the Council, its officers, servants, or agents, will not accept any liability for loss or damage caused by any person relying on this information, or for any errors or omissions in the information provided.

1 Introduction

1.1 Status of the Document

This Supplementary Planning Document forms part of Warrington's Local Planning Framework. The Local Planning Framework comprises a series of plans and documents, as opposed to a single plan, as documents can be produced more easily and are more easily kept up to date.

Warrington's Local Planning Framework consists of a suite of documents as illustrated below:



Local Plans are part of the Statutory Development Plan and are subject to independent examination. The policies against which planning applications will be assessed are contained within Local Plans.

Supplementary Planning Documents (SPDs) such as this are documents that expand upon existing policy or provide further detail to policies in contained in the Development Plan. These documents are not subject to independent examination and do not have Development Plan status, but are a material consideration in decision-making.

This document should be read in conjunction with national planning policy set out in the National Planning Policy Framework (NPPF). This SPD specifically supplements Environmental Protection policies contained within the adopted UDP and the emerging Local Plan Core Strategy.

Environmental Protection policies in the Unitary Development Plan include:

LUT1 – Land Use / Transportation Strategy	GRN2 – Environmental Protection and Enhancement
HOU7 – The Residential Environment	REP1 – The Prudent Use of Resources
REP6 - Surface Water Quality	REP7 - Groundwater Quality
REP8 – Land Contamination	REP9 – Air Quality
REP10 – Noise	REP11 – Odours
REP12 – Development Near Existing Sources of Pollution	REP13 – Hazardous Uses / Installations
REP14 – Hazardous Uses / Installations	REP15 – Hazardous Uses / Installations

In addition, Policy QE6 within the emerging Local Plan Core Strategy covers Environment & Amenity Protection and sets out the following:

Policy QE 6

Environment and Amenity Protection

The Council, in consultation with other Agencies, will only support development which would not lead to an adverse impact on the environment or amenity of future occupiers or those currently occupying adjoining or nearby properties, or does not have an unacceptable impact on the surrounding area. The Council will take into consideration the following:

- **The integrity and continuity of tidal and fluvial flood defences;**
- **The quality of water bodies, including canals, rivers, ponds and lakes;**
- **Groundwater resources in terms of their quantity, quality and the ecological features they support;**
- **Air quality;**
- **Noise and vibration levels and times when such disturbances are likely to occur;**
- **Levels of light pollution and impacts on the night sky;**
- **Levels of odours, fumes, dust, litter accumulation and refuse collection / storage.**
- **Overlooking and loss of privacy;**
- **Sunlight, daylight and overshadowing;**
- **The effect and timing of traffic movement to, from and within the site and car parking including impacts on highway safety;**
- **The ability and the effect of using permitted development rights to change use within the same Use Class (as set out in the in the Town and Country Planning (General Permitted Development Order) without the need to obtain planning consent.**

The ability and the effect of using permitted development rights to change use within the same Use Class (as set out in the in the Town and Country Planning (General Permitted Development Order) without the need to obtain planning consent.

Proposals may be required to submit detailed assessments in relation to any of the above criteria to the Council for approval. Where development is permitted which may have an impact on such considerations, the Council will consider the use of conditions or planning obligations to ensure any appropriate mitigation or compensatory measures are secured.

Development proposals on land that is (or is suspected to be) affected by contamination or ground instability must include an assessment of the extent of the issues and any possible risks. Development will only be permitted where the land is, or is made, suitable for the proposed use.

Additional guidance to support the implementation of this policy is provided in the Design and Construction and Environmental Protection Supplementary Planning Documents.

1.2 Pre-Application Discussions

Whilst each section aims to provide clarity with regards to various aspects of Environmental Protection, it should be recognised that applicants are strongly encouraged to undertake pre-application discussions with Council officers and external consultees prior to the submission of a planning application.

The objective of pre-application discussion should be to confirm whether the principle of development is acceptable, establish key issues which the application should address, and to agree the submission of material needed to enable the application to be assessed.

Where applicable, joint pre planning discussions may be necessary with other organisations that have fundamental interrelated issues to establish at an early stage whether a development would be acceptable.

It is expected that each application,where pre-application involvement is appropriate, will be submitted with a statement outlining the extent of consultation completed and how the feedback from the consultation process has influenced the submitted scheme.

1.3 Environmental Impact Assessment

Certain planning applications may fall within the scope of the Environmental Impact Assessment Regulations 1999. Where this is the case an Environmental Statement will be required to support the planning application, as stipulated by these regulations. It is likely however, that additional information concerning each aspect of Environmental Protection will be required to fully assess an application, in addition to the consideration contained in a typical Environmental Impact Assessment.

2 Toolkit

Purpose of the Toolkit

For a planning application to stand the greatest chance of success it is important to work through all of the issues which the Council will be interested in, and attempt to address what is needed by providing good, relevant information. This Toolkit is designed to help you do this and aims to identify when further information, relating to Environmental Protection, is required in support of a planning application or proposal. It should be read in conjunction with the following chapters where necessary which are essentially guidance documents referring to technical issues for consultants / specialists.

Using the Toolkit

This Toolkit is split into four sections, relating to Environmental Protection:

As you work through each section it should become clear when further information or supporting documents may be required by the Council, when submitting a planning application.

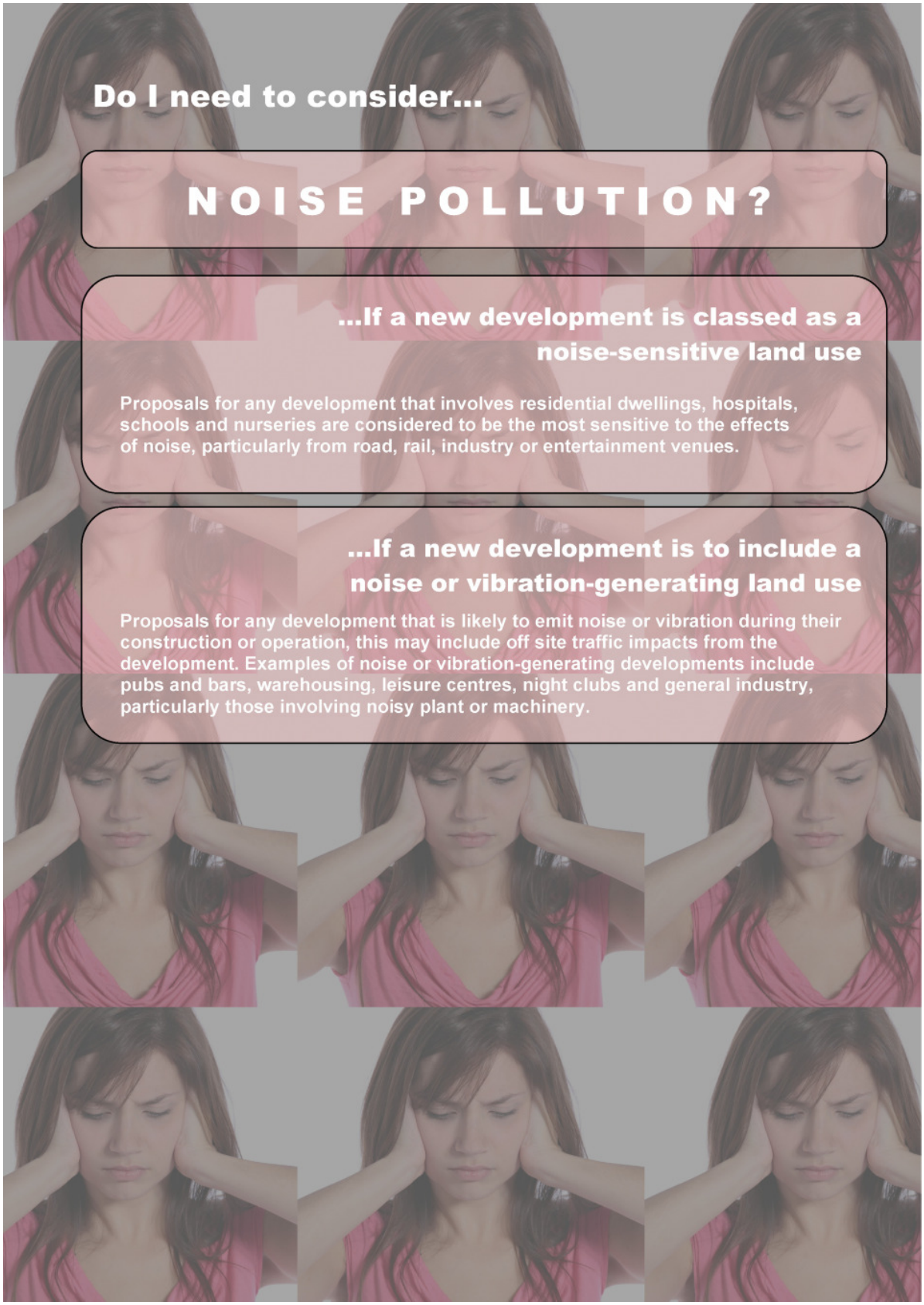
Who We Are

The Public Protection Service is responsible for addressing Environmental Protection issues via the planning system and provides advice to the Local Planning Authority (LPA) with regards to any risks to human health or amenity impacts within the wider environment. Our contact details can be found at the end of this toolkit.


Do I need to consider...
AIR QUALITY?
...If a new development is located in a sensitive area
Within or next to an existing Air Quality Management Area (AQMA) or that could significantly impact upon air quality in areas where objectives are currently not exceeded
...If a new development includes car parking
>50 spaces inside AQMA or >100 spaces outside AQMA
...If a new development will introduce new exposure
To an area close to or within existing sources of air pollutants
...If a new development will impact upon traffic
Significant changes in traffic volumes, increase in congestion or significantly change composition
...If a new development is located near railway lines
Introduce new exposure within 30m of a diesel railway line
...If a new development includes biomass boilers or Combined Heat & Power Plants
...If a new development is likely to have significant impacts during construction
...If a new development is likely to significantly affect nitrogen deposition to sensitive habitats
...If a new development has any other potential impact on air quality or odour not listed above


Do I need to consider...
CONTAMINATED LAND?
...If a new development is on or adjacent to 'Potentially Contaminated Land'
Proposals for any new developments located on land that is affected by contamination due to its previous use. A wide range of industrial uses may have historically caused land contamination such as cotton mills, metal works, chemical works, breweries, tanneries and gas works. At the same time, less obvious land uses such as domestic garages, electricity sub-stations and in-filled ponds or quarries can also lead to potential contamination.
...If a new development is within 250m of a Landfill site
Proposals for any new developments that are to be built within 250m or less of a landfill site or known ground gas source. Decomposing waste or organic material (eg: Peat) can produce gas, which can travel through the ground and affect developments. The main types of land use that can produce ground gas are landfill sites, marshes, peat bogs, coal mines and in-filled land, such as ponds, canals or quarries.
...If a new development is classed as a 'Sensitive End-Use'
Proposals that include residential developments (houses, flats, nursing homes etc.); Allotments; schools; nurseries and crèches; children's play areas and playing fields.


Do I need to consider...
LIGHT POLLUTION?
...If a new development is to include illuminated signage
Proposals for any developments, which include signs or advertisements that are illuminated internally or externally and could cause light pollution. There are many types of illuminated signs, but common examples include shop/retail fascias or billboard advertising.
...If a new development is to include a lighting scheme
Proposals for any developments, which include external lighting installations, such as flood-lighting or security lighting. Typical examples would include car parks, warehousing or sports pitches and courts.
...If a new development is adjacent to a significant light source
Proposals for any developments considered to be a sensitive end use. Such developments include residential dwellings, hospitals or any development where occupants stay overnight


Do I need to consider...
NOISE POLLUTION?
...If a new development is classed as a noise-sensitive land use
Proposals for any development that involves residential dwellings, hospitals, schools and nurseries are considered to be the most sensitive to the effects of noise, particularly from road, rail, industry or entertainment venues.
...If a new development is to include a noise or vibration-generating land use
Proposals for any development that is likely to emit noise or vibration during their construction or operation, this may include off site traffic impacts from the development. Examples of noise or vibration-generating developments include pubs and bars, warehousing, leisure centres, night clubs and general industry, particularly those involving noisy plant or machinery.

Warrington Borough [redacted]	Air Quality	[redacted]
[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]
	[redacted]	[redacted]
	[redacted]	[redacted]
	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

2 Toolkit

3 Air Quality

3.1 Introduction

Air quality is a measure of how good our air is in terms of the type and quantity of pollution contained within it. A good level of air quality is an important factor in protecting human health.

The planning system is important to help us to manage our local air quality. Used positively, spatial planning has a pivotal and significant role in helping to improve local air quality and meet national emissions targets. The planning system for land use and transport are an important part of an integrated approach to air quality improvements. The importance of considering air quality at an early stage is essential in the application process.

Action plans for the current Air Quality Management Areas (AQMAs) have been developed and are included within Annex 1 of the current Local Transport Plan (LTP). The LTP has a specific policy relating to air quality so that the transport network aims to reduce the impact of traffic on air quality in Warrington. Any planning application that has a potential impact upon traffic levels or composition should take into account policies within the LTP and how they relate to air quality.

3.2 Air Quality Objectives

The Government has set out National Air Quality Objectives under the Environment Act 1995 and empowered local authorities to establish areas, known as AQMAs, where pollution levels are likely to exceed the national objectives for certain pollutants. Unacceptable levels of certain pollutants are assessed against the objectives set out in the National Air Quality Strategy 2007, and any amendment to that strategy. The Council is required to determine whether these health-based air quality objectives for seven pollutants will be achieved in the Borough.

Pollutant	Air Quality Objective Concentration	Air Quality Objective Measured As	Date to be Achieved by
Benzene			
All Authorities	16.25 µg/m^3	Running Annual Mean	31/12/2003
England and Wales only	5.00 µg/m^3	Annual Mean	31/12/2010
Scotland and N. Ireland	3.25 µg/m^3	Running Annual Mean	31/12/2010
1,3-Butadiene	2.25 µg/m^3	Running Annual Mean	31/12/2003
Carbon Monoxide			
England/Wales/N. Ireland	10.0 µg/m^3	Maximum daily running 8 hour mean	31/12/2003
Scotland only	10.0 µg/m^3	Running 8 hour mean	31/12/2003

3 Air Quality

Pollutant	Air Quality Objective Concentration	Air Quality Objective Measured As	Date to be Achieved by
Lead	0.5 µg/m^3 0.25 µg/m^3	Annual Mean Annual Mean	31/12/2004 31/12/2008
Nitrogen Dioxide	200 µg/m3 not to be exceeded more than 18 times a year 40 µg/m^3	1 Hour Mean Annual Mean	31/12/2005 31/12/2005
Particles (PM_{10}) (Gravimetric)			
All authorities	50 µg/m3 not to be exceeded more than 35 times a year 40 µg/m^3	24 Hour Mean Annual Mean	31/12/2004 31/12/2004
Scotland only	50 µg/m3 not to be exceeded more than 7 times a year 18 µg/m^3	24 Hour Mean Annual Mean	31/12/2010 31/12/2010
Sulphur Dioxide	350 µg/m3 not to be exceeded more than 24 times a year 125 µg/m3 not to be exceeded more than 3 times a year 266 µg/m3 not to be exceeded more than 35 times a year	1 Hour Mean 24 Hour Mean 15 Minute Mean	31/12/2004 31/12/2004 31/12/2005

Table 3.1 The Current National Air Quality Objectives

These objectives are subject to change, therefore the Public Protection Service should be contacted for the most up to date information.

Planning considerations are key in assisting the AQMA action plan and to prevent new areas of exceedance either by the emissions linked to the development or by locating new receptors in areas where air quality might then breach the objective levels.

The Council has declared AQMA's for exceedences in the annual nitrogen dioxide limit. Information on the current AQMAs is available on the Council website, or can be provided by the Public Protection service on request.

Source apportionment work has shown that poor air quality in Warrington is predominantly the result of traffic emissions. Because air quality is kept under annual review, the AQMA boundaries may change and, therefore, applicants are advised to check if these boundaries have changed with the Public Protection Service. These areas have been designated due to exceedences in the annual nitrogen dioxide (NO_2) objective levels linked to transport emissions, primarily HGVs and cars.

Further areas within Warrington are close to, but below the national objectives. The Developer / Applicant must consider air quality within current AQMAs, but also areas adjacent to these, and areas that are close to the objectives.

The fact that an AQMA has been declared does not mean that there will be an absolute restriction of new development in the area. However, it does mean that greater weight and consideration will be given to air quality issues and measures to reduce pollution. In determining a planning application, weight will be attached to air quality impacts, but will also need to be balanced against other planning considerations. The Council will also look closely at applications for new developments that are not within an AQMA if it is likely that the new development will increase pollution to unacceptable levels or introduce new exposure where people were not previously exposed. The Council shall ensure development has a beneficial impact on the environment, for example by exploring the possibility of securing mitigation measures that would allow the proposal to proceed. It may be appropriate in some circumstances for the developer to fund mitigation measures elsewhere inside the AQMA and assist the action taken by the Council in planning and air quality assessment work to offset any increase in local pollutant emissions as a consequence of the proposed development. These measures may be secured through Section 106 Agreements or unilateral undertakings.

Whilst the primary concern is exceedances of the annual NO_2 objective, there is also growing concern of particulate levels and their impact on health. Whilst larger particulates, known as PM10, have objective levels set within the national standards there is no objective level for the finer particles (PM2.5) as there is considered to be no trigger level before there is a health impact i.e. any exposure will have some health concerns. Therefore, whilst PM2.5 is not one of the pollutants within the national objectives for local air quality management, the Council may still require this pollutant to be assessed for comparison against background data if relevant for the development. Any increase in PM2.5 levels above background may require mitigation measures.

3.3 Technical Guidance for Consultants/Specialists

3.3.1 When is an Air Quality Assessment Required?

It is possible that air quality will still need to be considered outside areas of poor air quality if the scheme is likely to result in significant emissions. Professional judgement is required to determine whether an assessment is required and the applicant is strongly advised to contact the Council to check at pre-application stage. However, guidelines produced by the Environmental Protection UK publication *Development Control: Planning for Air Quality (2010)* provides a useful initial screen and are set out in Table 3.2.

1	**New developments within or adjacent to AQMAs** Proposals for any new developments that would impact upon air quality in areas where air quality objectives are exceeded, within current or potential AQMAs, where people would be exposed for significant periods of the day.
2	**New developments outside AQMAs** Proposals for any new developments that could impact upon air quality in areas where currently air quality objectives are not exceeded, but where there would be a significant impact from the development on the pre-development levels, where there are relevant receptors.

3	**Car Parking** Proposals that include significant new car parking. To be taken to be more than 100 spaces outside an AQMA, or 50 spaces inside or adjacent to an AQMA. Account shall also be taken of car park turnover, i.e. the difference between short-term and long-term parking, which will affect the traffic flows into and out of the car park. This should also include proposals for new coach or lorry parks. These criteria are designed to trigger the requirement for the assessment of traffic on the local roads. It may also be appropriate to assess the emissions from within the car park itself.
4	**New Exposure** When the development will introduce new exposure close to or within existing sources of air pollutants, including road traffic, industrial operations, agricultural operations etc.
5	**Change in Traffic Volumes** Proposals that will give rise to a significant change in either traffic volumes: Typically a change in annual average daily traffic (AADT) or peak traffic flows of greater than ±5% or ±10%, depending on local circumstances (a change of ±5% will be appropriate for traffic flows within an AQMA): or in vehicle speed (typically of more than ±10 kph), or both, usually on a road with more than 10,000 AADT (5,000 if 'narrow and congested')
6	**Traffic Congestion** Proposals that will generate or increase traffic congestion, where ‘congestion’ manifests itself as an increase in periods with stop start driving.
7	**Change in Traffic Composition** Proposals that would significantly alter the traffic composition on local roads, for example, increase the number of HGVs by 200 movements or more per day, due to the development of a bus station or an HGV park. (Professional judgement will be required, taking account of the total vehicle flow as well as the change).
8	**Railway Lines** Introduction of new exposure within 30m of a diesel railway line.
9	**Biomass Boilers** Proposals that include biomass boilers or biomass-fuelled Combined Heat and Power (CHP) plant (there is no established criterion for the size of plant that might require assessment.)
10	**CHP and boilers** Consideration should be given to the impacts of centralised boilers or CHP plant burning other non-biomass fuels (e.g. gas or oil) within or close to an AQMA.
11	**Construction Impacts**

	Proposals that could give rise to potentially significant impacts during construction for nearby sensitive locations e.g. residential areas, areas with parked cars and commercial operations that may be sensitive to dust. Large, long-term construction sites that would generate large HGV flows (>200 movements per day) over a period of a year or more
12	**Nitrogen deposition** Developments which may significantly affect nitrogen deposition to sensitive habitats
13	**Other** Any other development proposal within or adjacent to an AQMA and not listed in this table which may, in the professional opinion of the Council, be significant in terms of air quality impact and/or may impact on the working of measures detailed in the Air Quality Action Plan.

Table 3.2: Criteria for determining whether an application/development will require an air quality assessment.

3.3.2 Receptors

Any assessment should consider air quality levels at relative sensitive receptors. These are defined within the Environment Act 1995 as "All locations where members of the public might be regularly exposed, e.g. building facades of residential properties, schools, hospitals, libraries etc." For the 1 hour objectives it also includes kerbside sites (e.g. pavements of busy shopping streets) and outdoor locations to which the public might reasonably expect to spend 1 hour or longer, including car parks, bus stations and railways stations which are not fully enclosed.

3.3.3 Contents of an Air Quality Assessment

This Chapter does not set out a prescribed methodology for developments where an assessment is required. It is therefore important that appropriate methodology and data requirements are agreed with the Council before any assessment work is undertaken. It is considered that to prescribe methods does not allow for continuous improvements being made in methodology. Current detailed guidance is available in the *Defra Technical Guidance LAQM.TG(09)* and the Environmental Protection UK publication.

In principle, the intention of an air quality assessment is to demonstrate the likely changes in air quality or exposure to air pollutants, as a result of a proposed development. Some quantitative assessment will therefore be required. The basis of assessments will be to compare the existing situation with that following completion of the development and three basic steps are required:

1. Assess the existing air quality (baseline)
2. Predict future air quality without the development (future baseline)
3. Predict future air quality with the development (with development)

The Council can usually assist with the first two steps and information may be available from one of the Council's own annual air quality Review and Assessment reports. These reports are available on request or can be downloaded from the Council website.

Any air quality assessment report will normally be required to detail a minimum of information. Information on this is set out in Table 3.3:

3 Air Quality

1 Details of proposed development
An overview of the development proposal
Identification of on-site sources of pollutants
An overview of expected traffic changes or changes in emissions from the site for a specified year
Identification of local receptors including residential properties, other sensitive properties, ecologically sensitive areas and any specific locations where people are likely to be exposed for the appropriate averaging time (dependant on the air quality objective being assessed against)
Evidence of a site visit and assessment of local issues (as discussed above)
Set out the relevant air quality standards and objectives
An overview of the development proposal in the context of any local air quality issues (e.g. within an AQMA or area undergoing a Detailed Assessment), a review of the most recent Updating and Screening or Progress Reports or other Review and Assessment reports published by the Council is therefore essential
A justification of which pollutants requiring an assessment
Set out the assessment methodology, including the local input data and assumptions
Traffic data used in the assessment
Emission data (point source and road traffic)
Meteorological data
Baseline pollutant concentrations
Choice of baseline year and whether it is a low, typical or high pollution year (including an examination of any available long-term local air quality monitoring data for trend)
NOx:NO_2 relationship used; and
Any other relevant input parameters used
2 Set out the results and provide a summary
Details of the model verification including a comparison of predicted versus measured concentrations used to derive adjustment factors to account of systematic errors
Impacts of the construction phase of the development at local receptor locations
Impacts that changes in emissions will have on ambient air quality at local receptor locations
Any exceedances of the air quality objectives brought about by the development, or any worsening of a current breach (including their geographical extent)
Whether any measures or actions specified in an Air Quality Action Plan will be directly compromised or rendered inoperative by the development proposal
3 In some cases the following additional information may be required
Source apportionment (the contribution of specific sources and vehicle classes to the overall contribution). Longer-term air quality predictions (e.g. an assessment for 2010 air quality objectives and against EU Limit Values)

1 Details of proposed development
A wider/more detailed assessment scope which takes into account other permitted major development proposal(s) in the same area
Consideration of potential impact upon neighbouring local authorities
4 Set out and assess the significance of the results
Advice on assessing significance is given within this SPD and must be followed unless an alternative assessment criteria is agreed with the Council
5 Consider the options for, and effectiveness of, pollution reducing, mitigation or compensating measures
Advice is given within this Chapter on mitigation measures. This is not an exhaustive list of measures and alternative more appropriate ones for the development type may be submitted for approval.

Table 3.3: Requirements of an air quality assessment

3.3.4 Agreement of Data and Assessment Methodology

Prior to undertaking an air quality assessment, it is important that whoever undertakes the assessment obtains an agreement with the Council regarding the scope and methodology. This will include an agreement on appropriate datasets including appropriate local air quality data, meteorological data, background concentrations, traffic flows/trip generation data, model type and verification procedures.

3.3.5 Selection of Modelling Methodology

Air quality assessment is a scientific exercise and as such there are continuous improvements and scientific developments within the discipline. Consequently, as previously stated, this Chapter does not set out a detailed prescribed method or choice of modelling methodology to be followed. However, advice is given in Table 3.4 on selecting which of the three main types of assessment methods should be used:

1	**Screening Methods**
	These are quick to apply, generic approaches based upon a limited set of variables. They are intended to determine if an air quality problem exists and if a more detailed dispersion modelling assessment is required. Since they are based upon a simplification of detailed modelling approaches they will not be suitable for local development proposals which contain features that are not included in the screening method. A local screening study may be applicable for simple proposals involving, flat free-flowing/open roads (i.e. non-congested, non-street canyons without inclines) or for simple industrial point sources, especially where the changes in emissions is likely to be very small. Screening methods should only be used in areas where air quality is not approaching or exceeding the air quality objectives.
2	**Local Scale Dispersion Models**
	These are detailed, specialist methodologies with a broad range of local input variables. The models focus on the local road network or industrial source and background concentrations are added to the calculated values to predict the total pollutant concentration. As such, these models are typically the most suitable for the assessment of local development proposals. In any situation where a screening method cannot model specific features of the development proposal or the local topography then a local scale dispersion model should be used unless then assessment area is very large, where regional scale models are more appropriate. These models are suitable for use in areas where air quality is approaching or exceeding the air quality objectives.

	Regional Scale Dispersion Models
3	These are similar to local scale dispersion models but can be designed to model pollution sources over a very wide area (several square kilometres). Such modelling will rarely be required for local development proposals and should only be used where the study area is large.

Table 3.4: Assessment methods

3.3.6 Assessing Significance

Assessing the significance of air quality in the context of a planning application is an important part of the overall process. The aim is to remove as much ambiguity as is possible about how air quality should be considered in the planning process. Currently, there is no definitive, specific Government guidance for assessing the significance, although guidance provided by Environmental Protection UK offers a consistent approach and is recommended.

Significance is typically assessed at two stages in the overall process of examining air quality as a material planning consideration:

1. The requirement to set out the change in magnitude and significance of any air quality impacts within the air quality assessment, using the professional judgement of the assessment authors;
2. An evaluation by the local planning authority (LPA) of the assessment of the significance of any air quality impacts using the professional judgement of its officers, to help reach a decision on the planning application.

3.3.7 Significance within the Air Quality Assessment

The main requirement and outcome of an air quality assessment will be to describe significance in terms of the change in concentration of a specific pollutant and the absolute concentration after the change, in relation to air quality guidelines. An important aspect of considering significance will therefore be a comparison against the UK air quality objectives and the EU limit values. However, the assessment process also requires the magnitude of the changes to be set out and taken into account and a consistent descriptive terminology employed.

The use of assessment descriptors often has limitations, for example they may not include a judgement of the number of people affected or fail to account for the impacts of the construction phase of a development. Nonetheless, assessment descriptors are an important part of overall assessment. An example of possible descriptors for nitrogen dioxide and PM10 is given in Table 3.5. Further examples are given within the Environmental Protection UK guidance.

Magnitude of change	Annual Mean NO_2 / PM10	Days PM10 > 50µg/m^3
Very Large	Increase/decrease >15%	Increase/decrease > 15 days
Large	Increase/decrease 10-15%	Increase/decrease 10-15 days
Medium	Increase/decrease 5-10%	Increase/decrease 5-10 days
Small	Increase/decrease 1-5%	Increase/decrease 1-5 days
Very Small	Increase/decrease < 1%	Increase/decrease < 1 days

Table 3.5: Descriptors for changes in ambient concentrations of nitrogen dioxide (NO_2) and particulates (PM10)

These magnitudes of changes therefore need to be put into context when compared to actual air quality concentrations at relevant receptors to assess significance.

Absolute Concentration in Relation to Objective/Limit Value	Change in Concentration (Increase with Scheme)		
	Small	Medium	Large
Above Objective/Limit Value *With* Scheme (>40 µg/m^3)	Slight Adverse	Moderate Adverse	Substantial Adverse
Just Below Objective/Limit Value *With* Scheme (36-40 µg/m^3)	Slight Adverse	Moderate Adverse	Moderate Adverse
Below Objective/Limit Value *With* Scheme (30-36 µg/m^3)	Negligible	Slight Adverse	Slight Adverse
Well Below Objective/Limit Value *With* Scheme (<30 µg/m^3)	Negligible	Negligible	Slight Adverse
Decrease with Scheme Above Objective/Limit Value *Without* Scheme (>40 µg/m^3)	Slight Beneficial	Moderate Beneficial	Substantial Beneficial
Just Below Objective/Limit Value *Without* Scheme (36-40 µg/m^3)	Slight Beneficial	Moderate Beneficial	Moderate Beneficial
Below Objective/Limit Value *Without* Scheme (30-36 µg/m^3)	Negligible	Slight Beneficial	Slight Beneficial
Well Below Objective/Limit Value *Without* Scheme (<30 µg/m^3)	Negligible	Negligible	Slight Beneficial

Table 3.6: Air quality impact descriptors for changes in the annual NO2 concentrations at a receptor

3.3.8 Assessment of Significance by the LPA

The flow chart in Figure 3.1, taken from the Environmental Protection UK guidance, has been adopted by the Council as an approach to help evaluate the significance of air quality impacts from any proposed development. When using the flow chart the LPA will also consider the following points:

- Air quality has the potential to be a material consideration in all planning applications – this is a site-specific, application-specific judgement in terms of the development location and the nature of the proposed development;
- The significance of impacts will also depend on the context of the development;
- The flow chart can be used to consider increases in emissions (a deterioration in air quality) as well as increases in exposure;
- The respective weight given to EU limit values and UK air quality objectives;
- Increases in concentrations of pollutants for which no health-based threshold is apparent may be treated as significant at lower levels of concentration change than for threshold pollutants. Non-threshold pollutants commonly assessed are benzene and particulate. Threshold substances include oxides of nitrogen;
- Differences of significance of changes in concentration above an air quality objective than when it is substantially below an objective;
- Allowances should be made for uncertainty. For example, a concentration of 36 µg/m^3 nitrogen dioxide may be considered to be significantly close to the air quality objective of 40 µg/m^3 owing to uncertainties and therefore may be adopted as a conservative figure when evaluating potential exceedances of the objective.

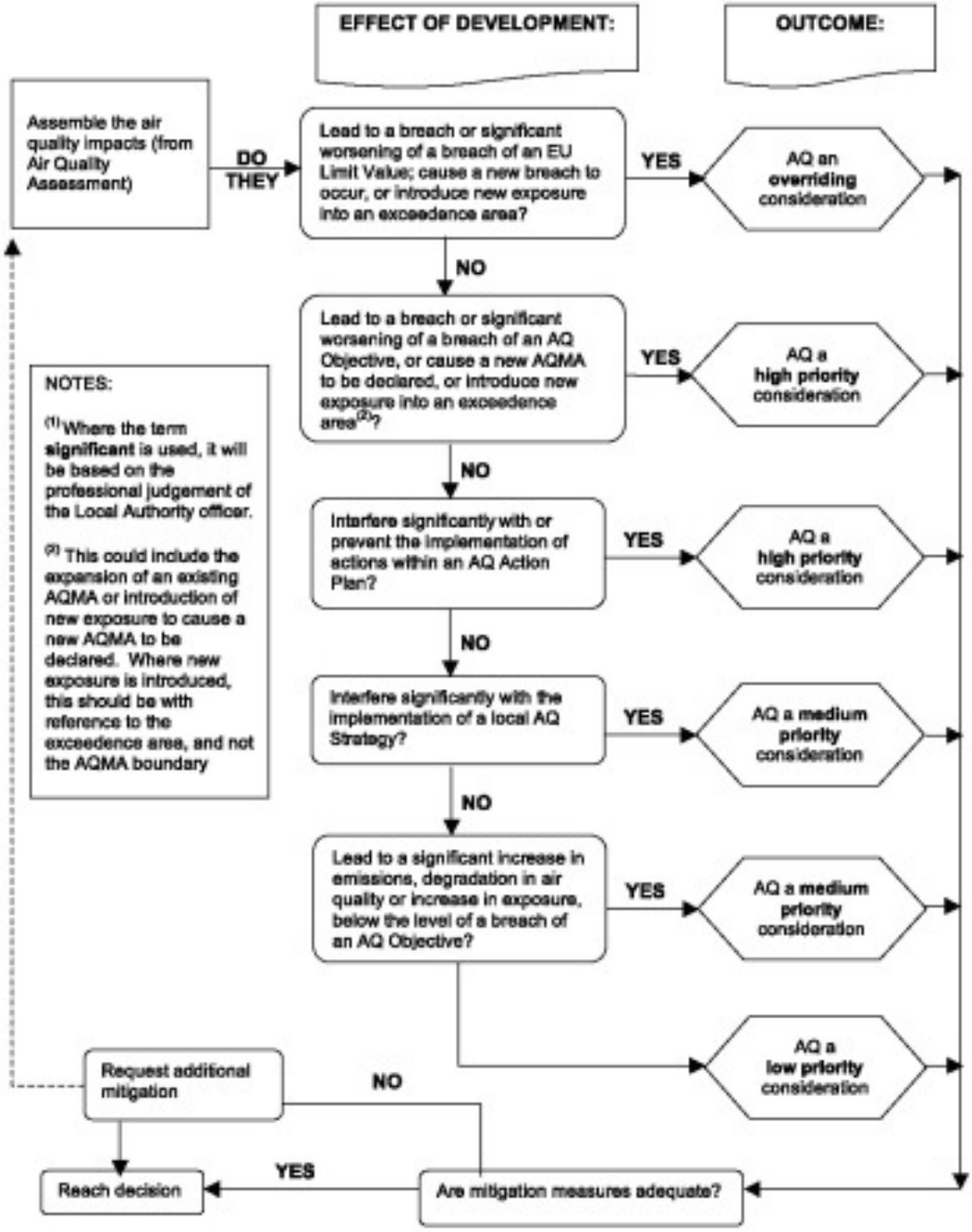


Figure 3.1 Steps for local authority to assess the significance of air quality impacts of a development proposal

This Chapter has adopted the Environmental Protection UK guidance recommendations following an assessment of significance. The Public Protection Service will then make planning recommendations on the proposed development to the LPA.

Impact significance from flow chart	Recommendation
Over-riding consideration	Require mitigation measures to remove 'over-riding' impacts. If the impact is still 'over-riding', there should be a strong presumption for a recommendation for refusal on air quality grounds.

Impact significance from flow chart	Recommendation
High priority consideration	Ensure that measures to minimise 'high priority' impacts are appropriate in the proposal. Recommend strengthening the measures if appropriate. Consideration may also be given to compensation/offsetting. Depending on the scale of the impacts, taking into account the number of people affected, the absolute levels and the magnitude of the changes, and the suitability of the measures to minimise impacts, it may be appropriate to recommend refusal.
Medium priority consideration	Seek mitigation measures to reduce 'medium priority' impacts. Offsetting and compensation measures may also be considered. It is unlikely that refusal would be recommended.
Low priority consideration	It is unlikely that refusal would be recommended, but mitigation measures should be incorporated into the scheme design to ensure that the development conforms to best practice standards, and is 'air quality neutral' as far as is reasonably practicable.

Table 3.7: Recommendations after assessment of significance

3.4 Cumulative Impacts and Mitigation

The impacts from a number of smaller developments that individually have relatively low polluting potential, but cumulatively result in a significant worsening of air quality, are of importance. This Chapter seeks to address this at a strategic level to ensure that all developments mitigate their cumulative effects and avoid 'background creep'.

A significant number of smaller developments may all add traffic to an urban location that already has an air quality problem. A process could be implemented where each development provides a financial contribution to implementing elements of the action plan relative to the nature, size and traffic generation of the proposal.

An air quality assessment may therefore need to take into account cumulative impacts from a number of developments.

3.5 Planning Conditions and Obligations

The Council will encourage design solutions, and use conditions, S106 Agreements and unilateral undertakings to mitigate impacts from any developments that are detrimental to air quality. The following should be considered although this is not an exhaustive list:

- Design of development proposals to mitigate against exposure on the development from existing air quality issues; for example the location of building inlet ventilation, or set back residential buildings away from roadside to reduce receptor exposure;
- Measures during the construction of new development including dust control, site monitoring and plant emissions;
- Contributions for the introduction of new or improved low emission public transport;
- The provision of on and off site facilities for cycling and walking;
- The provision of electric car charging points;
- Preferential permission and parking charges for low emission vehicles and car share;
- The management of car parking;
- Traffic management;
- Road infrastructure;
- Green Travel Plans;

- Monitoring of air pollution;
- Financial contribution towards local air quality review and assessment.

3.5.1 Developer Contribution

New developments in, or adjoining existing AQMAs, or other areas close to the objective levels that would lead to an increase in traffic and/or have a worsening effect on air quality, or that will add new receptors to areas where air quality levels are already breached, will be requested to provide for mitigation through contributions to aid towards implementation of the Council AQAP, and the Council local review and assessment work. The level of contribution will be guided by the 'Greenwich Formula' with the type of use set out in Table 3.8. The example of the expected financial level of developer contribution is reviewed annually but will be considered on a case by case basis based on the development impacts and merits. The developer contribution document is available from the Council website for download or available on request from the Public Protection Service. There maybe other developments that, depending upon their air quality impact or from the number of receptors affected, which may also be required to contribute.

Location of development, or where development generated traffic, or site emissions will impact upon	Minimum change in pollutant concentration	Type of development	£ Contribution
Above Objective/Limit Value *With* Scheme; or greater than 10% increase above background for PM2.5	Slight Adverse	Residential	per dwelling
		Employment	per m^2 gross floor area
		Retail Food	per m^2 gross floor area
		Retail Non-Food	per 100 m^2 gross floor area
		Car Parks	per car park space
Just Below (90% or above) Objective/Limit Value *With* Scheme	Moderate Adverse	Residential	per dwelling
		Employment	per m^2 gross floor area
		Retail Food	per m^2 gross floor area
		Retail Non-Food	per 100 m^2 gross floor area
		Car Parks	per car park space

Table 3.8: Developer contribution

3.6 Biomass

The whole of the Borough, except for Hatton and Stretton, is designated as a Smoke Control Area. Therefore the Council will require a detailed air quality assessment for any proposals for biomass-fuelled (including biofuels) individual or Combined Heat & Power (CHP) systems. This is due to health concerns relating to increasing of emissions of particulate (PM10 and PM2.5) and NO_2 in urban areas. All planning applicants proposing the use of biofuel and biomass-fuelled systems should submit a detailed air quality assessment to the Council, and should demonstrate that the heat generated from biomass is an effective alternative to conventional fuels and is not in conflict with the AQAP adopted by the Council and the Clean Air Act.

Air quality assessments should be conducted referencing LAQM TG(09) and Technical Guidance: *Screening Assessment for Biomass Boilers (08)* and any subsequent revisions.

3.7 Air Quality During Construction

The impact of the construction phase of a development on air quality should be considered as part of any air quality assessment. In the majority of instances the primary concerns relate to emissions of dust and particulate matter arising from the movement and storage of materials and from the various construction activities. In addition emissions from vehicles and plant used on the site including HGV vehicles bringing material to and from the site should also be considered for the local area.

Dust from a development site can be a major problem. It is important to minimise the generation of dust wherever possible. Development sites should have a means for damping down temporary haul roads and storage compounds should be located away from housing. The local authority can take action under its statutory nuisance provisions if dust or emissions are adversely affecting the health or the amenity of local residents or relevant receptors. The BRE guide *'Control of dust from construction and demolition activities'* or subsequent revisions, provides further information.

For **all** developments, best practicable means should be adopted to control and reduce emissions and therefore any assessment should also detail measures that will be used to mitigate the various sources.

It should also be noted that mobile crushing plant used on site should be permitted under the requirements of the Pollution Prevention and Control Act 1999 and the Environmental Permitting 2010 Regulations.

Burning is not an appropriate method of disposing of waste and therefore no burning should take place during construction works. Fires on demolition sites are likely to be expressly forbidden by either the Environment Agency (EA) or under the Building Control approval. The Council can also take action under its statutory nuisance provisions.

3.8 Industrial Pollution Prevention and Control

Certain industrial operations due to their potential environmental impact require a permit under the Environmental Permitting (England and Wales) Regulations 2010, as amended. New installations may require an air quality assessment to be provided to assess the impact from their operation. Whilst the Pollution Prevention and Control (PPC) regime is separate from the planning system both should be considered complementary and not in isolation. Therefore the Council should be contacted prior to any planning application or permit application being submitted for an agreement on the type and scale of any assessment that maybe required.#

Where a development requiring planning permission will also require a permit, it is recommended that the operator makes both applications in parallel, whenever possible, to allow a consistent approach. This will allow the local authority to begin its formal considerations early on, thus allowing it to co-ordinate both the planning process and permit application process.

For proposals that will require an Environment Agency regulated permit, joint pre planning discussions with the Environment Agency, the planning authority and the developer are recommended in order that all interrelated issues can be considered at an early stage. This is particularly important where fundamental issues exist which may affect whether the development is acceptable. Guidance on developments requiring planning permission and environmental permits is available on the Environment Agency website.

3.9 Odour and Planning

An odour assessment will be required for any development with a potential for emitting odour, or that will add receptors to an area that may be subject to odour.

Unlike Local Air Quality Management, there are no prescribed limits for odour. The subjectivity of the human response to odour means that it is often not easy to set objective odour exposure standards. However, these difficulties must not preclude the use of objective measurements, in assessing potential nuisance and in identifying control measures, where these can be justified and are considered to be appropriate.

In all cases where the generation of odours from the development can be readily anticipated, the Council shall expect to be provided with objective evidence that demonstrates that odour emissions will be adequately controlled to prevent any significant loss of amenity to neighbouring sensitive land uses. This is important not least because possible odour mitigation measures could in themselves have land use and amenity implications.

Careful consideration should be given to the location of new odour sensitive developments such as residential developments, schools and hospitals near to existing odour sources. Encroachment of odour sensitive development around such odour sources may lead to problems with the site becoming the subject of complaint, essentially creating a problem where there was not one before.

Ideally a robust screening process at the application submission stage should help to identify new developments where adverse odour impacts may arise. Screening should aim to identify applications where odours are a potential issue, whether the application site is the source, or the application site is close to potential odour sources. If such new developments are identified early on, this allows early consultation with the Council.

3.9.1 Odour Impact Assessments

At the pre-application stage, sources of odour from or near to proposed developments need to be identified and assessed for potential impact. Odour Impact Assessment (OIA) is a useful tool in support of applications where the potential for odour problems has been clearly identified and where such studies are considered to be necessary and proportionate to the extent of odour problems. A properly structured OIA should seek to identify:

- All potential sources of odour and their estimated rates of emission from the new development;
- The potential for fugitive emissions of odour together with the means to control these emissions;
- The location of sensitive receptors;
- A wind rose for the site in question;
- Potential pathways to sensitive receptors;
- A description of the potential impacts including evidence provided by dispersion models taking cognisance of topographical features;
- Details of any necessary odour abatement systems or other mitigation measures with justifications for the measures being proposed; and
- Details of an Odour Management Plan (OMP) with contingency arrangements for responding to any unforeseen or unusual odour emission episodes.

3.9.2 Odour Modelling

Planning applications for developments which have the potential to cause off-site odour impact should be supported by an evaluation of the expected odour impact and proposals for mitigation measures, where necessary. The degree of detail provided in such assessments should be proportionate to the risk of odour impact, taking account of factors including the proximity of receptors, the scale of the proposed activity and the nature of the proposed development.

At one extreme, for small scale developments such as a new hot food takeaway, a relatively simple risk assessment based approach is likely to be appropriate, providing it is carried out in a thorough manner. An example of an Odour Risk Assessment Protocol for commercial kitchens is provided in the Defra Guidance on the *'Control of Odour and Noise from Commercial Kitchen Exhaust Systems'*. The Council has a published guidance note on Commercial Kitchen Extraction Systems titled *'Planning Guidance Note for Developers: Ventilation/Extraction Systems for Catering Establishments'* providing more detailed advice on this area, available upon request from Development Management.

In higher risk examples, such as a new sewage treatment works, a more rigorous approach to evaluating odour impact may be appropriate. Odour Impact Assessments are typically based on computer models which predict odour dispersion from the proposed development based on local weather records and estimated or predicted odour emissions from the proposed development. The outputs from dispersion modelling are usually presented as odour contours or "isopleths" on a base map of the area, and this allows potential odour impact to be predicted at odour sensitive receptor locations, such as residential developments, in the area and for this impact to be compared with 98th percentile impact benchmarks. Dispersion models can also be used to determine the level of odour mitigation required to control odour impact, or to determine the maximum permissible odour emissions from a site to avoid off-site impact or loss of amenity. These predictions, and the mitigation measures which can be prescribed as a result of objective measurement, can play a key role in preventing long term impact of odours downwind of the site.

Larger scale industrial developments with odour potential are likely to fall under the Pollution Prevention and Control Regime. Odour assessment should be considered jointly for any permit and planning application.

Any odour assessment for higher risk sites should relate to the most appropriate and current guidance for example to the Environment Agency H4 Odour Management Guidance and the Odour Guidance for Local Authorities published by Defra. An example of the tools available to estimate odour impact is given in Table 3.9.

The Public Protection Service should be contacted prior to any odour assessment for agreement on the most suitable method.

Tool	Comments
Source emission characterisation combined with computer dispersion modelling	Usually used as a predictive tool to assess the impact of proposed plant but also successfully used to identify causes of off-site odour impact, establish long-term odour exposure levels and to rank relative efficacies of odour abatement strategies. Requires the input of source emission data (in odour units) that may require specialist input. Allows comparison with numerical odour standards, for advantages and disadvantages of this. Source emissions can be characterised using measurement at source EN 13725:2003 (or latest current method)
Field odour assessment using "sniff test"	For existing that may impact upon the development. Usually suitable for sites with less odour impact. Surveys must be designed in agreement with the local authority. 'FIDOL' factors from the Defra guidance or similar should be used to assess significance.

Table 3.9: Main Tools Available to Estimate the Significance of Odour Impact

3.9.3 Odour Control Mitigation

The option of preventing and controlling odours relies on an ability to intervene effectively at one or more stages of the *'Source–Pathway–Receptor'* process, as follows:

- Preventing the release of odorous air to the atmosphere by containment and odour control
- Preventing the formation of odorants in solid and liquid material within a process;
- Preventing the transfer of odorants from a mixture to gas phase [air];
- Preventing the transportation of odorants from the source reaching receptors;
- Influencing the quality of the odour to reduce the perception of odours as a nuisance by receptors; and
- Ensuring effective communication

Odour Source	Proactive / Planned Measures
Sewage treatment	Closed-containment process over high emission areas; Odour control systems / filters
Hot food takeaways, food processing and commercial kitchens	Ventilation design; Extraction & filtration system; Vents located away from residents
Paints & solvents	Ventilation design; Solvent extraction & recovery system; Vents located away from residents
Animals, livestock & poultry	Site assessment and building design for odour control; Stocking density planned and agreed
Industrial / chemical processes	Ventilation design; Extraction & filtration system; Vents located away from residents
Storage & spills	Design of containment and covered areas for moving liquid

Table 3.10: Examples of odour control measure

3.10 What Information is Available?

The Council holds an inventory of emissions and routinely monitors air quality across the Borough. Annual air quality review and assessment reports are written which should be referenced for any air quality assessment. This information can be made available upon request or be downloaded from the Council website. Other information and guidance is available from the air quality section of the Defra website.

3.11 How the Council will decide whether the development is appropriate

The Council will consider the relative merit of the application with regard to national and local planning policy. The relative weight given to air quality will depend on the significance of any impact. The Council is committed to reducing air quality levels in places where people live, work and relax and it accepts that the National Air Quality Objectives provide the basis for assessing significance as detailed in this document. Any development that would interfere with an Air Quality Management Plan, result in a breach of a relevant objective or create a potential new AQMA will be treated as significant.

3.12 References

1. Technical Guidance LAQM. TG(09), Defra (2009)
2. Development Control: Planning for Air Quality, Environmental Protection UK (2010)
3. Air Quality Strategy for England, Scotland, Wales and Northern Ireland, Defra (2007)
4. House of Commons Environmental Audit Committee Report on Air Quality, 2010
5. Technical Guidance: Screening Assessment for Biomass Boilers, AEA (2008)
6. House of Commons Environmental Audit Committee Report on Air Quality (2010)
7. BRE guide 'Control of dust from construction and demolition activities'
8. Odour Guidance for Local Authorities, Defra (2010)
9. H4 Odour Management Guidance, Environment Agency (2009)
10. Guidance on the Control of Odour and Noise from Commercial Kitchen Exhaust Systems, DEFRA, 2005
11. Specification for Kitchen Ventilation Systems DW/172 Heating and Ventilation Contractors Association 2005
12. Planning Guidance Note for Developers: Ventilation/Extraction Systems for Catering Establishments, Warrington Borough Council (2007)
13. Guidance for Developments Requiring Planning Permission and Environmental Permits, Environment Agency (2012)

3.13 Glossary

AADT: Annual average daily traffic.

AQAP: Air quality action plan: required by a local authority to identify and implement actions to reduce air quality concentrations below the objectives.

AQMA: Air quality management area: a local authority is required by the Environment Act 1995 to declare an AQMA where it believes UK air quality objectives prescribed in Regulations are being exceeded.

AQO: Air quality objective: targets set by the Government and Devolved Administrations as minimum acceptable standards of air quality.

CO: Carbon monoxide.

CO_2: Carbon dioxide.

Defra: Department for Environment, Food and Rural Affairs: responsible for environment policy, including the production of the Air Quality Strategy for England, Scotland, Wales and Northern Ireland, and the supervision of the LAQM and LAAPC regimes.

EA: Environment Agency (England and Wales). Regulatory body with responsibility for PPC Part A1 Permit control.

EIA: Environmental impact assessment.

EPR: Environmental Permitting Regulations: regulatory system of permits controlling certain emission from specified industry sectors.

EU: European Union.

HIA: Health impact assessment. Assessment of the health impact from emissions associated with a development

LAQM: Local air quality management: system introduced by the Environment Act 1995 to address local air quality "hot spots". It includes the Review and Assessment process, the designation of AQMAs and the development of action plans.

LTP: Local Transport Plans in England provide mechanism by which local highways authorities set out strategies for improving public transport, roads and other transport within their authority.

NO2: Nitrogen dioxide.

NOx: Oxides of nitrogen: NOx is the sum of NO and NO_2 (plus other minor oxides) and is often used to express the emitted pollutant quantity. NO_2 is largely a secondary pollutant, being formed by the oxidation of nitric oxide (NO) after emission, although some NO_2 is directly emitted, the proportion of which is related to the exhaust treatment technology.

PAH: Polycyclic Aromatic Hydrocarbon: a complex group of pollutants some of which are powerful carcinogens. Usually represented in concentration terms by the marker compound Benzo[a]pyrene (B[a]P).

PM10 and PM2.5: Particulate matter with an aerodynamic diameter of less than 10 microns (µm) (PM10) or less than 2.5 µm (PM2.5), expressed in units of $\mu g/m^3$.

PPC: Pollution prevention and control: Europe wide system which replaced the earlier UK based integrated pollution control (IPC) system. Legislations delivered through the Environmental Permitting Regulations (2010), as amended.

SO2: Sulphur dioxide.

TA: Transport Assessments consider the potential impact from new development on a transport network.

VPH: Vehicles per hour.

3 Air Quality

4 Contaminated Land

4.1 Introduction

Certain types of contamination are known to be hazardous to human health, property and the wider environment. Typical causes of land contamination include previous industrial or commercial usage, mining, and the land-filling of wastes. Land may also become contaminated due to its close proximity to contaminated areas. Contaminating substances include metals, organic substances, ground gases and high/low pH. Contamination may not occur solely as a result of human activities; land can become contaminated as a result of natural processes or its natural state.

4.1.1 What is Contaminated Land?

The definition of contaminated land (from Section 78A(2) of the EPA 1990) is:

> **" …any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in, on or under the land, that:**
>
> **(a) Significant harm is being caused or there is the significant possibility of such harm being caused; or**
>
> **(b) Pollution of controlled waters is being, or is likely to be, caused…"**

With respect to controlled waters, the Water Act 2003 (Chapter 37, Section 86) has amended the second part of the definition so that it applies only where:

> **"Significant pollution of controlled waters is being caused, or there is a significant possibility of such pollution being caused"**

Part 2A of the EPA 1990 (known as 'Part 2A'), as inserted by Section 57 of the Environment Act 1995, was brought into force on 1st April 2000. In most cases, Councils are the enforcing authorities for the contaminated land regime under Part 2A. They have a duty to identify contaminated land within their area and, except for certain categories, decide what remediation is required and ensure that it takes place.

A key element of the Part 2A regime is the Source-Pathway-Receptor pollutant linkage model. Each element is defined as follows:

- The source is the contamination in, on or under the land;
- The pathway is the route by which the contamination reaches the receptor; and
- The receptor is defined as living organisms, ecological systems or property which may be harmed.

Without the clear identification of all three elements of the pollutant linkage, land cannot be identified as contaminated land under the regime (Table 4.1).

To fall within the statutory definition of Part 2A, the land, when assessed in the context of its current use must be capable of causing significant harm to human health or other specified receptors and/or pollution of controlled waters. Part 2A addresses "unacceptable risk". These and other key terms are defined within Part 2A and also in the statutory guidance.

HUMAN HEALTH
1) *Uptake of contaminants by food plants grown in contaminated soil* – heavy metals (e.g. cadmium, lead) and persistent organic pollutants including certain pesticides and veterinary products may result in an accumulation in food plants to concentrations where they exceed legal limits and/or may pose a hazard to human health. Uptake will depend on concentration in soil, its chemical form, soil pH, plant species and prominence in diet.
2) *Ingestion and inhalation* – substances may be ingested directly by young children playing on contaminated soil, by eating plants which have absorbed metals or are contaminated with soil or dust. Ingestion may also occur via contaminated water supplies. Metals, some organic materials and radioactive substances may be inhaled from dusts and soils.
3) *Skin contact* – soil containing tars, oils and corrosive substances may cause irritation to the skin through direct contact. Some substances (e.g. phenols) may be absorbed into the body through the skin or through cuts and abrasions.
4) *Irradiation* – As well as being inhaled and absorbed through the skin, radioactive materials emitting gamma rays can cause a radiation response at a distance from the material itself.
5) *Fire and explosion* – materials such as coal, coke particles, oil, tar, pitch, rubber, plastic and domestic waste are all combustible. If heated by contact with buried power cables or careless disposal of hot ashes they may ignite and burn underground. Both underground fires and biodegradation of organic materials may produce toxic or flammable gases. Methane and other gases may explode if allowed to accumulate in confined spaces.
BUILDINGS
1) *Fire and explosion* – underground fires may cause ground subsidence and cause structural damage to buildings. Accumulations of flammable gases in confined space leads to a risk of explosion. Underground fires may damage building services.
2) *Chemical attack on building materials and services* – sulphates may attack concrete structures. Acids, oils and tarry substances may accelerate corrosion of metals or attack plastics, rubber and other polymeric materials used in pipe work and service conduits or as jointing seals and protective coatings to concrete and metals.
3) *Physical* – blast-furnace and steel-making slag (and some natural materials) may expand if ground conditions are changed by development. Degradation of fills may cause settlement and voids in buried tanks and drums may collapse as corrosion occurs or under loading from construction traffic.
NATURAL ENVIRONMENT
1) *Phytotoxicity (prevention/inhibition of plant growth)* – some metals essential for plant growth at low levels are phytotoxic at higher concentrations. Methane and other gases may give rise to phytotoxic effects by depleting the oxygen content in the root zone.
2) *Contamination of water resources* – soil has a limited capacity to absorb, degrade or attenuate the effects of pollutants. When this is exceeded, polluting substances may enter into surface and groundwater.
3) *Ecotoxicological effects* – contaminants in soil may affect microbial, animal and plant populations. Ecosystems or individual species on the site, in surface waters or areas affected by migration from the site may be affected.

Table 4.1: Examples of Pathways and Effects from Land Contamination

The planning system uses a slightly different definition for contaminated land, which is not based solely on the legal definition set out in Part 2A. A wider range of contamination and receptors is relevant to planning but the degree of harm or pollution and the approach to remediation are essentially the same.

However, to avoid confusion with the term 'contaminated land' the planning regime uses the wider term "land affected by contamination". This is intended to cover all cases where:

"The actual or suspected presence of substances in, on or under the land may cause risks to people, human activities or the environment, regardless of whether or not the land meets the statutory definition in Part 2A".

Part 2A was introduced specifically to address the historical legacy of land contamination, whereas the planning system aims to control development and land use in the future. Therefore assessing risks in relation to the future use of any land is primarily a task for the planning system. Applicants/Developers should always to take into account Part 2A because a change in use may cause the land to fall within the statutory definition of contaminated land by creating a pollutant linkage.

As stated above, **the NPPF states that "As a minimum, the land should not be capable of being determined as contaminated land under Part 2A of the Environmental Protection Act 1990".**

Part 2A was designed and intended to encourage voluntary remediation and should only be used where no appropriate alternative solution exists. The Contaminated Land Strategy published by the Council provides details of the planning system to ensure that land is made suitable for use when it is redeveloped and/or encouraging polluters and owners of land to deal with problems without the need for Part 2A to be used directly.

4.2 Roles and Responsibilities

4.2.1 Role of the Owner/Developer

The Applicant/Developer of any land is responsible for ensuring that the proposed development is safe and suitable for use or can be made so by remedial action. In order to demonstrate this, the Applicant/Developer should determine:

(i) Whether the land in question is already affected by contamination through Source-Pathway-Receptor pollutant linkages;

(ii) Whether the proposed development will create new linkages, e.g. new pathways by which existing contaminants might reach existing or proposed receptors; and

(iii) What action is needed to break those linkages and avoid new ones, deal with any unacceptable risks and enable safe development and future occupancy of the site and neighbouring land.

The Applicant/Developer should satisfy the LPA that unacceptable risk from contamination will be successfully addressed through remediation without undue environmental impact during and following the development. It is the responsibility of the Applicant/Developer to ensure that the investigation and remediation of land contamination is carried out by a suitably qualified person with experience in contaminated land i.e. an environmental consultant. Carrying out unacceptable/insufficient work or submitting unsuitable reports to the LPA may lead to delays, as work may need to be redone.

Applicants/Developers must be aware of their responsibility to deal with pollution issues that may present risk, and also the liability they may be exposed to under environmental legislation e.g. the Environmental Damage Regulations (2009). Where an agreed remediation scheme includes future monitoring and maintenance schemes, arrangements should be made to ensure that any subsequent owner of the site is fully aware of these requirements and assumes on-going responsibilities associated with the land.

The Applicant/Developer should be aware that actions or omissions on their part could lead to future liability being incurred under Part 2A, e.g. where development fails to address an existing unacceptable risk or creates such a risk by introducing a new receptor or pathway. Additionally the developer has a responsibility to protect the welfare of construction workers operating on potentially contaminated sites and to manage other potential environmental impacts arising from the site and/or the proposed development works on the site.

4.2.2 Role of the LPA

The LPA has a duty to take account of all material planning considerations including land contamination during the preparation of Local Plans and when considering an application for planning permission. Usually where there is reason to believe land may be contaminated, or the proposed development is of particular sensitivity e.g. housing a full assessment may be required in advance of planning approval being issued, a planning condition requiring assessment of possible contamination may be recommended by the LPA and applied to the decision notice.

When considering development on land affected by contamination, the principal objective of the LPA is to ensure that any unacceptable risks to human health, property and/or the wider environment are identified so that appropriate action can be considered and then taken to address those risks. In achieving this objective, the LPA should assist in providing the necessary confidence to owners and occupiers of the land after development, regarding the condition and the ranking of the land in relation to relevant environmental protection regimes, such as Part 2A.

4.2.3 Role of the Public Protection Service

Contaminated Land Officers within the Public Protection Service are responsible for addressing contaminated land issues using Part 2A and the planning system. The Public Protection Service and also the EA act as consultees to the LPA regarding risks to human health and controlled waters. The Public Protection Service may consult with the Health Protection Agency (HPA) and/or Primary Care Trust (PCT) where necessary on matters relating to human health, including radiation, in respect of planning applications.

4.2.4 Role of other organisations

The EA are a consultee for any planning applications, where development is proposed on potentially contaminated land. Where the EA are consulted and land contamination is an issue they will seek to implement the objective of the water framework directive to prevent and limit the entry of pollutants into groundwater.

Within the LPA, Building Control will also need to be satisfied that any risks to the development from potential contamination have been adequately addressed. The Building Regulations 2000 require developers to demonstrate that hazards from potential contamination have been properly assessed and appropriate measures put in place to address any risk.

4.3 Contaminated Land & Planning

The following flowchart below shows the typical contaminated land and planning procedure:

Figure 4.1 Flowchart showing idealised Planning & Contaminated Land Procedure

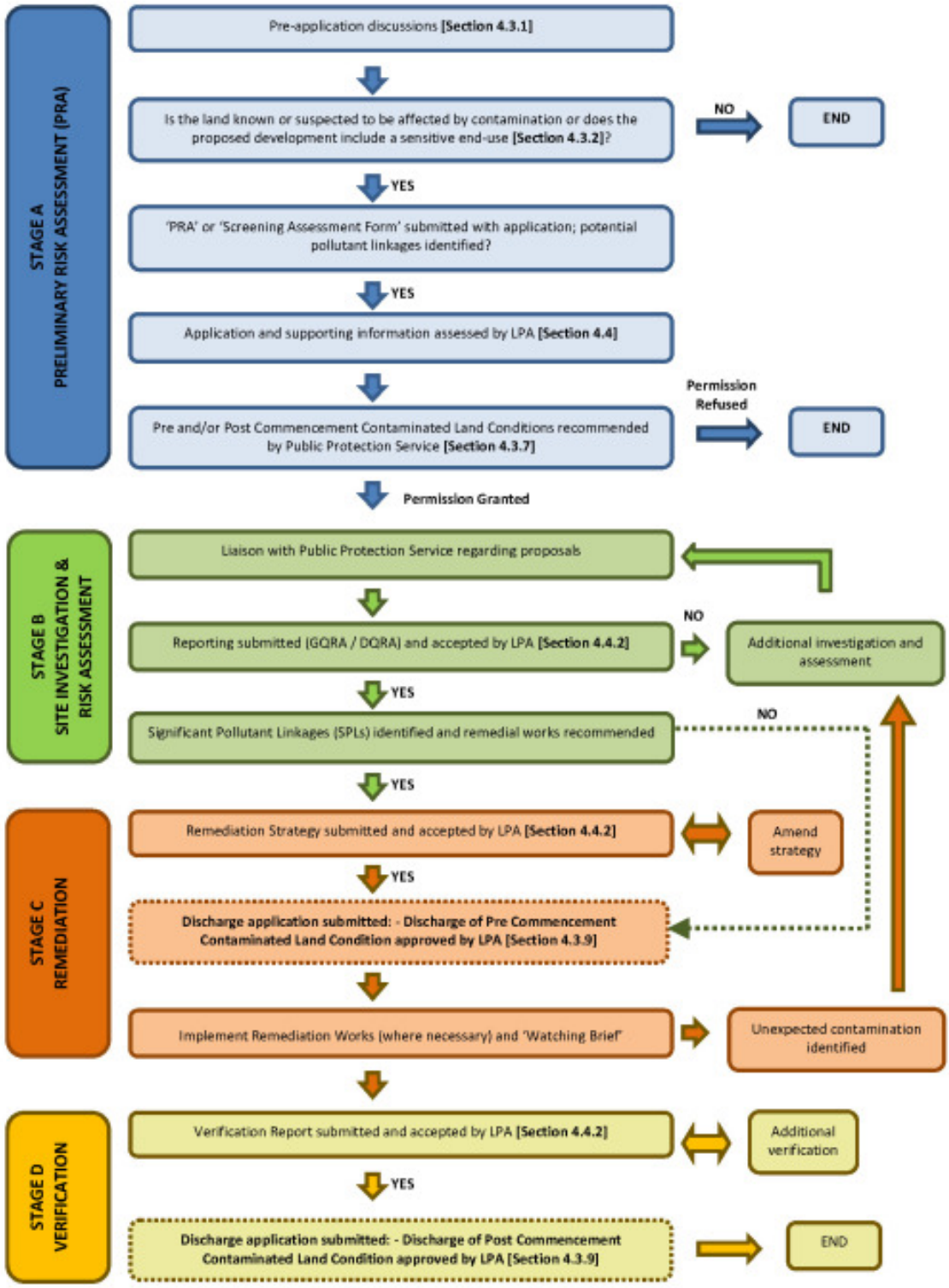


Figure 4.1 Flowchart showing idealised Planning & Contaminated Land Procedure

4 Contaminated Land

A precautionary approach should be assumed when considering planning applications in relation to any land affected by contamination. This includes land subject to or adjacent to previous industrial use (Table 4.2) and also where uses are being considered that are particularly sensitive to contamination, as follows:

- All residential developments (houses, flats, nursing homes etc.);
- Allotments;
- Schools;
- Nurseries and crèches;
- Children's play areas and playing fields;
- Mixed use developments including vulnerable proposals.

Where development is proposed on land that is or may be affected by contamination, an assessment of risk should be carried out by the Applicant/Developer for consideration by the LPA before an application is determined. Any existing or new unacceptable risks should be identified and proposals made to deal with them effectively as part of the development process.

When a planning application is submitted to the LPA, the Public Protection Service will be consulted and the application (with supporting information) assessed to determine whether there is the potential for contamination to influence the land or 'site', whether suitable measures have been proposed to address any risks and whether the proposed development is acceptable.

If there is the potential for contamination to affect the site, or the end-use is particularly sensitive, recommendations will be made that certain conditions be imposed upon the development. These are intended to ensure that the site is made suitable for its proposed end-use and ensure the safety of site workers, future site users, and the protection of property and the wider environment and are discussed in more detail in Section 4.3.7.

It is essential that the developer provides as much information to the LPA at every stage of the planning process. However trivial, withholding information may cause a delay to the application process. The onus is on the Applicant/Developer to keep the LPA well informed about the development at all times so that decisions can be made swiftly and the application process completed as quickly as possible. If a response from the LPA is not immediately forthcoming, this should not be taken as confirmation that document submissions have been approved or that work on site can proceed. Again, the onus is on the Applicant/Developer to obtain written approval from the LPA for any documents/information submitted in support of a planning application.

A wide range of industries may historically have contaminated, or have the potential to contaminate the land they are sited upon (and neighbouring land) — The DOE Industry Profiles give further details:
• Smelters, foundries, steel works, metal processing & finishing works; • Coal & mineral mining & processing, both deep mines and opencast; • Heavy engineering & engineering works, e.g. car manufacture, shipbuilding; • Military/defence related activities; • Electrical & electronic equipment manufacture & repair; • Gasworks, coal carbonisation plants, power stations; • Oil refineries, petroleum storage & distribution sites; • Manufacture & use of asbestos, cement, lime & gypsum; • Manufacture of organic & inorganic chemicals, including pesticides, acids/alkalis, pharmaceuticals, solvents, paints, detergents and cosmetics; • Rubber industry, including tyre manufacture; • Munitions & explosives production, testing & storage sites; • Glass making & ceramics manufacture; • Textile industry, including tanning & dyestuffs; • Paper & pulp manufacture, printing works & photographic processing; • Timber treatment; • Food processing industry & catering establishments; • Railway depots, dockyards (including filled dock basins), garages, road haulage depots, airports; • Landfill, storage & incineration of waste; • Sewage works, farms, stables & kennels; • Abattoirs, animal waste processing & burial of diseased livestock; • Scrap yards; • Dry cleaning premises; • All types of laboratories.
Other uses & types of land that might be contaminated include:
• Radioactive substances used in industrial activities not mentioned above – e.g. gas mantle production, luminising works; • Burial sites & graveyards; • Agriculture – excessive use or spills of pesticides, herbicides, fungicides, sewage sludge & farm waste disposal; • Naturally-occurring radioactivity, including radon; • Naturally-occurring elevated concentrations of metals and other substances; • Methane & carbon dioxide production & emissions in coal mining areas, wetlands, peat moors or former wetlands.

Table 4.2: Examples of Potentially Contaminating Uses of Land and Situations Where Land may be affected by Contamination

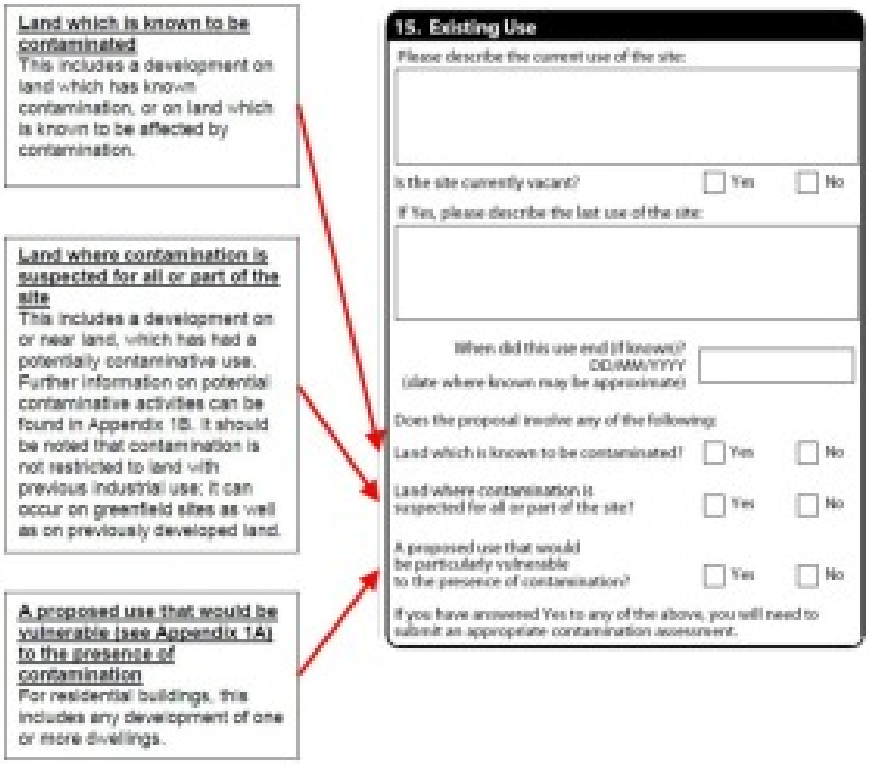
4.3.1 Pre-Application Discussions

Where a large scheme or development is proposed on land that is or may be affected by contamination, it is strongly recommended that an assessment of risk should be carried out by the Applicant/Developer for consideration by the LPA in advance of submitting an application. Any existing or new unacceptable risks should be identified and proposals made to deal with them effectively as part of the development process. Where practicable, Applicants/Developers should arrange pre-application discussions with the LPA and other regulators. Such discussions will also help to identify the likelihood and possible extent and nature of contamination and its implications for the development being considered. They will also assist in scoping any necessary Environmental Impact Assessment and identify the information

that will be required by the LPA to reach a decision on the application when it is submitted. The LPA will advise intending Applicant/Developers to undertake these steps where they appear necessary but have not yet been addressed.

4.3.2 Completing the 'Existing Use' Section of the Planning Application Form

Some of the national planning application forms (1APP) include a section on land contamination. The 'Existing Use' section is either Question 15, 16, or 19, depending on the relevant 1APP form used. The Applicant/Developer should identify if there is a potential for land contamination at the site or if a sensitive/vulnerable use is being introduced as outlined above. Applicants must address the questions in the 'Existing Use' section (shown below) when preparing a planning application.



Source: Yorkshire and Humberside Pollution Advisory Council, March 2011

If the answer to any of the questions in the 'Existing Use' section is 'Yes', then an appropriate contamination assessment must be submitted with the planning application; for further details/information refer to Section 4.4.

If the application is for an individual residential property (i.e. one dwelling with a garden), a Screening Assessment Form, may be used as a basic contamination assessment. This proforma is available for download on the Council website or by contacting the Public Protection Service. This form guides the applicant through the development proposal and previous uses of the site to aid in the decision as to whether land contamination is an issue. If no potential sources of contamination are identified, then no further work is required however this is dependant on review and agreement by the Public Protection Service. If potential sources of contamination are identified, then further investigation may be required and the Public Protection Service should be contacted for advice. Please note that this form is for individual residential property developments only and will not be accepted for multiple dwellings.

4.3.3 Determining Planning Applications

When considering any applications, the LPA will need to be satisfied that the development does not create or allow the continuation of unacceptable risk arising from land contamination. Therefore any significant pollutant linkages should be broken by removing the source, blocking the pathway or removing receptors. The Applicant/Developer should also ensure that the development will not create new pollutant linkages by changing or creating exposure pathways e.g. creating new pathways to groundwater by site investigation drilling or piling.

The Applicant/Developer and LPA should recognise that contamination may pose problems on and other than the originating site. For example, contaminants may migrate or be transported by wind or water onto land that has no specific association with its former use. Contaminants may also be present on land where there is no specific record of former contaminative use. This is often the case where Made Ground or other unsuitable fill materials have been historically deposited on land, leading to the introduction of potential contaminants to surface geology.

While the most severe examples of contamination are often found in developed or former industrial areas, rural and urban fringe areas can also be affected. In addition, some areas may be affected by the natural occurrence of potentially hazardous substances, such as arsenic, lead or copper, which are the product of the underlying geology and bear little relation to previous or current land use.

The LPA will pay particular attention to the condition of a site and of neighbouring land where the proposed use would be particularly vulnerable to contamination, where the current circumstances or past use suggest that contamination may be present or where it has other relevant information. Full account should be taken of whether the proposed use or development is likely to be adversely affected by contamination. For example, the addition of a new storey to an existing building is unlikely to be significantly affected by contamination whereas lateral expansion onto former industrial land potentially carries a higher risk and building extensions or undertaking landscaping that disturbs the ground may breach protecting layers.

The standard of remediation to be achieved through the grant of planning permission for new development (including permission for land remediation activities) is the removal of unacceptable risk and making the site suitable for its new use, including the removal of existing pollutant linkages. All receptors relevant to the site should be protected to an appropriate standard.

For any development or change in use requiring remediation, the LPA should consider the impact of remediation activities on neighbouring land uses and the environment, including any offsite works such as those needed to control methane migration beyond the site boundaries. While some aspects may also be covered under separate pollution control regimes, the LPA should consider issues such as dust, noise and traffic movements arising from the remediation activities and the possible need for measures to control or mitigate them.

A balance should be struck between the overall social and economic benefits from the development, including the remediation proposals, and the temporary impacts of the remediation process. Applicants/Developers are recommended to carefully consider the waste management implications when deciding the best approach to remediation and the handling and treatment of contaminated soils and other material.

The LPA will need to be satisfied that the development can be carried out safely without unacceptable risks to workers, neighbours or other offsite receptors. It is important that risk to workers is managed using standard hierarchy of control measures under the Control of Substances Hazardous to Health (COSHH) Regulations 2002, the Construction (Design and Management) Regulations 2011 and other relevant legislation.

4.3.4 Outline Planning Applications

When considering outline planning applications, the LPA will need to be satisfied that it has sufficient information from the applicant about the condition of the land and its remediation and the full range of environmental impacts arising from the proposals to be able to grant permission in full at a later stage. The LPA should be satisfied, therefore, that the risks have been properly assessed and, if there is an unacceptable risk, the options appraised sufficiently to identify a viable remediation scheme that will reduce the risks to acceptable level, just as it would with a full application.

4.3.5 Consultation

In many cases, inspections carried out under Part 2A will have identified appropriate consultation areas. Where land has been or is being formally determined as contaminated land under Part 2A, the Public Protection Service will need to be satisfied that the Remediation Statement provided by the Applicant/Developer meets requirements in order to avoid a Remediation Notice being served.

The LPA should also consult the EA where they are carrying out a Part 2A inspection on behalf of the Council or where there appears to be risk to controlled waters that may need to be addressed as part of the development process. Other statutory bodies also have relevant responsibilities, including English Nature and English Heritage in relation to particular receptors. They should be consulted by the LPA where appropriate. LPAs should also consult other relevant Council departments, such as Building Control, Conservation & Archaeology, Engineering & Reclamation as necessary. Other bodies, such as water companies and local community and conservation or amenity groups may be able to advise on issues related to specific receptors.

4.3.6 Granting Planning Permission

The LPA may grant planning permission where it is satisfied that the proposed development will be appropriate, having regard to the information currently available about any land contamination at the site and the proposed remediation measures/standards. This will be subject to conditions where necessary, as discussed in Section 4.3.7.

The LPA may refuse permission if it is not satisfied on the basis of the information provided by the Applicant/Developer and that available from other sources, including the responses of those consulted, that the development would be appropriate. This could include cases where:

- Circumstances, including information available to the LPA, clearly suggest the possibility of contamination or of unacceptable risk and no information has been provided or obtained that excludes the reasonable possibility of such contamination or risk;
- The LPA considers that unacceptable risk exists and cannot be dealt with adequately to deliver a development that is suitable for its intended use and which results in the removal of such risks; or
- The steps needed to deliver an appropriate development and deal with unacceptable risk are not already in place and cannot be secured by suitable planning conditions, e.g. because these are not within the powers of the applicant/developer since action is needed on other land outside the applicant's/developer's control or influence.

4.3.7 Planning Conditions

In some cases, the information available when a planning application is being considered will be sufficient to resolve the main issues regarding land contamination from a planning perspective but insufficient to resolve all the details. Therefore, it may be appropriate to grant permission subject to conditions relating to the condition of the land, as stated above. General guidance on the use of planning conditions is provided in DOE Circular 11/95; and includes the following advice:

The LPA should consider the use of three-stage conditions that aim to:

- Provide for further investigation and characterisation of the site to confirm the nature and extent of contamination and validate the conceptual model and allow more refined risk assessment and appraisal of remedial options;
- To propose and receive approval for a remediation scheme that ensures the removal of unacceptable risks to make the site suitable for use; and
- To submit and receive approval for a validation report that demonstrates the effectiveness of the remediation carried out, preferably before building begins and certainly before the site is occupied by future users.

The Public Protection Service, in consultation with Development Management, has devised six conditions relating to land contamination; these are available to view on the Council website, along with a flow chart summarising the protocols for attaching a condition.

There are two main classifications of planning conditions that are attached to applications with respect to contaminated land:

- Pre-commencement Conditions: These are conditions or parts of conditions that are required to be satisfied prior to site works commencing;
- Completion Conditions: These are conditions or parts of conditions that are required to be, or can only be satisfied once site works have completed.

Pre-commencement conditions include the requirement to investigate and risk-assess the development site as well as (if applicable) the submission of an approved remediation scheme or strategy. Completion conditions include the requirement to report unexpected contamination; provide verification of remedial action taken; and the results or outcome of any on-going monitoring works required to be completed when site works have ceased.

During the development of any site there is the possibility of discovering previously unidentified contamination or risks. As such, each condition includes a section on the reporting of 'unexpected' contamination as well as submitting for approval an assessment of the risks and proposed remediation scheme, or alternatively confirming on completion of development the absence of any unacceptable risk from contamination.

In some cases, it may be necessary to require subsequent monitoring for the purposes of providing information on any changes that may occur in the status of a pollutant, pathway or receptor identified as part of a pollutant linkage when permission was originally granted. This will enable the LPA to consider the continuing integrity of any remediation scheme and any changes in circumstances affecting the pollutant linkages in question. The inclusion of post-development monitoring or maintenance programmes is a provision within each version of the Condition.

4.3.8 Permitted Development Rights

Where a site has been investigated and risk-assessed in terms of land contamination and remediation or remedial measures have been deemed necessary, the inclusion or reflection of the existing remedial measures is required where any new development takes place at that site. This is of particular relevance to extensions or works covered under the auspices of Permitted Development Rights (PDRs). Where sites or buildings have received remedial measures or remediation, the LPA may rescind the PDRs associated with the original planning consent to ensure that any alterations or redevelopment on the site will require planning permission and as such, take existing remediation or remedial measures into account when granting consent.

4.3.9 Discharge of Conditions

Once the appropriate information has been submitted to the LPA, and subsequently approved, the Public Protection Service will make recommendation to the LPA that conditions, or parts of conditions, relevant to the submitted information can be discharged. The LPA will then act upon these recommendations and formalise the discharge of conditions or parts of conditions.

Regardless of the type of condition to be discharged or the nature of recommendation made by the Public Protection Service, any discharge of condition must be the subject of a formal discharge application, made to Development Management at the following address: *devcontrol@warrington.gov.uk*

Development Management will charge a fee to process and administer the discharge application.

4.4 What Information Is Required?

It is essential that redevelopment of land affected by contamination is undertaken with a sufficient degree of transparency and openness. This will maintain public confidence in the development and minimise any potential for blight. Maintaining a comprehensive set of records will assist the LPA, and other regulators, and ensure that any future enquiries about the development can be answered effectively.

All assessments of land affected by contamination should be carried out by or under the direction of a suitably qualified competent person i.e. a consultant and in accordance with BS10175 (2011) Code of Practice for the Investigation of Potentially Contaminated Sites. Considerable effort and expense can be saved if an applicant and LPA agree to place reliance on the expertise of a single impartial expert of this kind with regard to technical matters. All aspects of investigation and risk assessment relating to land contamination should also follow the guidelines laid out within *CLR11 'Model Procedures for the Management of Land Contamination'*.

The Applicant/Developer is responsible for ensuring the safe development and secure occupancy of a site and that appropriate competent professional advice is available to:

- Carry out any necessary investigations;
- Assess risk; and
- Design and execute any necessary remediation works, including verification of their effectiveness and appropriate monitoring and maintenance where these may be needed.

The LPA will need to consider the presence of contamination and any risks posed in the public interest. In doing so, it should consult appropriately. However, it is entitled to require the Applicant/Developer to provide at application stage, suitable information and expert advice on its implications. It is entitled to rely on that advice in considering the application and the circumstances of the land or to challenge it on the basis of similarly-qualified expert advice accessible to it in-house or externally. Those providing expert advice to Applicants/Developers should be aware of the future reliance that may be placed on it.

4.4.1 Submission Format

It is strongly encouraged that draft copies of any reports are issued to the Public Protection Service as part of any on-going discussions. This is often useful for the purposes of seeking an informal view on findings or proposals before proceeding to formal submission.

Formal submission of reports, for the purposes of discharging planning conditions, should be sent directly to Development Management.

4.4.2 Assessing the Adequacy of Submissions

Information submitted in support of planning applications must be of an acceptable minimum standard in order to satisfy the LPA. The guidance contained within this section aims to inform Applicants/Developers of the procedural requirements of a risk-based approach to land contamination, as defined in current UK legislation and guidance. A detailed technical framework for investigating and dealing with land affected by contamination is contained within the EA and Defra guidance document *CLR 11, 'Model Procedures for the Management of Land Contamination'*. The process involves identifying, making decisions on, and taking appropriate action to deal with, land contamination in a

way that is consistent with government policies and legislation. The approach outlined below is consistent with the CLR 11 technical framework and is based on a staged or tiered approach to risk assessment, which includes the following four key elements:

- Risk Screening;
- Generic Quantitative Risk Assessment (GQRA);
- Detailed Quantitative Risk Assessment (DQRA);
- Verification / Validation.

Risk screening generally involves developing a Conceptual Site Model (CSM), which identifies whether there could be any potentially unacceptable risks at the site. The CSM may then be used to determine if any further assessment is required. If this preliminary assessment clearly demonstrates that contamination at the site poses no unacceptable risks (i.e. no source-pathway-receptor linkages) then quantitative assessments may not be required.

The procedure for investigating a potentially contaminated site would be expected to meet the criteria outlined in British Standard *BS10175:2011 'Investigation of Potentially Contaminated Sites – Code of Practice'*. Typical components of a report submitted in support of a planning application would generally include the following stages (A-D):

- **STAGE A**: Preliminary Risk Assessment (PRA) (often referred to as a Phase 1 Investigation or Desk Study);
- **STAGE B**: Site Investigation & Risk Assessment (GQRA/DQRA);
- **STAGE C**: Remediation Scheme;
- **STAGE D**: Verification Report (often referred to as a Validation or Completion Report).

A more detailed step by step guide of the site assessment can be found on the Council's website. The guide gives an overview of the stages and reporting required at each stage. A helpful checklist of requirements in relation to each of the stages (A-D) outlined above can be also found on the website.

STAGE A: Preliminary Risk Assessment (PRA)

A PRA (sometimes referred to as a 'Phase 1 Investigation' or 'Desk Study') should provide a preliminary assessment of risk by interpreting information on a site's history, considering the likelihood of contamination being present and making an initial hazard assessment. A PRA typically consists of a desk study, site reconnaissance, development of a Preliminary CSM and a basic hazard assessment.

A PRA comprises a search of available information and historical maps, which can be used to identify the likelihood of contamination being present. The two main indicators for the likely presence of contamination at a site are past industrial uses and/or close proximity to a landfill. A detailed appraisal of documentary research can be found in the Department of Environment (DoE) guidance document, *CLR3 'Documentary Research on Industrial Sites'*.

Industry profiling is another key component of a PRA. Where a site has comprised a former land-use, it is possible to derive potential contaminants that may be present according to the type of former land use at the site. These potential contaminants or 'Contaminants of Concern' can then be used to inform site investigation proposals, which are also often included in PRA recommendations. The DoE *'Industry Profile'* series of guidance documents provide potential contaminants for a range of industrial land uses and are available on th EA website.

A simple Site Reconnaissance or Walkover survey is conducted to identify if there are any obvious signs of contamination at the surface. Further information regarding site inspections can be found in *CLR2 'Guidance on Preliminary Site Inspection of Contaminated Land'*. A CSM is a representation (text and/or graphics) of the relationship(s) between contamination source(s), pathway(s) and receptor(s) developed on the basis of hazard identification. Developing a CSM should be viewed as an iterative process that should be refined during subsequent phases of assessment. Using the information gathered, the CSM is constructed and a basic hazard assessment is carried out.

The minimum requirement that should be provided by an Applicant/Developer is the reporting of a PRA and Site Reconnaissance. While they may provide a useful indication of the possible presence of contamination, commercial environmental searches will not be sufficient to establish the presence or absence of contamination and will not fully meet the requirements that should accompany a planning application, since these searches only provide factual information. Interpretation is necessary to develop a CSM, which identifies plausible pollutant linkages as a basis for assessing the risks and appraising the options for remediation.

A PRA and site reconnaissance will assist in determining the need for and scope of further investigation, the problems that may require remediation and whether remediation can be secured by means of planning conditions. It may provide sufficient evidence that the planning decision can be made based on an appropriate CSM and the LPA being satisfied that there is a viable remedial solution. Where the PRA and Site Reconnaissance do not provide sufficient information to assess the risks and appraise remedial options, further investigations will need to be carried out before the application is determined.

If the PRA findings indicate that no contamination concerns exist at the site then further action may not be necessary, although it is a requirement to submit the report and confirm this with the Public Protection Service before proceeding.

STAGE B: Site Investigation & Risk Assessment (GQRA/DQRA)

A GQRA (often referred to Phase 2 site investigation) aims to reduce the uncertainties identified in the initial CSM by quantifying potential contamination at the site. The data obtained will be used to inform a decision as to whether the site is potentially harmful. A GQRA report generally consists of an intrusive site investigation and a subsequent generic risk assessment. The investigation process should seek to clearly identify and characterise plausible source-pathway-receptor linkages at the site and provide information for the refinement of the initial CSM.

A DQRA may be required where levels of contaminants are identified above the GQRA criteria or where large amounts of contamination are encountered to determine whether there are actual risks to identified receptors. DQRA can also be used to derive clean-up concentrations for levels of contamination which will remain on site following any proposed remedial works.

If the GQRA/DQRA findings indicate that no contamination concerns exist at the site, then further action may not be necessary, although it is a requirement to submit the report and confirm this with the Public Protection Service before proceeding further.

STAGE C: Remediation Scheme

Often known as a 'Remediation Strategy', this is a document detailing what action is to be carried out so that contamination no longer presents a risk to site users, property or ecological systems. The document is produced after an 'Options Appraisal', where various remedial options are considered and may include measures such as the removal of contamination, encapsulation of contaminants, treatment of contaminants or measures to break pollution linkages. Please note that Government policy encourages sustainable methods of remediation.

A Remediation Scheme should be submitted where a site investigation identifies levels of contamination that will require remediation prior to the site being suitable for its intended use. This strategy should include full details of how contamination at the site will be addressed and demonstrate that the standard of remediation work complies with current best practice and guidance.

The Remediation Scheme should be submitted to the Public Protection Service and the EA for approval before site works commence.

STAGE D: Verification / Validation / Completion Report

Where contamination has been found and/or remediated, the Applicant/Developer should submit a verification report to confirm remedial works, fill imports/exports and whether unexpected contamination was encountered. In certain circumstances it may be necessary for the Applicant/Developer to conduct

post-completion monitoring. This should be undertaken to the approval of the LPA and results of the monitoring should be submitted for review. For limited remediation works or protective works a verification statement alone may be acceptable, but prior confirmation of this should be obtained from the LPA.

The Verification Report should provide confirmation that all measures outlined in the approved Remediation Scheme/Strategy have been successfully completed, including where appropriate, validation testing. Recommendations to discharge contaminated land conditions will only be made once the Public Protection Service has received and approved a satisfactory verification report.

4.4.3 Timescales and Programming

Applicants/Developers should note that an intrusive investigation and subsequent risk assessment can take up to three months to complete. This excludes sites where ground gas is an issue, as monitoring may need to be carried out for longer periods (e.g. 6-12months) to ensure adequate characterisation of the site. Therefore, sufficient time should be set aside in the development programme to enable the necessary reports and drawings to be prepared and allow a period of time for consultation with the Public Protection Service and for the Public Protection Service to consult with other organisations, such as the EA or HPA. For this reason, Applicants/Developers should allow a minimum period of 21 days from the date of document submission for completion of the consultation or approval. It should also be noted that remediation works may need to commence/complete in advance of the development and allowances should be made for this when determining timescales.

Where Applicants/Developers proceed from one stage to the next without first obtaining the approval of the LPA for submitted documentation, they do so at their own risk. If the information submitted proves to be inadequate, the Applicant/Developer will be responsible for re-submitting adequate documentation and undertaking any additional site investigation or remediation works subsequently shown to be necessary. This could have a major cost implication, especially if construction work has already commenced and has to be aborted to facilitate the additional investigative work. If the LPA, or Public Protection Service become aware that the Applicant/Developer has not submitted the necessary documentation to comply with the condition, enforcement action may be taken, potentially resulting a Stop Notice being served on the Applicant/Developer.

4.5 Access to Environmental Information

Information held by the Council is governed by the requirements of the Environmental Information Regulations (2004), Freedom of Information Act (2000) and Data Protection Act (1998) and can be accessed in one of two ways:

- **Environmental Search Service**: The Public Protection Service offers an Environmental Search Service, which can provide additional information to companies or individuals wishing to determine if a particular site or parcel of land is affected by contamination. There are several different types of search available. Details of search types and associated charges can be obtained by emailing contaminatedland@warrington.gov.uk and requesting information about the Environmental Search Service, or by contacting an officer directly;
- **Viewing of Planning Documents by Appointment**: The Public Protection Service holds a large amount of historic and current information about contaminated land within the Borough. In addition, the Council also holds copies of all contaminated land investigation and risk assessment reports submitted under the planning system. Companies or individuals can view information or reports at Council Offices by prior appointment. Intellectual property rights are required to be respected and duplicate copies of material subject to copyright laws will not be made or allowed. For further details or to make an appointment, contact contaminatedland@warrington.gov.uk.

The Town and Country Planning Act also requires that all information submitted in support of a planning application be placed on the Planning Register and be publicly available, unless certain restrictive circumstances apply. It should therefore be routinely assumed that all information submitted to the LPA will be available for public inspection via the website.

4.6 Technical Guidance for Consultants/Specialists

The complexity of contaminated land technical guidance, coupled with individual site variability, makes it difficult to produce comprehensive guidance applicable to every situation. However, when assessing the adequacy of a site investigation, a number of common problems frequently arise. These generally relate to areas where technical guidance may be complex or incomplete. In an attempt to minimise the occurrence of these problems, the Public Protection Service apply consistent criteria for certain technical aspects of a site investigation. This section is intended to highlight recurring problem areas and key points that are of particular importance.

4.6.1 Generic Assessment Criteria/Screening Vales

The Department for Environment, Food and Rural Affairs (Defra) formally withdrew the 1987 ICRCL trigger and action values in December 2002, following the implementation of the Contaminated Land Exposure Assessment Model (CLEA) and associated publication of the Soil Guideline Values (SGVs). In 2008, the CLEA UK model and the SGVs were withdrawn by Defra and a revised CLEA model known as CLEA 1.04 was launched. Several versions of the CLEA model subsequent to 1.04 have been introduced since 2008, with the current version being 1.06. This is available for download on the EA website. The Public Protection Service would expect all future site investigations and assessments to make no reference to the withdrawn standards.

GQRA and DQRA should now be carried out using assessment criteria derived via the new CLEA model (1.06). Where site-specific target levels are used they should be calculated based on suitable and reasonable assumptions as well as current best practice and associated briefing notes and guidance. Reference should also be made to statistical analysis of the resulting data from the intrusive investigation.

The CLR7 report *'Assessment of Risks to Human Health from Land Contamination: An Overview of the Development of Soil Guideline Values and Related Research'* was withdrawn in 2008. Consultants, or suitably qualified persons appointed by the Developer / Applicant should adopt a suitable statistical approach (when assessing site investigation data). The CIEH and CL:AIRE set out in the guidance document *'Guidance on Comparing Soil Contamination Data with a Critical Concentration'* an approach that is a useful starting point for statistically assessing data.

It is usually inappropriate to apply quantitative criteria developed outside the UK, to UK sites, as assumptions underlying the models used to derive these criteria often reflect different behaviour patterns, local soil types or other technical factors. Where other contaminated land quantitative criteria are used e.g. Dutch or USEPA, the reasoning behind not using current UK guidance should be given and their use should be fully justified and referenced within the report. This would be expected to include a discussion of the CSM and assumptions used to derive the generic criteria together with an assessment of the underpinning toxicological data.

Given the uncertainty regarding GACs, new generic screening values were published in 2009 by the CIEH and Land Quality Management Limited (LQM). These GACs were developed for a selection of end uses and when combined with the remaining Soil Guideline Values (SGVs), cover a wide range of potential contaminants. To this end, the CIEH/LQM GACs are now widely used in contaminated land risk assessments and are accepted by many local authority regulators. Further details regarding these GAC can be found in the CIEH/LQM guidance document *'Generic Assessment Criteria for Human Health Risk Assessment (Second Edition)'*.

4.6.2 Ground Gas Risk Assessment

If the development is situated within 250m of a ground gas generation source, or is suspected of having the potential to generate ground gas, potential risk should be assessed and, if required, appropriate gas protection measures should be incorporated into the development design.

Guidance for assessment of the risks associated with the presence of hazardous ground gases on or in the vicinity of development sites can be found in:

- CIRIA guidance C665 'Assessing Risks Posed by Hazardous Gas Ground Gases to Buildings';
- BRE guidance Report 414 'Protective Measures for Housing on Gas Contaminated Land';
- National House Building Council (NHBC) guidance on ‘Evaluation of Development Proposals on Sites Where Methane and Carbon Dioxide Are Present;
- British Standard guidance BS8485 'Code of Practice for the Characterisation and Remediation of Ground Gas in Affected Developments';
- Chartered Institute of Environmental Health (CIEH) guidance 'Local Authority Guide to Ground Gas'.

The guidance in CIRIA C665 sets out a phased, risk-based approach to ground gas assessment.

If the PRA identifies a potential source of ground gas that may affect the site, gas monitoring is required. Measurements should be taken from suitably installed and equipped monitoring boreholes and the details and locations of the boreholes should be supplied. The spacing and number of the monitoring wells required at a site depends on the generating potential of the gas source and the sensitivity of the end-use (housing being the most sensitive). The response zone of a monitoring installation should be designed to intersect the suspected sources of gas. Spike testing and data obtained from trial pit installations are not acceptable for gas risk assessment.

The number of monitoring visits required and the length of time for which monitoring should be carried out, depends on the gas generation potential of the gas source and sensitivity of the proposed end-use. For example, a site which is to be developed for residential properties with gardens, but is situated over a very low gas generation source (e.g. Made Ground greater than 1 metre thick) may require a minimum of 6 visits over 3 months, while residential with housing over a very high gas generation source (e.g. a modern landfill) may require 24 visits over 24 months. In order to obtain any worthwhile data to use in a risk assessment, at least two readings over the monitoring period should cover the 'worst case' scenario (i.e. low and falling atmospheric pressure, ideally below 1000 millibars) and different weather conditions, such as rainfall, frost and dry.

Monitoring should be undertaken in accordance with the CIRIA C665 guidance and where deeper Made Ground (greater than 1 metre deep), organic material or hydrocarbon spills are unexpectedly encountered, additional monitoring should be considered.

Once sufficient gas monitoring data has been obtained, a ground gas risk assessment should be carried out to determine if gas protection measures are required. C665 sets out two risk assessment methodologies:

- Modified Wilson and Card methodology (for use on all development types except low rise houses with gardens). The gas regime characteristic situation determines the number and type of protection measures required;
- NHBC Traffic Light System, proposed by Boyle and Witherington (for use on developments with conventional low-rise housing with gardens with block and beam floor and ventilated under floor void only). Gas results are initially compared to Typical Maximum Concentrations and then to Gas Screening Values if the Typical Maximum Concentrations are exceeded. The worst-case protection measures are adopted.

4.6.3 Cover Systems

The main function of an engineered cover system should be to provide a safe and permanent barrier between any ‘significant’ levels of buried contamination and residents/site users.

Any sub-soil or top-soil imported on to a proposed development site should be from a Greenfield source or certified remediated source. Soil of unknown origin or from a Brownfield site may still be accepted, but its use is actively discouraged by the Public Protection Service. Any proposed importation of material from a Brownfield source should be accompanied by substantial justification and will be subject to more stringent validation and screening prior to import.

Documentary evidence should always be sought when importing fill materials. Evidence verifying the source will assist in validation of the suitability of the material for use on-site. This information may inform the type of chemical testing carried out on the material and will, in-part, determine the frequency of testing to be implemented to ensure that it is suitable for use.

If the source of the material proposed for import is unknown, the Public Protection Service may refuse import, with the onus of responsibility being with the Applicant/Developer to prove suitability for use. Where site-won materials are to be re-used, the source/origin will be that of the subject, i.e. Greenfield, Brownfield or Remediated.

Chemical Analysis

Where possible, the geographical source/origin of material considered for importation should be known and confirmed by formal certification and/or reliable anecdotal evidence. Specific reference should be made to source origin, i.e. Greenfield, Brownfield or Remediated.

Chemical analysis should be provided for top-soils and sub-soils considered for importation, regardless of the proposed end-use, (i.e. soft-landscaping, garden areas) Chemical testing of proposed imported and site-won materials proposed for re-use should comprise a standard suite of contaminants including metals; metalloids; speciated TPHs; speciated PAHs; and an Asbestos screen.

Regarding Chromium analysis specifically, data should be provided for Total Chromium concentrations. This is due to the inherent difficulties encountered when analysing for the hexavalent form only and that current analytical methodologies favour a guideline value for Total Chromium rather than speciated results.

Chemical Standards

Top-soil and/or sub-soil imported onto site may be subject to chemical testing prior to import to ensure the material is chemically suitable for use. This is not mandatory and is recommended entirely for the benefit of the applicant to ensure the quality of the material purchased. However, chemical testing to prove suitability for use should then be carried out once the material has been imported to site, ie: in-situ.

When screening imported (or site-won) fill materials for chemical suitability, GAC used to determine threshold concentrations preferred by the Public Protection Service include:

- Existing Soil Guideline Values (SGVs);
- Atkins AtRisk^{SOIL} 2009 Values;
- CIEH/LQM 2009 Values;

Other generic screening values will be accepted by the Public Protection Service, providing the values are fully justified. In the absence of suitable GACs, Site Specific Assessment Criteria (SSACs) may need to be generated.

Top-soil or sub-soil imported to site should adhere to the appropriate organic content, pH value, nutrient content and Carbon: Nitrogen ratio as described in the British Standard Institution (2007) guidance document BS3882 *Specification for Top-soil and Requirements for Use guidance document*.

Physical Composition

The term 'imported fill material' refers to any soil, sand or aggregate-based material brought to site for use within the proposed development. This can include both top-soils and sub-soils and any intended end use, with special consideration given to materials destined for proposed garden areas and/or soft-landscaping. In terms of composition, the imported material should be suitable for the intended end use. Materials imported to site will fall into four broad categories:

1. **Natural top-soil**: Upper layer of an in-situ soil profile, usually darker in colour and more fertile than the layer below (sub-soil), and which is a product of natural chemical, physical, biological and environmental processes;

2. **Manufactured top-soil**: Also known as 'recycled top-soil'. This is material produced by combining mineral matter and organic matter (and, where appropriate, fertiliser and lime), and which provides the same function as top-soil;
3. **Sub-soils**: Soil layer extending between the top-soil and the little-weathered material below, or material that functions as sub-soil in a constructed soil in a landscaping project on to which top-soil can be spread. Sub-soil usually has a lower concentration of organic matter and available plant nutrients than top-soil;
4. **Other**: All other fill material types imported to site other than those listed above.

Top-soil or sub-soil imported to site should adhere to the appropriate texture, structure and electrical conductivity as described in the British Standard BS3882.

Regarding manufactured top-soil, the Public Protection Service strongly discourages the use of such material and will only accept material of this type being imported to site if extenuating circumstances can be justified. This is due to the fact that information pertaining to the origin and/or composition of the material is often unknown, unavailable or unreliable. Frequently the organic content of this fill type is formed from sewage sludge or other high-organic-content wastes and as such, the Council deems its use within sensitive end uses (such as garden areas and/or soft-landscaping) to be an unnecessary potential risk.

Sampling Ratios & Statistics

As stated previously/above, all fill materials intended for import to site, as well as some site-won materials proposed for re-use, are required to be subject to validation testing to ensure their chemical suitability for use. This is usually in the form of a series of chemical tests performed on a number of soil samples taken from the imported material intended for use on-site.

This validation should be performed at an appropriate frequency for the volume of material imported and must test for a suitable suite of chemical determinands. Details of suitable suites of chemical to test for are given above.

Required sampling frequencies are dictated by the source of the fill material intended for (re)use on-site:

1. Material of Greenfield origin: This is material sourced from a recognised Greenfield site (ie: land which has not previously been subject to development or industrial use) and supporting documentation is available to corroborate this fact;
2. Material of Brownfield, remediated or unknown origin: This is material sourced from either:

    - A Brownfield site (i.e. that which has been previously-developed or subject to industrial use);
    - A remediated site (i.e. that which has previously been a Brownfield site, but has been remediated to the satisfaction of the LPA);
    - An unknown site (i.e. no supporting information/certification is available to corroborate origin/quality/composition of the imported fill material).

Recommended sampling frequencies are also dictated by the proposed end use of the fill material intended for (re)use on-site:

- Material intended for garden areas: This is fill material which is to be used within areas of the proposed development described as 'gardens'. Typically, any area of private lawns, soft-landscaping or planting areas, where there is the potential to grow vegetables and/or for prolonged exposure of human health receptors to imported fill materials.
- Material intended for soft-landscaping: This is fill material which is to be used within areas of the proposed development described as soft-landscaping, common or public open spaces. Typically, any area of public lawns, soft-landscaping or planting areas, where there is no potential to grow

vegetables and the potential for prolonged exposure of human health receptors to imported fill materials is more limited.

- Material intended for other areas of the site: This is fill material which is to be used in or on any area of the proposed development site other than those listed above. This may include beneath building footprints, carriageways, footways or car-parking areas.

Recommended sampling frequencies (per cubic metre) attracted by the varying sources and/or intended end uses are presented in Table 4.3:

Intended End-Use:	SOURCE / ORIGIN OF FILL MATERIAL:			
	GREENFIELD	REMEDIATED	BROWNFIELD	UNKNOWN
GARDENS	1:250 m^3	1:100 m^3	1:50 m^3	1:50 m^3
SOFT-LANDSCAPING	1:250 m^3	1:150 m^3	1:150 m^3	1:150 m^3
OTHER	1:250 m^3	1:250 m^3	1:250 m^3	1:250 m^3

Table 4.3: Sampling frequencies recommended by the Public Protection Service for imported or site-won fill materials

In the interest of statistical confidence, a minimum of at three samples per soil type should be collected and samples identified as outliers will require further sampling. All statistical analysis and calculation should be carried out in accordance with CIEH/CL:AIRE *Guidance on Comparing Soil Contamination Data with a Critical Concentration* document.

Depth of Growth Mediums & Planting

Typically, the depth of sub-soil should be at least double the depth of top-soil installed within the cover system or capping layer, although topsoil depth shall not normally exceed 300 mm as per British Standard BS3882. Total minimum rooting depth for planting (that is, top-soil and sub-soil combined) within growth mediums, whether gardens, soft-landscaping or common areas are described in British Standard BS3882 and is summarised in Table 4.4:

Total Minimum Rooting Depth:	Vegetation Type:			
	GRASS	PLANTS	SHRUBS	TREES
	450 mm	450 mm	600 mm	900 mm

Table 4.4: Idealised total growth medium rooting depths for various vegetation types

Depth of Cover Systems & Capping Layers

Where used as a capping layer of cover system, fill materials should be installed at prescribed depths according to their soil type and the role they play within the cover system. As cover systems are almost always site-specific, the various depth of fill can vary greatly depending on how complex or engineered the cover system is to be, but there are a few minimum standards to be observed, which are described below.

Typical cover system design requires a capillary break layer at its base, which is then overlain by various depths/types of fill material. These individual layers working in unison form the cover system or capping layer.

The minimum acceptable total depth for fill materials (including the break layer) within private garden areas should be 600 mm. This figure is recommended and has been adopted for the following reasons:

1. Root systems for shrubs are typically up to 600 mm;
2. Excavations are unlikely to be deeper than 600 mm in typical gardening activities;

3. Bio-turbation (soil-mixing by biological organisms) is typically limited to the top 600 mm of the soil profile;
4. Excavations by children or pets are unlikely to exceed 600 mm.

The minimum acceptable total depth for fill materials (including the break layer) within areas of soft-landscaping, common areas or public open spaces is 450 mm. This relaxation of cover depth is designed to reflect the reduced risk afforded by diminished exposure of human health receptors to potentially contaminated soils within these public areas via direct contact (dermal, ingestion, inhalation).

On-site or Off-site Validation

Fill material imported onto site should be stored in a designated area, which is clearly identified on an appropriate scale plan. Stockpile management protocols consistent with best practice apply.

The Public Protection Service does not routinely accept off-site validation of fill material (whether this is top-soil, sub-soil or other substrate), as this often results in chemical testing of different material to that actually imported to site. It is therefore difficult to prove the exact chemical nature of the material eventually imported, as off-site validation tends to involve composite samples taken from a 'typical batch' of the material intended for import. As such, validation testing of imported fill materials should be carried out in-situ, after materials have been imported to site.

Documentary Evidence

- **Chemical analysis**: All raw laboratory data should be submitted with the analytical test certificate;
- **Statistical analysis of datasets**: Calculations in line with CIEH/CL:AIRE guidance should be provided;
- **Photographic evidence**: Photographs of installed remedial measures (of any type) are required. Photographic evidence should be representative and where necessary, include a scale/ruler. This is of particular importance when photographing cover depths to verify the agreed depth of cover has been installed;
- **Plans**: Showing pertinent information relating to remediation, such as stockpile locations, areas subject to remedial measures or areas of further investigation;
- **Import/export data**: Pertinent data relating to fill materials/wastes, including volumetric data (ie: how much was imported to site), source data (ie: where the material came from) and waste transfer data (where applicable).

Obtaining Representative Samples

All sampling strategies should be designed to provide data that is representative of the site conditions as a whole. Sampling should be undertaken in accordance with recognised sample collection methodology and guidance, with reference made to recommendations within the British Standard BS10175 guidance document. It is essential to derive a CSM using the information obtained from the PRA to target possible sources of contamination and also to ensure that an appropriate suite of analysis is performed. Justification for the chosen sampling regime and analysis suite should be clearly set out in the site investigation report.

A suitably accredited laboratory should be used to undertake analysis of samples. The site investigation should include a detailed plan showing the location of sampling points and accreditation details of the laboratory used, together with summary tables of results. A full set of results, including exploratory hole logs, should be submitted.

4.6.4 Japanese Knotweed

Neither the EA nor the Council are responsible for controlling Japanese knotweed, other than that growing on Council-owned land. Managing knotweed is the responsibility of the landowner of a site.

4 Contaminated Land

[redacted]

[redacted] Asbestos

There are three issues related to Asbestos that may require the applicant to contact the Public Protection Service:

1. Dealing with Asbestos as part of a contaminated land condition or in relation to the planning process;
2. Members of the public concerned about asbestos in their homes, in/on neighbours property or on current developments close by, and;
3. Members of the public working with, and/or being exposed to asbestos in their workplace.

Further Information:

Asbestos and Contaminated Land

If the presence of asbestos within made ground is suspected or within a building due for demolition then contact the Public Protection Service on Tel: 01925 442 653

Asbestos, Neighbours and Current Developments

If the issue is with members of the public having concerns with their house, neighbours or building sites dealing with asbestos sheeting or similar, then please contact Council Contact Centre on Tel: 01925 443 000

Asbestos at Work

If the issue is work related then please review the Health and Safety Executive (HSE) website at the following link for information and contact details: http://www.hse.gov.uk/asbestos/

4.7 References

1. Department of Environment, Food & Rural Affairs/Environment Agency, 2004, CLR Report No 11, Model Procedures for the Management of Land Contamination;
2. British Standards Institute, 2011, BS10175, Investigation of Potentially Contaminated Sites – Code of Practice;
3. Department of the Environment, 1994, CLR Report No 3, Documentary Research on Industrial Sites;
4. Department of the Environment, 1994, CLR Report No 2, Guidance on Preliminary Site Inspection of Contaminated Land;
5. Chartered Institute of Environmental Health (CIEH) / Contaminated Land: Applications in Real Environments (CL:AIRE), 2008, Guidance on Comparing Soil Contamination Data with a Critical Concentration;
6. CIRIA, C665, 2007, Assessing risks posed by hazardous ground gases to buildings.
7. Building Research Establishment 414 (2001) Protective Measures for Housing on Gas Contaminated Land;
8. National House Building Council (NHBC), Report Edition No. 4 (March 2007) Guidance on Evaluation of Development Proposals on Sites where Methane and Carbon Dioxide are present;
9. British Standards Institute BS8485 (2007) Code of practice for the characterisation and remediation of ground gas in affected development, Draft for Public Comment;
10. Chartered Institute of Environmental Health (2008) Local Authority Guide to Ground Gas;
11. British Standards Institute BS3882 (2007) Specification for Topsoil and Requirements for Use;
12. Chartered Institute of Environmental Health (CIEH) and Land Quality Management Limited (2009) Assessment Criteria for Human Health Risk Assessment (Second Edition).
13. Environment Agency (2010) Guiding Principles for Land Contamination.

4.8 Glossary

Borehole - A hole drilled into the ground in order to obtain samples

Brownfield Sites - A term generally used to describe previously developed land, which may or may not be contaminated

Conceptual model - A representation of the characteristics of the site in diagrammatic or written form that shows the possible relationships between contaminants, pathways and receptors.

Contaminant - A substance that is in, on or under the land and that has the potential to cause harm or to cause pollution of controlled waters.

Controlled waters - Defined by Water Resources Act 1991, Part III, section 104, which includes all groundwater, inland waters, estuaries and coastal water to three nautical miles from the shore.

Desk study - Interpretation of historical, archival and current information to establish where previous activities were located, where areas or zones that contain distinct and different types of contamination may be expected to occur, and to understand the environmental setting of the site in terms of pathways and receptors.

Detailed quantitative risk assessment - Risk assessment carried out using detailed site-specific information to estimate risk or to develop site-specific assessment criteria.

Generic assessment criteria - Criteria derived using generic assumptions about the characteristics and behaviour of sources, pathways and receptors. These assumptions will be protective in a range of defined conditions.

Generic quantitative risk assessment - Risk assessment carried out using generic assumptions to estimate risk or to develop generic assessment criteria.

Ground gas - A general term to include all gases (i.e. including VOCs or vapours) occurring and generated within the ground whether from made ground or natural deposits

Hazard - A property or situation that in particular circumstances could lead to harm or pollution.

Land affected by contamination - Land that might have contamination present which may, or may not; meet the statutory definition of contaminated land.

Made ground - Ground where there are deposits that have not been formed through natural geological processes. These may comprise a combination of natural deposits together with products and materials and waste produced by man.

Maintenance - Activities carried out to ensure that remediation performs as required over a specified design life.

MCERTS - The Monitoring Certification Scheme is a quality assurance scheme for providers of monitoring services, equipment and systems that is administered by the Environment Agency and accredited by UKAS.

Monitoring - A continuous or regular periodic check to determine the ongoing nature and performance of remediation, which includes measurements undertaken for compliance purposes and those undertaken to assess performance.

Pathway - A route or means by which a receptor could be, or is exposed to, or affected by a contaminant.

Pollutant linkage - The relationship between a contaminant, pathway and receptor.

Preliminary risk assessment - First tier of risk assessment that develops the initial conceptual model of the site and establishes whether or not there are any potentially unacceptable risks.

Receptor - In general terms, something that could be adversely affected by a contaminant, such as people, an ecological system, property or a water body.

Remediation - Action taken to prevent or minimise, or remedy or mitigate the effects of any identified unacceptable risks.

Remediation strategy - A plan that involves one or more remediation options to reduce or control the risks from all the relevant pollutant linkages associated with the site.

Response zone - The perforated section of a standpipe/borehole which allows gas in the unsaturated zone to enter a standpipe

Risk - A combination of the probability, or frequency of occurrence of a defined hazard and the magnitude of the consequences of the occurrence.

Risk assessment - The formal process of identifying, assessing and evaluating the health and environmental risks that may be associated with a hazard.

Sampling - Collection of a portion of material for experimentation such that the material taken is representative of the whole

Sensitive receptors - Receptors which are more likely to be affected by a hazard

Site reconnaissance - A walk-over survey of the site.

Site investigation - An intrusive investigation, which involves the collection and analysis of soil, surface water, groundwater, soil gas or other media as a means of informing the conceptual model and the risk assessment. This investigation may be undertaken in a single or a number of successive stages.

Site-specific assessment criteria/target values - Values for concentrations of contaminants that have been derived using detailed site-specific information on the characteristics and behaviour of contaminants, pathways and receptors and that correspond to relevant criteria in relation to harm or pollution for deciding whether there is an unacceptable risk.

Verification - The process of demonstrating that the risk has been reduced to meet remediation criteria and objectives based on a quantitative assessment of remediation performance.

Verification report - Provides a complete record of all remediation activities on site and the data collected as identified in the verification plan to support compliance with agreed remediation objectives and criteria.

4 Contaminated Land

5 Light Pollution

5.1 Introduction

The problems and issues associated with the provision of outdoor lighting are becoming more widely recognised. Obtrusive lighting may cause an environmental and intrusive visual nuisance arising predominantly from glare and light spillage. Light pollution in the countryside can lead to the illusion of a suburban environment with the sense of distinctiveness associated with the countryside being lost.

5.1.1 What is Light Pollution?

Light pollution is the term used to describe unwanted light from artificial light sources. Light pollution can occur as:

- Sky Glow - the orange glow visible around urban areas resulting from the scattering of artificial light by dust particles and water droplets in the sky;
- Glare - the uncomfortable brightness of a light source when viewed against a dark sky;
- Light Trespass - light spillage beyond the boundary of the property on which a light is located.

Excessive artificial lighting

There is growing recognition of the potential problems arising from artificial light within the environment. Problems can arise from:

- Illuminated shop windows and advertising signs left on overnight;
- Badly designed lighting in car parks and shopping centres;
- Domestic security lighting which is poorly angled thereby flooding the neighbourhood in light and accentuating the darkness of the surrounding areas;
- Badly floodlit sports facilities, such as golf driving ranges, or motorway service areas which bathe rural areas in brightness;
- New housing estates or shopping complexes with discordant lighting, often much more intrusive than neighbouring lighting; and
- Excessive lighting of churches and other architecturally interesting buildings.

By establishing the objectives of any lighting scheme and agreeing guidelines a compromise can be met to reduce the impact of any scheme and potentially save energy and expense to the Applicant/Developer.

5.2 Light & Planning

5.2.1 Will a Lighting Scheme Require Planning Permission?

Maintenance, improvement or other alterations to any building works, which affect only the interior of the building or do not materially affect the external appearance of the building, do not require planning permission (unless the building is listed, in which case listed building consent may be required for both internal and external works). Most work involving lighting particularly of the householder 'DIY' type, will fall within this category e.g. home security lights. However, the installation of a lighting scheme of such nature and scale that it would represent an engineering operation and typically be undertaken by specialist lighting engineers could be deemed "development" and as such, is likely to require planning permission.

Large-scale lighting installations such as the floodlighting of a football stadium or public tennis courts are clearly a form of development, which comes within this statutory definition and would require planning permission. Listed building consent is required for lighting schemes if it is deemed that the character of the building would be materially affected by the lighting. Advice should be sought from the LPA prior to installation.

The Council would advise prospective Developers/Applicants to check with the LPA before installing any lighting scheme. Developers/Applicants are encouraged to submit details of lighting schemes (nature and extent), including light scatter diagrams, as part of the planning application in order to demonstrate that the proposed scheme is appropriate in terms of its purpose and setting. In so doing, the LPA aims to minimise potential pollution from glare and spillage to neighbouring properties, roads and rural areas. It may be necessary to condition a planning approval to allow the LPA to monitor the development and enforce the condition if necessary, this is discussed in Section 5.3.3.

5.2.2 Determining of Planning Applications

The Council has identified a number of factors that will be taken into consideration when determining of planning applications for proposals that include lighting. These are:

1. An Assessment of the Need for Lighting

The LPA will request the applicant assess the need for the lighting scheme proposed.

2. The Location of the Proposal in Relation to Neighbouring Uses

The LPA has identified the following environmental zones against which impacts of external artificial lighting will be judged:

Zone	Surrounding	Lighting Environment	Examples
E1	Natural	Intrinsically dark	National Parks, Areas of Outstanding Natural Beauty etc.
E2	Rural	Low district brightness	Village or relatively dark outer suburban locations
E3	Suburban	Medium district brightness	Small town centres or suburban locations
E4	Urban	High district brightness	Town/city centres with high levels of night-time activity

The Institution of Lighting Professionals has provided guidance on acceptable levels of illumination for specific environmental zones, which relate to the areas identified above.

The LPA recommends that any applications for lighting schemes to adhere to the relevant guidance for the appropriate environmental zone in the *Institute of Lighting Professionals: Guidance Notes for the Reduction of Obtrusive Light GN01:2011*

3. The Nature of the Use of the Lighting Proposed

For all lighting proposals, the Applicant/Developer should identify the purpose and use of the lights, the potential users of the lighting scheme (e.g. for recreation facilities) and the hours the lights will be in operation (summer-time and winter-time). The hours of operation will be expected to be kept to a working minimum and Applicants/Developer should show this in their application. Keeping the use of the lighting to a minimum will reduce the impact the lighting may have on the environment.

4. The Design of the Lighting Proposed

To achieve the necessary minimisation of obtrusive light the Applicant/Developer should adhere to the following general principles taken from the Institute of Lighting Professionals, Guidance Notes for the Reduction of Obtrusive Light, GN01: 2011.

1. Lighting is directed downwards wherever possible to illuminate its target. If there is no alternative to up lighting, then the use of shields and baffles will help reduce spill light to a minimum. Up lighting is a particularly bad form of obtrusive light and contributes to sky glow;
2. Lighting is designed so as to minimise the spread of light near to, or above the horizontal. Again any light that shines above the horizontal line of the light adds to the sky glow effect;
3. Lighting should be designed to the correct standard for the task and should not over light. 'Over' lighting is a cause of obtrusive light and also represents a waste of money and energy;
4. The main beam angle of all lights proposed directed towards any potential observer is kept below 70 degrees. It should be noted that the higher the mounting height, the lower the main beam angle could be. This will help reduce the effect of glare and light spill on neighbouring dwellings, passing motorists, pedestrians, etc.;
5. Lighting should be directed to minimise and preferably avoid light spillage onto neighbouring properties;
6. Wherever possible use floodlights with asymmetric beams that permit the front glazing to be kept at or near parallel to the surface being lit;
7. The lights used should be the most efficient taking into account cost, energy use, colour rendering and the purpose of the lighting scheme required. All lighting schemes should meet British Standards.

5.2.3 Planning Conditions

Where the LPA grants planning consent for a development proposal it may impose conditions controlling the lighting scheme provided. These may include:

- Limiting the time of use of the lighting;
- Limiting the light levels to a designed uniformity;
- Limiting the use of lighting schemes to identified uses or users;
- Specifying lamps, luminaires and columns;
- Specifying the need for full horizontal cut-off;
- The design, height and position/angle of the lighting;
- The retention of screening vegetation;
- The use of planting and bunding to contain lighting effects;
- The future maintenance of the lighting schemes and post-installation checks in accordance with the original design and planning approval; and
- In exceptional circumstances, the granting of temporary planning permission to enable a review of lighting impacts after installation.

These conditions will be applied as necessary by the LPA to help reduce obtrusive light from new proposals, particularly glare and spillage, from areas of wildlife importance, open countryside and residential amenity.

These conditions may be subject to change dependant on any updates in guidance.

5.3 What Information is Required?

Any proposal for artificial lighting should be accompanied by that information normally required for any other planning proposal and additionally the information set out below.

- A statement setting out why a lighting scheme is required, the proposed users, and the frequency and length of use in terms of hours of illumination;
- A site survey showing the area to be lit relative to the surrounding area, the existing landscape features together with proposed landscaping features to mitigate the impacts of the proposed lighting;
- A technical report prepared by a qualified Lighting Engineer or lighting company setting out the type of lights, performance, height and spacing of lighting columns. The light levels to be achieved over the intended area, at the site boundaries and, for large schemes, 50m outside of the boundary of the site should be superimposed on a map of the site and its surrounding area.

Any proposal for the display of illuminated advertisements should be accompanied by that information normally required for any other planning proposal and additionally the information set out below.

- Details of the proposed location, positioning and dimensions of the sign face;
- The sign face maximum luminance in candelas per square metres;
- The number, size and type of light sources and details of the sign face materials;
- The type of illumination – internal or external; static or intermittent;
- Details of the make and catalogue number of any luminaires/floodlights;
- Size, type and number of lamps fitted within any luminaire or floodlight;
- The mounting height of the luminaires/floodlights specified;
- The location and orientation of the luminaires/floodlights.

Provision of this information may require professional advice and potential advisors can be found in Section 5.8. For significant lighting schemes professional advice from a lighting manufacturer or from a qualified lighting engineer is recommended.

5.3.1 Requirements for Specific Lighting Schemes

A list of land uses/developments are contained below with the requirements set out for each one. These extracts have been taken from the Department of the Environment and the Countryside Commission publication, *Lighting in the Countryside: Towards Good Practice, 1997*.

A. Advertisements

- Acceptable lighting levels for illuminated signs are given in *'Brightness of Illuminated Advertisements'* – Technical Report Number 5 produced by the Institute of lighting Engineers (now Institute of Lighting Professionals). All advertisement applications should conform to the recommendations set out in this report;
- Signs should not positioned where they may affect the clarity of traffic signs or disturb those living close by;
- Position promotional lighting/signs so that they are not visible from the open rural areas i.e. concentrate at public.

N.B: Planning permission is not required for certain categories of illuminated advertisements displayed on business premises. The Town and Country Planning (Control of Advertisement) Regulations 1992 states luminance values and criteria for such proposals.

B. Security Lighting

- Passive infrared detectors should control lighting. Avoid sensors that can be tripped by road or footway users. Lamps of higher intensity create too much light, more glare and darker shadows. For all-night lighting at low brightness use a compact fluorescent porch light of 9W (600 lumen);
- Lighting should be directed downwards to illuminate its target and mounted below the property boundary height so as to reduce light spill;
- Develop an integrated approach to security lighting, balancing levels of light with other lighting in and around the site to avoid glare and light spill as well as dark spots.

C. Commercial & Industrial Developments

- Avoid use of lights simply to create a 'presence' at night;
- Concentrate lights where they are needed and establish a clear hierarchy, with minimum lighting around the outer, perimeter of the complex.

D. Decorative Building Lighting

- Keep lighting understated and aim to enhance rather than swamp architectural character;
- Ensure light is directed only at the structure, resiting lights and using baffles and shielding where possible;

- Minimise up-lighting where it distorts architectural detailing;
- Consider timing of lighting to maximise the visual beauty of the building to the public at night-time but not to floodlight the building at dusk or nightfall;
- Consider the choice of surface materials being illuminated, the reflectance value may be high causing reflected light to generate excessive sky glow.

E. Agricultural/Horticultural Uses

- Mount lights below the roof height of buildings and direct light downwards, to where it is needed reducing light spillage;
- Avoid use of sensors that can be tripped by animals;
- As far as possible, position lights so that they are shielded by buildings and are not visible from the surrounding countryside;
- The potential impact of light from glasshouses will be considered as part of the planning application.

F. Lighting railway stations & Road/Rail Interchanges

- Design the lights for the station as a whole, balancing the need for lighting in different areas and considering the impact of light in views from the surrounding countryside;
- Concentrate on lighting to enhance the architectural character of the station building rather than on creating an 'urban' level of light on the platform and in the station forecourt;
- Direct car park and security floodlights downwards and to where the light is required.

G. Mineral Extraction

- Mount lights below the roof height of buildings, and perimeter fencing, and direct light downwards, to where it is required;
- Position lights so that they are shielded by buildings or permanent plant and are not visible from the surrounding rural areas;
- Avoid lights mounted on the side of the buildings that shine directly out, dazzling users of the facility.

H. Petrol Filling Stations

- Canopy lights should be positioned to avoid light spill from the sides of the canopy;
- Avoid the use of dish diffusers, which cause additional glare.
- Reduce lighting or avoid it during daylight hours;
- Integrate design for promotional signage with that of the canopy.
- Avoid lighting internal fascia around canopy;
- Design and position signs so that they are visible only from the carriageway and not from the surrounding landscape.

I. Car Parks

- Direct lighting downwards and design equipment to control levels of light spill and glare;
- Site lighting equipment carefully, making use of the backdrop provided by any existing vegetation and introducing new planting within the car park to help integrate the lighting structures and minimise the visual impact of both equipment and lighting;
- Use new hedgerows or tree planting to help minimise the impact of car park lights around the car park boundaries;
- All vegetation needs to be maintained and trimmed once it has been established otherwise it will block out the light.

All of the above lighting schemes should be balanced with securing safe and efficient operation of the proposed facility especially where external guidance expresses the need for defined illumination levels for Health & Safety reasons. Lighting installations which require higher illumination levels for Health and Safety reasons can still be designed following the spirit of the guidance from the Institute of Lighting Professionals.

5.4 Technical Guidance for Consultants / Specialists

For a list of guidance documents when considering lighting schemes please refer to Section 5.9. Different development proposals will warrant more specific guidance. It is the policy of the LPA that this more specific guidance is complied with as relevant.

5.4.1 Crime Prevention and Security Safety

It is assumed that a generous use of artificial lighting, whether street lighting or domestic security lighting, will reduce the risk of crime. However, studies have shown that whilst lighting can reduce the fear of crime, bright, poorly positioned, misdirected lights and security lighting can assist would-be criminals finding easy access points and can create deeply shadowed areas for concealment.

Guidance suggests *"Those installing security lighting need to strike a balance between their desire to increase the security of their properties and the possible effect that unnecessarily obtrusive and glaring light, due to badly installed or designed lighting fixtures, may have on neighbours. Care should be taken to ensure that the intensity and focus of security lighting respects the amenity of others."*

5.4.2 Floodlighting for Sports Pitches and Courts

Regarding the placement of floodlighting for sports pitches and courts in Warrington, careful consideration will need to be given to any proposals for the provision of floodlit sports facilities in areas of special landscape value and also where they immediately adjoin housing.

New sports facilities are almost always accompanied by artificial lighting schemes. Whilst recognising the advantages that lighting can bring in making more effective use of recreational facilities, the Council is also conscious that such proposals can have an adverse environmental impact in terms of obtrusive light.

The ever increasing interest in sport has prompted many sports centres and schools to install floodlighting to enable extra activities to take place after dark. The inclusion of floodlights to upgrade sports facilities enables a pitch or court to be used during the winter evenings and provides an opportunity for the community to utilise the facilities and in doing so, will be contributing financially towards the maintenance costs.

Design of Floodlighting

It is recommended that Applicants/Developers should commission a professionally produced design, including light scatter diagrams that will accurately predict the performance of the scheme, both inside and outside the pitch area, before any equipment is procured. This will avoid expensive mistakes and also provide the LPA with the necessary details needed when considering the planning application.

For further technical advice regarding sports floodlighting, guidance can be obtained from the Sports Council and also the Chartered Institute of Building Services Engineers (CIBSE).

Most sporting facilities require lighting of a uniform level over the whole playing area. This is normally best provided by downward facing lights mounted on columns. The Institution of Lighting Professionals recommends that the most effective way of achieving this and preventing light spillage into surrounding areas is to use floodlights with an asymmetric beam that, while producing the main beam at around 60-70 degrees, permits the front glass to be kept horizontal. The upper limits of the beam will also need to be specified depending on circumstances, but should normally not exceed 70 degrees downward from the vertical.

Different sporting activities require different light levels on the playing surface. Sports such as hockey, with a fast moving small ball, require a much higher level of illumination than, for example, netball. It is usually the case that the higher level at which a sport is played, for example County or National standard, the higher the level of illumination required. Training or more informal use may be undertaken with a lower level of illumination. For guidance on the relevant illuminance for particular sports see the Sports Council's Fact file Two, *Floodlighting for Sport*.

Some sports facilities such as golf driving ranges present particular difficulties for floodlighting. Most sites tend to be in rural areas and have floodlights aimed either horizontally or slightly above the horizontal plane to enable players to follow the flight of the ball. These lights, which are often of considerable intensity and with a wide beam, can cause inconvenience to neighbouring properties and can be a safety hazard; particularly where dazzle affects highway users. Golf driving range lights are probably one of the most polluting forms of floodlighting in that they invariably illuminate a much larger area than is required. The only circumstance where a horizontal beam of this nature may be permitted is where the natural landform or a permanent natural or manmade landscape feature can effectively contain/attenuate the light.

Careful consideration needs to be given to the positioning and height of lighting columns if an even light distribution over the playing surface is to be achieved, whilst maintaining light spillage into adjacent property to a suitable level. Floodlighting columns may vary in height from around 5m - 25m depending upon the type of illumination required and the area to be lit. The higher the lighting columns, the easier it is to ensure that the beam is directed downwards as indicated above and to minimise light spillage to surrounding areas. A judgement in all cases will need to be made on the visual impact of the lighting columns during daylight hours as well as the impact of the floodlighting system when in use.

Floodlighting systems can utilise a number of different light sources each with its own particular characteristics in terms of colour rendering, operating costs, and the amount of glare produced. The type of light source will need to be carefully matched with the level of illumination required and the height and positioning of columns, the visual impact of which will be a material planning consideration. It is also essential that the fittings are sufficiently robust to ensure that lamps carefully aimed minimise light spillage outside the floodlit site are not knocked out of alignment by high winds or heavy snowfall.

In coming to a decision on the merits of a particular proposal, the Council will take into account the use of the facility and the likely benefits to the general public. By definition, floodlighting allows sports facilities to be used for longer hours and throughout the winter. Floodlights must be operational for long hours to justify their initial capital cost and provide for the needs of the community. The English Sports Council recommends a curfew time of 22:00hrs for floodlighting. Consideration will be given to the relationship between the use of the facility and the interests of conservation, amenity and safety. Where the impact of a proposal is considered to be unacceptable or cannot be mitigated through ameliorative measures, the protection of those recognised interests will prevail.

5.4.3 Advertisements

Paragraph 2 of Schedule 3, Part II of the Town and Country Planning (Control of Advertisement Regulations 2007) states that *"the permitted levels of luminance for advertisements where the illuminated area is not more than 10 square metres, should be 600 candela per square metre and where the illuminated area is more than 10 square metres, 300 candela per square metre".*

5.5 Excessive Lighting

Effective illumination should be well directed and almost invisible from a distance. The lighting scheme should not exceed that which is required for the satisfactory undertaking of the task involved.

5.5.1 Proper Design and Planning

It is possible to reduce many of the negative effects of lighting through proper design and planning. This can be achieved by using lighting only where and when necessary; using an appropriate strength of light; and by adjusting light fittings to direct the light to where it is required. Luminance should be

appropriate to the surroundings and character of the area as a whole. 'Over lighting' should be avoided and shields, reflectors and baffles used to help reduce light spill to a minimum. Use specifically designed equipment that once installed, minimises the spread of light above the horizontal should also be considered.

5.5.2 Direction of Light

Light should be directed downwards wherever possible to illuminate its target and not upwards. Many floodlit buildings are lit from the ground with the light beams pointing into the sky. This often leads to columns of stray light pointing up into the sky creating vast amounts of light pollution and wasting energy. Consideration should be given to providing lighting that does not glare on approach and which places light onto the ground and not into the sky where it is wasted. In other cases, simply lowering the angle of the beam will stop light from overshooting the building into the sky. To ensure glare is kept to a minimum, the main beam of all lights directed towards any potential observer should be kept below 70°. It should be noted that the higher the mounting height, for the light source the lower the main beam angle can be. In places with low ambient light, glare can be very obtrusive and extra care should be taken in positioning and aiming light sources. Wherever possible, floodlights with asymmetric beams that permit the front glazing should be kept at or near parallel to the surface being lit.

5.5.3 Amount of Light

Rural lighting should be kept to a minimum necessary for safety. Highway authorities should be encouraged to apply this principle when building new roads or bypasses in the open countryside or upgrading existing installations with the use of low energy, light efficient fittings. Consideration should be given to taken where and when lights are activated.

5.5.4 Sensor Switches

For domestic and small-scale security lighting there are two options: (1) The use of 'Passive Infra-Red Sensors' (PIR); (2) All-night lighting at a level of low brightness. If correctly aligned and installed, a PIR Sensor that switches on lighting when an intruder is detected, often acts as a greater deterrent than permanently floodlit areas, which allow the potential intruder to look for weaknesses in security (e.g. open windows).

5.5.5 Types of Lamps

Low pressure sodium (LPS) street lamps which scatter their orange light all around, including skywards, are a common sight along many streets and in residential areas. However an increasingly popular alternative is the full cut-off, high pressure sodium (HPS) lamp. Although these are more expensive to install, full cut-off lamps prevent any light from being emitted above the horizontal and they create a bright pinkish white light, which is carefully directed to avoid light trespass. In a recent survey, 85% of drivers stated that they prefer the light from HPS lamps and for the same reasons HPS lamps are the preference for lighting sports pitches.

5.5.6 Wasted Energy

It is recommended that lights are switched off when not required for safety or security. Large quantities of energy are consumed and vast amounts of greenhouse gases are produced due to the wastefulness of all night shop advertising and display lighting, building illumination, upward floodlighting and permanent domestic and industrial security lights.

5.6 Advisory Organisations

- The Institute of Lighting Professionals
- British Standards Institution
- Dept of Environment, Transport and Regions
- DoE & DoT Publication Sales Unit

- The Chartered Institute of Building Services Engineers (Lighting Division) CIBSE
- Council for the Protection of Rural England (CPRE)
- British Astronomical Association: Campaign for Dark Skies (CfDS)
- Lighting Industry Federation
- International Commission on Illumination (CIE)
- English Sports Council

5.7 References

1. *Institute of Lighting Professionals: Guidance Notes for the Reduction of Obtrusive Light,* GN01:2011 (2011)
2. *Brightness of Illuminated Advertisements* – Technical Report TR5, Institute of lighting Engineers (now Institute of Lighting Professionals) (1991)
3. *Sports Lighting,* CIBSE Lighting Guide LG4 (London: Chartered Institution of Building Services Engineers) (1990)

5.8 Glossary

Asymmetrical Beam - Floodlights giving a fan shaped lighting pattern – available in wide, medium and narrow beams.

Beam Angle - The angle formed by the centre of the beam of light from a lamp relative to the vertical. When light is emitted from a lamp it forms a cone from the light source. The shape of this cone will depend on the reflector design in the lamp.

Candela - The unit of luminous intensity of a light source in a given direction.

Front Glazing - The front face of the lighting unit through which the light passes.

Glare - The discomfort or impairment of vision, which is experienced when part of the visual field is excessively bright in relation to the general surroundings. Direct glare normally occurs when the viewer can see the light source. Glare can cause discomfort or disability to see detail.

Illumination - The process of lighting an object or surface.

Light Trespass - Any light which illuminates beyond that which needs to be lit, particularly into residential areas or properties, which is perceived to be a nuisance.

Lumen - The unit of luminous flux (light) emitted by a light source or falling on a surface.

Luminance - A term which expresses the intensity of the light emitted in a given direction by unit area of a luminous or reflecting surface. It is the physical equivalent of what is subjectively called brightness. The unit most commonly used is the candela per square metre.

Luminaire - Formerly known as a lighting fitting. The apparatus which controls the distribution of flux from a lamp or lamps, and which includes all the components necessary for fixing and protecting the lamps and for connecting them to the local supply circuit. Floodlights and some other luminaires retain their individual names.

Luminous Flux - The light emitted by a source or received by surface. The unit is the lumen (lm).

Luminous Intensity - The power of a source or illuminate surface to emit light in a given direction. The unit is the candela (cd)

Lux - A measurement of illumination. One lux equals one lumen per square metre.

Main Beam Angle/Horizontal Cut-Off - A term applied to a luminaire. The angle measured from the downward vertical upwards to the first line of sight at which the lamp(s) or surface of high brightness is no longer visible. This angle is usually measured from the downward vertical or, for a floodlight, from the beam axis. Horizontal cut-off refers to the limiting of light above an imaginary line at horizontals with the luminaire.

Mounting Height - The vertical distance between the luminaire and the ground or floor.

Obtrusive Light - Any light, which illuminates areas beyond that, which needs to be lit can be considered to be a form of light pollution. The extent to which it is perceived as being a nuisance will often depend on the background light from other sources and the intensity of the light.

Statutory Nuisance - An obtrusive light which is considered to have an adverse impact on surrounding land – as determined by the Council. The Council may serve an abatement notice requiring the nuisance to be stopped – which may result in the operator being unable to use any such light or restrict hours where it can be used.

Sky Glow - A phenomenon where light – usually from a major light source such as an urban area or industrial/recreational floodlight installation is seen, often from many miles distance, as a glow in the sky. Some of the light is reflected from the illuminated surfaces although most is emitted directly skyward

from poorly designed lighting systems. Sky glow resulting from poorly designed systems is particularly noticeable in dark landscapes where there are few other light sources. Most rural areas and in particular the Area of Best Landscape would fall into this category.

6 Noise

6.1 Introduction

Noise is defined as unwanted sound and is an unavoidable part of everyday life. It is often a source of stress and irritation for many individuals, but noise pollution may also have a significant impact on health and well-being.

6.1.1 What is Noise Pollution?

Noise pollution can occur as an intrusive or offensive sound. An intrusive sound may be noticeably louder than, or significantly different to, background noise and is considered likely to disturb or interfere with individuals who are able to hear it. An offensive sound can be dependent on the times of day or duration of the noise.

Typically any developments involving residential dwellings are the most noise-sensitive, whilst industrial developments such as general industry are one of the least noise-sensitive. However, industrial uses are amongst the most likely to cause a noise impact off-site. This is discussed in more detail in Section 6.2 of this document. Developments which are particularly noise-sensitive may require noise control or protection measures to mitigate against the effects of noise from outside sources, which include the effects of noise from road or rail, industry or entertainment premises.

6.2 Noise & Planning

Noise is a material planning consideration for the following developments:

- A new potentially noisy development on a proposal site, which may adversely impact upon existing land uses surrounding the site;
- A new noise sensitive development on a proposal site which, may be adversely affected by existing noise sources in the area of the proposal.

Noise pollution could arise as a result of the land use itself (e.g. a factory or leisure centre) or as a result of ancillary activities associated with that land use (e.g. transport movements, loading/unloading, etc.).

6.2.1 Planning Use Classes

The Town and Country Planning Order 1987 puts uses of land and buildings into various categories known as 'use classes'. Sufficient knowledge of where development proposals fit into the use class system may provide an indication of the key considerations with respect to noise.

It is important to note that noise impact from transport networks can only be dealt with at the planning stage, as current legislation prevents action being taken either to increase insulation at affected properties or to take action against road users for noise. As such, on a legislative basis, noise which is likely to affect development from traffic must be addressed at the planning stage if it is to be addressed at all.

Potentially noisy development may cover a large range of different activities and planning use classes. Typically the following use classes would be considered to have a greater impact on noise sensitive land uses at or around the proposal site:

- A3/A4/A5 Retail Food and Drink activities
- B2/B8 General Industry and Warehouse activities
- D1/D2 Non Residential Institutions and Assembly and Leisure activities

Sui Generis uses are inherently more varied therefore specific consideration of any proposal within this category is required to ensure that any noise impacts are minimised.

An individual noise impact review will be carried out by the Public Protection Service when determining an application to assess the suitability of a proposed development and end use. The applicant/developer may also carry out a similar review when preparing a development proposal to identify potential noise impacts and to ascertain whether any protection or mitigation measures are required to counteract the impacts of noise.

The determination of a noise review may be sufficient for the Public Protection Service to consider recommending refusal of a planning application, if the proposed works are deemed to be incompatible with existing uses. However, pre-application discussions and liaison with the LPA during the application process may help to identify suitable noise protection or mitigation measures, which may result in re-designs/revisions of development proposals rendering an application more suited to the proposal site.

Due to the complex nature of noise and noise control engineering, it may be necessary to engage an acoustic consultant to address the requirements of any noise conditions attached to the consent. The acoustic consultant may need to carry out noise surveys and recommend appropriate noise mitigation measures either in order to respond to pre-determination requests from the LPA or in support of applications to discharge conditions; noise conditions are discussed in more detail in Section 6.2.3.

It may be necessary for the Applicant/Developer to obtain the services of a suitably qualified acoustic engineer to assess the existing noise levels in the vicinity of the proposed development and to calculate/predict potential noise levels following the development, if planning permission was granted. Determining the difference between the calculated noise levels and the existing noise levels should inform the Applicant/Developer whether any acoustic mitigation measures or other controls are necessary to allow development to progress without undue impacts on amenity in the local environment/area.

6.2.2 Determining Planning Applications

Consideration of noise will depend upon the development proposal. If a particular development is for a noise-sensitive end use then consideration of the locality of the proposal is imperative. The LPA will assess/review the local transport networks as well as local businesses and commercial developments. The review will also consider the operational times of local businesses as well as any noise that they may emit. Transport noise sources may also affect recommendations made by the LPA, especially if the development proposal is near to a busy road or major railway line.

Noise conditions may include recommendations for upgraded glazing, which can be a vital means of protecting future occupiers from transport noise or industrial noise sources. However, upgraded glazing may only protect or mitigate against noise if windows are kept shut. As such, some developments may also need to provide acoustic trickle vents and/or acoustically-treated forced ventilation, to help reduce the need to open windows in the first place.

Consideration for new businesses will typically involve a review of the noise likely to be emitted from the business. This can include plant or equipment associated with that business and its operation, but may also consider transport noise from deliveries or dispatched merchandise as well as possible increased traffic flows from visitors or staff arriving or leaving the site. Certain types of business may also be expected to have similar patterns of operation; for example, public houses and hot food takeaways tend to concentrate on afternoon and evening trade, whereas warehousing is likely to include overnight operation.

All development proposals should consider the ambient noise levels already present in a given area. The LPA is unlikely to grant planning permission to a development that will massively increase existing noise levels in an area, as this may significantly change the character of the local environment. For developments that are likely to have a significant noise impact, then consideration of appropriate acoustic mitigation measures will be necessary to reduce the impact from the development site to an acceptable level.

The Public Protection Service may make recommendations for basic mitigation measures to be adopted on smaller scale developments, which will attain the correct acoustic standards within the development. These recommendations will be made in discussion with the Applicant/Developer where possible.

Noise emitted by new plant and equipment should not exceed the existing background noise level by more than -10dB(A). Once the background noise level has been established and specific plant or equipment selected, acoustic calculations can be made to determine whether the plant or equipment will meet requirements including the effect of separation distance (i.e. the further away from a noise source, the quieter the noise will become). Quieter equipment is also usually available, which may assist in achieving the required/desired noise levels.

In some circumstances, no matter what equipment is selected, it may not be feasible to achieve the desired acoustic levels, meaning additional acoustic shielding may be required or alternatively, the relocation of equipment or plant to achieve the required/desired levels.

In rural areas the background noise level may be significantly quieter than that found in urban/built-up areas. It can be technically much more difficult to achieve target noise levels in these areas. A flexible approach will be considered where it is clear that the Applicant/Developer has tried all reasonable methods to reduce noise to an acceptable level.

Specific problems may arise for residential developments near to town centre locations or entertainments premises. Additional acoustic requirements above and beyond the usual recommendations of BS8233 may be considered necessary for such locations. These noise sources can be particularly bass-heavy, meaning the resulting noise has the ability to bypass some of the normal acoustic mitigation measures. Up-rated acoustic mitigation measures can be recommended in these circumstances or alternatively, Noise Rating (NR) curves may be used to specify noise limits at specific locations or premises.

The recommended design criteria for these dwellings are as follows:

- Noise rating curve NR25 in bedrooms (11pm-7am)
- Noise rating curve NR35 in all habitable rooms (7am–11pm)
- (Noise rating curves should be measured as a 15 minute linear Leq at the octave band centre frequencies).

6.2.3 Planning Conditions

Noise conditions may require standard provisions such as specialist plant and equipment to achieve levels below the background noise level. Alternatively, noise conditions may require direct measures to be carried out, such as specialist glazing specifications or acoustic ventilation systems. Noise conditions may also relate to operating hours, opening hours or delivery hours where these are considered to be a key element for controlling noise levels.

Noise conditions may require an assessment of noise and the submission of a scheme of works to achieve target or previously agreed noise levels.

Where complex or a combination of issues is likely within a development proposal, it is possible that the LPA may require a 'Noise Management Scheme' to be submitted. This would require the Applicant/Developer to consider the range of issues presented by the development and identify suitable and appropriate noise mitigation measures to be implemented. These schemes generally require proactive re-assessment on a regular basis or when complaints arise.

Any application for the discharge of a condition must be supported by all information requested in the condition. If any element of the condition has not been addressed either in part or fully, then it is likely that the condition discharge application will be recommended for refusal.

6.2.4 Noise During Construction/Demolition Works

Noise from construction or demolition works can be intrusive or disruptive to local businesses and/or noise sensitive land uses. For this reason construction or demolition activities should be restricted to daytime periods and have finite start and finish times. It is usually recommended that all noisy works (i.e. those that are audible beyond the site boundary), are restricted before 08:00 hrs and no later than

18:00 hrs on Monday to Friday to minimise disruption. Noisy activities occurring on Saturday should be restricted to 08:30 hrs to 13:30 hrs and no noisy works should take place on Sundays or Public or Bank Holidays. These restrictions apply to anyone working on site or deliveries to the site.

By utilising set working hours for activities on site as well as deliveries to the site, respite is provided for local residents and businesses/workers near to the development. Noise and disruption to local residents will occur during development works, so it is important to remember that local residents may not necessarily be in favour of the development or all aspects of it. By keeping an open dialogue and attempting to placate any complaints or grievances, the development may be allowed to progress more smoothly.

For larger developments or developments that are likely to progress over a long period of time, it may be worth considering a 'Considerate Contractors Scheme'. These schemes suggest guidelines to minimise disruption to local residents and businesses and provide a code of conduct for employees on site so that their work does not unduly upset local residents and/or businesses/workers. These schemes include noise as well as many other elements such as dust suppression, deliveries, working hours, behaviour on site, approved delivery routes, etc.

6.2.5 Vibration

Significant vibration within the Borough, with the exception of temporary construction works, is only likely to be generated by passenger or freight trains travelling along railway lines. Ideally, track form and wheel/rail interface would be in the optimum condition to minimise vibration generation. However, wear and tear will over time change the condition of the track surfaces. Road traffic is unlikely to generate any significant vibration, providing the road wearing surface is in reasonable repair. The exception to this is where there is a significant proportion of Heavy Goods Vehicle traffic present, as this can create vibration issues regardless of road surface condition.

A vibration assessment may be required where railway lines are within 75m of a proposed development site. Building services, plant and equipment, including air conditioning and air handling plant, may generate vibration and in turn, re-radiate noise within buildings. All building services plant and equipment should be supported on proprietary anti-vibration mounts. As such, planning permission granted for the installation of services, plant and equipment may include a condition to assess or control plant vibration.

6.3 Technical Guidance for Consultants/Specialists

The following reference documents and guidance constitute some of the more important and relevant legislation and standards relating to noise and the planning process.

6.3.1 BS8233:1999 Sound Insulation And Noise Reduction For Buildings

BS8233 provides a range of factors to be considered through the planning process. It identifies key stages in the design and development of a proposal and considers different types of activities and uses, providing advice and guidance on how to achieve ambient noise levels. This standard suggests design criteria for noise to achieve within a range of differing activities including the work environment, leisure environment and the home environment. It identifies 'Good' and 'Reasonable' noise levels to achieve for the specific proposals/situations. Wherever possible it is expected that the 'Good' level should be aimed for in any new design.

Criterion	Typical Situations	Design Range L_{Aeq},T dB	
		Good	Reasonable
Reasonable industrial working conditions	Heavy Engineering	70	80
	Light Engineering	65	75
	Garages, Warehouses	65	75
Reasonable speech or telephone communications	Department Store	50	55
	Cafeteria, Canteen, Kitchen	50	55
	Wash-room, Toilet	45	55
	Corridor	45	55
Reasonable conditions for study and work requiring concentration	Library, Cellular Office, Museum,	40	50
	Staff Room	35	45
	Meeting Room, Executive Office	35	40
Reasonable listening conditions	Classroom	35	40
	Church, Lecture Theatre, Cinema	30	35
	Concert Hall, Theatre	25	30
	Recording Studio	20	25
Reasonable resting / sleeping conditions	Living Rooms	30	40
	Bedrooms*	30	35
Note - For a reasonable standard in bedrooms at night, individual noise events (measured with F time-weighting) should not normally exceed 45 dB LAmax.			

Table 6.1 Indoor ambient noise levels in spaces when they are unoccupied.

For residential buildings/dwellings, the main criteria are reasonable resting/sleeping conditions in bedrooms and good listening conditions in other rooms. Occupants will usually tolerate higher levels of anonymous noise, such as that from road traffic. More obvious sources, such as that noise from neighbours may trigger complex emotional reactions that are ultimately disproportionate to the noise level. As well as noise protection for the residential buildings, barriers or bunds should be considered to protect the gardens or outdoor areas. For gardens and balconies it is desirable that the steady noise level does not exceed 50 LAeq,T dB and 55 LAeq,T dB should be regarded as the upper limit.

6.3.2 BS4142:1997 Method For Rating Industrial Noise Affecting Mixed Residential And Industrial Areas

BS4142 considers industrial or commercial development proposals; it assesses noise in a local area and compares noise from a particular activity or from equipment against the ambient background noise level. Different noises may attract a rating, which is applied where a noise is distinct, tonal or intermittent. The rated noise level is then compared to the background noise level and the difference between the two levels is used to assess the likelihood of complaints.

This standard also introduces the concept of 'Statutory Nuisance'. If a Statutory Nuisance is proven, then the Council has no option but to take appropriate actions to abate the Nuisance. There are arguments both for and against the use of this standard in the planning process, but what must not be forgotten, is that should planning permission be granted for a development which subsequently receives complaints about noise, then it is quite possible that this standard will be used to assess the noise and determine whether or not the noise constitutes a Statutory Nuisance. As such, it is recommended that this guidance is given due consideration through the planning process and that noise from plant, equipment or activities is assessed and considered under this standard as part of the planning consultation.

6.3.3 Approved Document E – Building Regulations

Building Regulations Approved Document E is the main reference document which relates to the insulation of buildings against airborne and structure borne noise. These regulations do not cover environmental noise, meaning that reference to other technical documents is required if environmental noise is a significant consideration.

Approved Document E covers general building situations and common issues, which could arise if appropriate attention is not paid to the construction elements of a building. It identifies minimum standards for airborne and impact noise within a building. It reviews both new build and conversion of existing buildings (i.e. a change of use). It identifies common structural designs and comments upon the level of acoustic protection that these may offer, allowing review of these factors against guideline values, which should generally protect residential amenity. The document also covers impact noise arising from 'foot fall' on floors and details construction techniques designed to mitigate against such noise. The document either requires testing to be carried out to demonstrate compliance with the required standards or alternatively, construction to a 'robust detail' standard.

6.4 Measures to Deal With Noise Reduction

The prevention of noise pollution is key to ensuring future noise problems are unlikely to be experienced by local residents and businesses/workers and to ensure that any additional noise has a limited effect on the health and well-being of individuals. Therefore, when preparing a development proposal the following matters must be considered:

6.4.1 Building Orientation

A building should be orientated in such a way as to minimise noise exposure. For example, buildings can be arranged so that they form a natural acoustic barrier against any noise sources. This is particularly effective where one side of the development has a dominant noise source, such as a busy road/factory. The façade facing a noise source should be constructed with high performance acoustic mitigation measures built in with all windows and doors having high performance acoustic glazing. Windows should also have proper acoustic edge seals, acoustic trickle vents and the provision of fixed windows should also be considered. Acoustically-treated forced ventilation may also be necessary to minimise the need to open windows. These techniques can be used to great advantage, particularly if designed in conjunction with the layout of the rooms, allowing bedrooms or living rooms to face away from a noise source(s).

6.4.2 Screening of the Site

Barriers or acoustic screens can be used to reduce noise levels. Whether they are an existing feature, such as a railway cutting or embankment; a purpose-designed acoustic barrier, such as a solid boundary fence or earth mound; a purpose-designed feature of the building, such as a courtyard; or the building itself, which attempts to arrange sensitive internal spaces away from any noise source, barriers can prove extremely effective in mitigating or attenuating noise. The main points to consider when designing barriers are:

- They are most effective when located close to either the source of noise or the receiver;
- They protect low-rise buildings better than high rise buildings;

- Generally the taller the barrier the better, but there are physical limits above which the barrier will not realistically offer any additional protection;
- They should usually extend well beyond the site boundary to ensure adequate protection is offered.

Acoustic barriers are usually constructed from timber, although any solid material with a sizeable mass per unit area will provide acoustic shielding. Barriers can even be made from transparent/opaque materials such as plastic, for areas where visual amenity may be of importance. It is vital that an acoustic barrier does not have any gaps within it, as even a small gap or hole in the barrier at ground level is sufficient to render it ineffective.

6.4.3 Building Layout / Design

When considering the layout of a proposed building, it may be better to locate non-habitable rooms, such as kitchens, bathrooms and stairwells on the noisier aspects of the building. This allows these non-sensitive rooms to act as an acoustic barrier to the more sensitive, habitable rooms, which are located at the quieter side of the building.

For semi-detached/terraced houses and flats/apartments, the positioning of rooms relative to those in the adjacent residences is important to ensure that noisier areas such as kitchens, living rooms and bathrooms do not share party walls, ceilings or floors with bedrooms residing in separate occupancy. Such incompatible adjacent room types are highly likely to give rise to noise complaints in the future. If the layout of a building is such that these incompatible room types are adjacent to each other, either vertically or horizontally, then it is likely that uprated acoustic measures will be required in the walls and/or floors to mitigate against noise transfer.

Building Regulations Approved Document E considers impact noise through floors and provides appropriate mitigation measures to counter the effects of footfalls, but it does not consider impact noise through walls that would be commonplace in kitchen areas through the closing/slamming of kitchen doors and drawers. This can be a significant source of noise if a kitchen in one property is adjacent to a bedroom in an adjoining property.

6.4.4 Windows and Doors

The windows and external doors of a building should be to a specification that ensures they provide sufficient insulation against external noise. To achieve a good standard of insulation external doors should be close-sealed with no gaps in or around them, and have sufficient mass to resist external noise.

Where necessary, higher standards may be achieved by providing entrance porches with double doors. Providing they are properly fitted, standard thermal double glazed window units will generally reduce external noise levels by approximately 30 decibels. The amount of noise that is reduced by a feature such as a window is known as the Sound Reduction Index (Rw).

Traffic noise can often result in reverberant noise being passed through glass into a building. This is usually due to the glazing panels being constructed of the same thickness of glass meaning that when the outer pane vibrates, it causes the inner pane to vibrate as well. Acoustic glazing often has different thicknesses of glass incorporated into the glazing unit, meaning each pane has a different reverberant frequency and therefore noise is not transmitted through it as easily. Increasing the thickness of the panes of glass (for example from 4mm to 6mm) provides an improvement in noise attenuation, as does increasing the air gap between the panes. For example panes of 10mm and 6mm with a 12mm gap between them will reduce noise levels by about 34 decibels.

Where external noise levels are very high, thermal double-glazing may fail to provide sufficient acoustic attenuation. If this is the case, then higher performance acoustic glazing, which utilises secondary glazing can be considered. This is usually characterised by an air gap between the panes of at least 100mm and can be constructed with secondary sashes. Again, it is advisable for the two panes to be of different thickness and performance can be further improved if the sides of the air space between

panes are lined with sound absorbent material. Under some circumstances, triple glazing will be sought by the LPA as a means of noise attenuation, but these measures are only usually required in proximity to sites exhibiting a significant noise impact.

Acoustic glazing is only of benefit when the windows are kept closed; this is obviously not always practical. Partially opening the window will typically reduce the acoustic performance by between 10-15dB. This is of great concern where the uprated acoustic performance is to protect occupiers of a bedroom, where opening the window to increase ventilation and comfort will instead introduce unacceptable levels of noise which may make sleep difficult. Windows may also be fitted with acoustic trickle vents, but these are primarily for background ventilation as opposed to rapid ventilation or summer cooling. It may therefore be necessary to introduce alternative acoustically-treated mechanical ventilation to bedrooms and some lounge areas, the aim being to increase ventilation rates in a room without physically opening the window.

6.4.5 Acoustic Ventilation

Where ambient noise levels are high and opening of windows is not desirable, acoustic ventilation may be considered. Whilst it does not usually replace opening windows, it aims to minimise the need to use opening windows, providing a more comfortable internal noise level. The use of acoustic trickle vents can be used to permit adequate background ventilation as required by the Building Regulations. These acoustic trickle vents usually have an acoustic performance in excess of that of uprated glazing, whilst still allowing background ventilation to occur.

Where noise is more extreme and the opening of windows is likely to be required to increase ventilation rates, then it may be necessary to consider forced acoustically-treated mechanical ventilation. This utilises acoustically-treated fans (quiet running) to provide additional fresh ‘make up’ air into a room. If combined with a boost facility, then this may reduce the need to open windows for summer cooling or rapid ventilation purposes. Mechanical systems may include fans within individual rooms or may be incorporated as part of a larger scheme, which provides ‘whole house’ ventilation. This may operate in conjunction with kitchen and bathroom extraction systems to provide both input and output air to the building, sometimes with heat recovery to pre-heat the incoming air with during colder periods. These systems usually filter and acoustically shield the incoming air to prevent external noise entering a building and are usually mounted inside the roof space. Sometimes 'make up' air is brought in from the quieter side of the building to utilise the natural acoustic shielding that the building itself provides.

Mechanical ventilation is often utilised in Air Quality Management Areas where there is the need to shield both transportation noise and polluted air from the occupiers of the buildings. Proofing against noise will usually satisfy many air quality issues; reconfiguration of the system to provide make up air from the furthest point away from a transport source or emission will typically satisfy many air quality issues.

6.4.6 Plant and Equipment

Noise from plant and equipment is an area commonly assessed by the LPA when determining planning applications. It is becoming more frequent in developments of all types. Typical equipment in both commercial and residential developments includes items such as air conditioning plant, retail refrigeration plant or lift motors. Industrial developments are much more varied with the types of plant and equipment being entirely related to the industry in question.

Regardless of the type of equipment the Applicant/Developer should ensure that any noise from external plant or equipment does not exceed the existing ambient background noise level by more than -10dB(A) at the boundary or façade of the closest noise sensitive land use. This should ensure that any noise from plant or equipment does not dominate the noise level in the area; it may be audible at a noise sensitive land use but will be a faint noise when compared to the background noise levels.

Consideration should be given to selecting quieter models of plant and equipment. If this is not feasible, then it may be advisable to consider relocating noisy plant and equipment to a less noise sensitive area of the site. It may also be possible to erect acoustic shielding around any necessary plant and

equipment to contain noise and prevent it causing problems off-site. Some equipment may require additional acoustic mitigation measures to control the impacts from tonal noise or intermittent operation. The use of any plant and equipment overnight usually causes an increase in noise sensitivity, so it may be advisable to limit use during night time periods if possible. Consideration of the above measures at an early stage of the planning process is likely to progress an application more smoothly.

6.4.7 Quick Reference Guide to Residential Development

If a residential development is proposed near to or alongside road or rail networks, the following table and subsequent descriptions may provide an indication as to whether acoustic protection may be necessary to protect residential amenity according to a noise level:

Category	Times (hrs)	LAeq,T (dB) Road	LAeq,T (dB) Rail	Advice
A	07:00 – 23:00 23:00 – 07:00	< 55 < 45	< 55 < 45	Noise need not be considered as a determining factor in granting planning permission, although the noise level at the high end of the category should not be regarded as a desirable level.
B	07:00 – 23:00 23:00 – 07:00	55 – 63 45 – 57	55 – 66 45 – 59	Noise should be taken into account when determining planning applications and, where appropriate, conditions imposed to ensure an adequate level of protection against noise to meet the Council's recommended outdoor and indoor noise levels.
C	07:00 – 23:00 23:00 – 07:00	63 – 72 57 – 66	66 – 74 59 – 66	Planning permission should not normally be granted. Where it is considered that permission should be given, conditions should be imposed to ensure a commensurate level of protection against noise to meet the Council's recommended outdoor and indoor noise levels.
D	07:00 – 23:00 23:00 – 07:00	> 72 > 66	> 74 > 66	Planning permission should normally be refused on the basis of elevated noise levels.

Category A will utilise standard glazing and standard trickle vents; no special acoustic mitigation measures will usually be required.

Category B would benefit from the use of acoustic trickle vents and slightly uprated acoustic glazing. If it is feasible changes to the layout of the property to put bedrooms away from the road or rail noise source would assist to achieve a quieter internal noise level.

Category C will require passive type wall mounted vents and/or acoustic trickle vents. Consideration of acoustically treated mechanical ventilation should be considered for all habitable rooms facing the noise source. Glazing will need to be uprated, use of different thickness glass on inner and outer panes will be necessary. A high level of acoustic protection will be necessary along the facades facing the

noise source. Building orientation should be considered to minimise bedrooms facing the road or rail noise source, any bedrooms which have to face the road or railway will need acoustically treated mechanical ventilation to be installed.

Category D will not normally be granted planning permission. If residential development is inevitable on a site, then extremely high specification glazing and ventilation will be necessary. Glazing will need to be significantly up-rated, use of different thickness glass on inner and outer panes will be necessary as may secondary glazing with a larger air gap. Ventilation must be forced acoustically treated mechanical ventilation as the opening of windows is not practical at many times. It may be recommended that certain windows are non-openable due to the external noise levels. Particular consideration of room orientation within the building will be necessary with non-habitable rooms to the facades facing the road or rail noise source.

6.5 Applications with Potential Noise Implications

The following development proposals may require some element of acoustic review when included within any planning application:

6.5.1 Renewable Energy – Wind Turbines & Heat Pumps

Applications involving renewable energy are becoming more popular as energy costs increase. Some technologies are silent, while others have a potential to create noise during their operation. The main technologies include: 'Solar Panel Arrays', which involves producing electricity from light or hot water from the sun; 'Ground Source Heat Pumps' or 'Air Source Heat Pumps', which produce heat from the ground or air; and Wind Turbines, which convert electricity from wind power.

Wind turbines and the ground or air source heat pumps are of particular relevance to noise. Wind turbines can emit noise as the turbine blades slice through the air. Depending on the location of the turbine and its design, an unacceptable impact may occur on nearby noise sensitive land uses or properties. Most current designs are not really suited for use in dense urban areas due to potential noise problems and the lack of undisturbed wind to power them. Any application for a wind turbine is likely to require a full noise assessment to be submitted with the application to enable the LPA to determine whether it will be suitable for its proposed location.

Ground and Air Source Heat Pump equipment may utilise pumps to assist in the transfer of heat. Obviously equipment utilising pumps and other motorised equipment has the potential to emit noise. As such, some assessment may be necessary to determine whether the heat pumps will have any adverse impacts on amenity beyond the site boundary and if mitigation measures may be required.

6.5.2 Other Potentially Noisy Activities

The following types of development proposals or applications may have additional specific guidance published to review noise impacts or may otherwise be a potential source of noise. It is recommended that pre-application discussions are held with LPA if any of the following application types are to be submitted:

- Clay Pigeon Shooting / Gun Clubs / Rifle Ranges
- Flying of Model Aircraft
- Airstrip
- Motor Vehicle Testing / Proving Grounds
- Off Road Motorbike Tracks
- BMX or Skateboard Ramps
- Electricity Substations/Transformers/Switchgear
- Sports Stadia
- B2 Use Class developments
- Waste Handling Facilities
- Wind Turbines / Wind Farms

The above list is far from exhaustive however it highlights some of the applications that have been considered with particular attention to noise in the past. If there is any doubt over whether noise issues may need to be addressed prior to submitting a planning application, please contact the Public Protection Service for further advice.

6.6 References

1. British Standards [online] Available at: www.standardsuk.com/
2. BS 4142: (1997) Method for rating industrial noise affecting mixed residential and industrial areas.
3. Noise: Environmental: World Health Organisation [online]
4. BS8233 (1999) Sound Insulation and Noise Reduction for Buildings. Noise: Environmental: World Health Organisation [online]
5. Noise Act 1996 [online] Available at: www.legislation.gov.uk/
6. Institute of Acoustics – Good Practice Guide on the control of noise from Pubs and Clubs – Draft Annex 2 (Institute of Acoustics, 2002). [online] Available at: www.cieh.org
7. The Building Regulations (2010) Resistance to the passage of sound, approved E document [online] Available at: www.planningportal.gov.uk/
8. World Health Organisation. (2012) Noise (European Region) [online] Available at: www.who.int/topic/noise
9. Institute of Acoustics: www.ioa.org.uk
10. Association of Noise Consultants: www.association-of-noise-consultants.co.uk

6.7 Glossary

Aerodrome: Any area of land, water, or space on the roof of a building, which is commonly used to provide facilities for the landing and departure of aircraft - including types capable of descending or climbing vertically. The term is generic and embraces other terms such as airport, airfield and heliport. For a formal definition see the Civil Aviation Act 1982.

Background Noise: LA90,T the A weighted noise level exceeded for 90% of the specified measurement period (T). In BS4142:1990 it is used to define the background noise level.

Decibel (dB): A unit of level derived from the logarithm of the ratio between the value of a quantity and a reference value. It is used to describe the level of many different quantities. For sound pressure level the reference quantity is 20 Pa, the threshold of normal hearing is in the region of 0 dB, and 140 dB is the threshold of pain. A change of 1 dB is only perceptible under controlled conditions.

dB(A): Decibels measured on a sound level meter incorporating a frequency weighting (A weighting) which differentiates between sounds of different frequency (pitch) in a similar way to the human ear. Measurements in dB(A) broadly agree with people's assessment of loudness. A change of 3 dB(A) is the minimum perceptible under normal conditions, and a change of 10 dB(A) corresponds roughly to halving or doubling the loudness of a sound. The background noise level in a living room may be about 30 dB(A); normal conversation about 60 dB(A) at 1 metre; heavy road traffic about 80 dB(A) at 10 metres; the level near a pneumatic drill about 100 dB(A).

Hertz (Hz): Unit of frequency, equal to one cycle per second. Frequency is related to the pitch of a sound.

LA10,T: The A weighted level of noise exceeded for 10% of the specified measurement period (T). It gives an indication of the upper limit of fluctuating noise such as that from road traffic. LA10,18h is the arithmetic average of the 18 hourly LA10,1h values from 06.00 to 24.00.

LA90,T: The A weighted noise level exceeded for 90% of the specified measurement period (T). In BS 4142: 1990 it is used to define background noise level.

LAeq,T: The equivalent continuous sound level -the sound level of a notionally steady sound having the same energy as a fluctuating sound over a specified measurement period (T). LAeq,T is used to describe many types of noise and can be measured directly with an integrating sound level meter. It is written as Leq in connection with aircraft noise.

LAmax: The highest A-weighted noise level recorded during a noise event. The time weighting used (F or S) should be stated.

Make Up Air: Air brought in by often mechanical means to provide fresh air into a room or building. This air is to compensate for circumstances where it is either not possible or not desirable to open windows (e.g. along busy highways where opening windows would introduce unacceptable levels of noise).

Noise Creep: Noise creep occurs over a period of time where several noise sources are introduced gradually - each one causing an insignificant increase in noise. The cumulative effect of these noise sources can be significant. This effect is called 'Noise Creep'. To avoid or minimise this, noise sources should be less than 10dB below the existing ambient background noise level (La90,t) where logarithmic addition of sources will not exceed the existing background level.

Noise and Number Index (NNI): A composite measure of exposure to aircraft noise that takes into account the average peak noise level and the number of aircraft in a specific period. Now generally superseded by Leq.

Noise index: A measure of noise over a period of time which correlates well with average subjective response.

6 Noise

Noise Management Scheme: A comprehensive assessment of the noise impacts from a proposal or development which can include operational noise as well as construction noise during the development. Schemes may have an ongoing monitoring element to ensure that regular review and adjustments occur as the development progresses and evolves over time.

Rating level: The noise level of an industrial noise source which includes an adjustment for the character of the noise. Used in BS4142:1990.

Rw: Single number rating used to describe the sound insulation of building elements (sound reduction index). It is defined in BS5821:1984.

WARRINGTON
Borough Council

Warrington Borough Council

[redacted]

14 Noise Planning for England

www.defra.gov.uk

Noise Policy Statement for England (NPSE)

March 2010

2.21 Extending these concepts for the purpose of this NPSE leads to the concept of a significant observed adverse effect level.

SOAEL – Significant Observed Adverse Effect Level

This is the level above which significant adverse effects on health and quality of life occur.

2.22 It is not possible to have a single objective noise-based measure that defines SOAEL that is applicable to all sources of noise in all situations. Consequently, the SOAEL is likely to be different for different noise sources, for different receptors and at different times. It is acknowledged that further research is required to increase our understanding of what may constitute a significant adverse impact on health and quality of life from noise. However, not having specific SOAEL values in the NPSE provides the necessary policy flexibility until further evidence and suitable guidance is available.

The first aim of the Noise Policy Statement for England

Avoid significant adverse impacts on health and quality of life from environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development.

2.23 The first aim of the NPSE states that significant adverse effects on health and quality of life should be avoided while also taking into account the guiding principles of sustainable development (paragraph 1.8).

The second aim of the Noise Policy Statement for England

Mitigate and minimise adverse impacts on health and quality of life from environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development.

2.24 The second aim of the NPSE refers to the situation where the impact lies somewhere between LOAEL and SOAEL. It requires that all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development (paragraph 1.8). This does not mean that such adverse effects cannot occur.

The third aim of the Noise Policy Statement for England

Where possible, contribute to the improvement of health and quality of life through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development.

2.25 This aim seeks, where possible, positively to improve health and quality of life through the pro-active management of noise while also taking into account the guiding principles of sustainable development (paragraph 1.8), recognising that there will be opportunities for such measures to be taken and that they will deliver potential benefits to society. The protection of quiet places and quiet times as well as the enhancement of the acoustic environment will assist with delivering this aim.

15 PPG24

Planning Policy Guidance 24: Planning and Noise

Sources

Noise Levels[0] Corresponding To The Noise Exposure Categories For New Dwellings $L_{Aeq,T}$ dB				
	Noise Exposure Category			
Noise Source	**A**	**B**	**C**	**D**
road traffic				
07.00 - 23.00	<55	55 - 63	63 - 72	>72
23.00 - 07.00[1]	<45	45 - 57	57 - 66	>66
rail traffic				
07.00 - 23.00	<55	55 - 66	66 - 74	>74
23.00 - 07.00[1]	<45	45 - 59	59 - 66	>66
air traffic[2]				
07.00 - 23.00	<57	57 - 66	66 - 72	>72
23.00 - 07.00[1]	<48	48 - 57	57 - 66	>66
mixed sources[3]				
07.00 - 23.00	<55	55 - 63	63 - 72	>72
23.00 - 07.00[1]	<45	45 - 57	57 - 66	>66

Notes

[0]**Noise levels:** the noise level(s) ($L_{Aeq,T}$)used when deciding the NEC of a site should be representative of typical conditions.

[1]**Night-time noise levels (23.00 - 07.00):** sites where individual noise events regularly exceed 82 dB L_{Amax} (S time weighting) several times in any hour should be treated as being in NEC C, regardless of the $L_{Aeq,8h}$ (except where the $L_{Aeq,8h}$ already puts the site in NEC D).

[2]**Aircraft noise:** daytime values accord with the contour values adopted by the Department for Transport which relate to levels measured 1.2m above open ground. For the same amount of noise energy, contour values can be up to 2 dB(A) higher than those of other sources because of ground reflection effects.

[3]**Mixed sources:** this refers to any combination of road, rail, air and industrial noise sources. The "mixed source" values are based on the lowest numerical values of the single source limits in the table. The "mixed source" NECs should only be used where no individual noise source is dominant.

To check if any individual noise source is dominant (for the purposes of this assessment) the noise level from the individual sources should be determined and then combined by decibel addition (remembering first to subtract 2 dB (A) from any aircraft noise contour values). If the level of any one source then lies within 2 dB(A) of the calculated combined value, that source should be taken as the dominant one and the site assessed against the appropriate NEC for that source, rather than using the "mixed source" NECs. If the dominant source is industrial noise see paragraph 19 of Annex 3.

If the contribution of the individual noise sources to the overall noise level cannot be determined by measurement and/or calculation, then the overall measured level should be used and the site assessed against the NECs for "mixed sources".

Recommended Noise Exposure Categories For New Dwellings Near Existing Noise

Sources

Noise Levels[0] Corresponding To The Noise Exposure Categories For New Dwellings $L_{Aeq,T}$ dB				
	Noise Exposure Category			
Noise Source	**A**	**B**	**C**	**D**
road traffic				
07.00 - 23.00	<55	55 - 63	63 - 72	>72
23.00 - 07.00[1]	<45	45 - 57	57 - 66	>66
rail traffic				
07.00 - 23.00	<55	55 - 66	66 - 74	>74
23.00 - 07.00[1]	<45	45 - 59	59 - 66	>66
air traffic[2]				
07.00 - 23.00	<57	57 - 66	66 - 72	>72
23.00 - 07.00[1]	<48	48 - 57	57 - 66	>66
mixed sources[3]				
07.00 - 23.00	<55	55 - 63	63 - 72	>72
23.00 - 07.00[1]	<45	45 - 57	57 - 66	>66

Notes

[0]**Noise levels:** the noise level(s) ($L_{Aeq,T}$)used when deciding the NEC of a site should be representative of typical conditions.

[1]**Night-time noise levels (23.00 - 07.00):** sites where individual noise events regularly exceed 82 dB L_{Amax} (S time weighting) several times in any hour should be treated as being in NEC C, regardless of the $L_{Aeq,8h}$ (except where the $L_{Aeq,8h}$ already puts the site in NEC D).

[2]**Aircraft noise:** daytime values accord with the contour values adopted by the Department for Transport which relate to levels measured 1.2m above open ground. For the same amount of noise energy, contour values can be up to 2 dB(A) higher than those of other sources because of ground reflection effects.

[3]**Mixed sources:** this refers to any combination of road, rail, air and industrial noise sources. The "mixed source" values are based on the lowest numerical values of the single source limits in the table. The "mixed source" NECs should only be used where no individual noise source is dominant.

To check if any individual noise source is dominant (for the purposes of this assessment) the noise level from the individual sources should be determined and then combined by decibel addition (remembering first to subtract 2 dB (A) from any aircraft noise contour values). If the level of any one source then lies within 2 dB(A) of the calculated combined value, that source should be taken as the dominant one and the site assessed against the appropriate NEC for that source, rather than using the "mixed source" NECs. If the dominant source is industrial noise see paragraph 19 of Annex 3.

If the contribution of the individual noise sources to the overall noise level cannot be determined by measurement and/or calculation, then the overall measured level should be used and the site assessed against the NECs for "mixed sources".

16 Highways England – Road Works

APPENDIX 16

[redacted]

Dear Ms Steen,

Thank you for your email on 17 July requesting information on road closures on the M62.

I'm happy to attach details of the closures we had in place. These are for May 22 and 23 and cover the M62 eastbound, junctions 9 to 12.

I hope this information is helpful and please contact me if you have any questions.

Kind regards,

Dianne

[redacted]

EVENT_NUMBER1	SCHEDULE_PLANNED_STARTDATE	SCHEDULE_PLANNED_ENDDATE	ROAD	DESCRIPTION	NOTES	SCHEDULED_EVENT
00082550-002	23/05/2019 20:00	24/05/2019 06:00	M62 (East Bound)	M62 East and Westbound Junction 9 exit slips Hardshoulder and lane one closures for electrical works		Hardshoulder, lane 1 Eastbound Jct 9 exit slip
00089057-003	23/05/2019 22:00	24/05/2019 06:00	M62 (East Bound)	M62 East and Westbound junction 9 to 10 lane and total closures for electrical works		M62 Junction 9 exit westbound Diversion Route
00104623-009	22/05/2019 21:00	23/05/2019 06:00	M62 (East Bound)	M62 Eastbound Junction 10 to 12 Total closure due to Improvements	M60 MP 26/6 - MP 43/7 M6 - MP 308/1 - MP 307/4 M6 - MP 306/6 - MP 307/3 M62 J9 Entry slip M62 J11 Exit & Entry slip	M62 Junction 10 to 12 Eastbound - Total Closure
00104623-009	23/05/2019 21:00	24/05/2019 06:00	M62 (East Bound)	M62 Eastbound Junction 10 to 12 Total closure due to Improvements	M60 MP 26/6 - MP 43/7 M6 - MP 308/1 - MP 307/4 M6 - MP 306/6 - MP 307/3 M62 J9 Entry slip M62 J11 Exit & Entry slip	M62 Junction 10 to 12 Eastbound - Total Closure

[redacted]

Hello Margaret,

In general if we have lane closures or narrow lanes then a reduced speed limit is in place. This would be clearly signed.

The M62 junction 10-12 Smart Motorway works has a reduced speed limit of 50mph. This runs just prior to junction 10 and continues up to junction 12.

Kind regards,

Dianne

[redacted]

17 Planning Appeal APP/M06551/W/173181021

The Planning Inspectorate

Appeal Decision

Site visit made on 23 January 2018

by Roy Merrett BSc(Hons) DipTP MRTPI

an Inspector appointed by the Secretary of State

Decision date: 08 February 2018

Appeal Ref: APP/M0655/W/17/3181021
The Dog Bus / Dog Day Care Centre, Warrington Lane, Lymm WA13 0SW

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a refusal to grant planning permission.
- The appeal is made by Mr John Pearson, The Dog Bus, against the decision of Warrington Borough Council.
- The application Ref 2016/28369, dated 1 June 2016, was refused by notice dated 23 June 2017.
- The development proposed is change of use for site to be used as a dog day care centre.

Decision

1. The appeal is dismissed.

Procedural Matter

2. The proposal is retrospective, the use having been commenced.

Main Issue

3. The main issue is the effect of the development on working conditions for nearby businesses with particular regard to noise disturbance.

Reasons

4. The appeal site is part of a narrow linear estate which accommodates various industrial and office related land uses, located between Warrington Lane to the south and the Bridgewater Canal to the north. The site, which is relatively small and rectangular shaped, essentially comprises an external concrete compound with a timber cabin situated in one corner. Enclosed by a combination of a wall and security fencing, it is immediately bounded by other industrial uses on either side.

5. I have considered the appellant's noise assessment which has had regard to British Standard BS 8233:2014 – Guidance on sound insulation and noise reduction for buildings (BS). The assessment, which was based on a monitoring exercise, concluded that noise levels in relation to dogs barking, experienced within the nearest office to the appeal site would be well within parameters that are considered to be reasonable for work environments where concentration is required.

6. However it is undisputed that the assessment is based on the average noise levels recorded over a given period. I concur with the Council that the

potential effect of this would be to smooth out peaks in noise levels associated with sudden bouts of barking in amongst quieter periods.

7. Furthermore irrespective of levels, the BS recognises that people's sensitivity to noise varies and that it is not practicable within the guidance to consider psychological factors such as distinctions between pleasant and unpleasant sounds. The BS goes on to indicate that in a residential context there is usually more tolerance of noise without a specific character, which would not include that which is irregular enough to attract attention. I consider that it would be reasonable to regard the noise of a barking dog as having a specific character and therefore, having regard to the BS, a potentially less tolerable form of noise. Whilst I acknowledge that the appeal site is within an industrial rather than residential location, where there may be greater tolerance of a less quiet environment in general, I am not persuaded this means that a business worker seeking to concentrate on a particular task would not be sensitive to unpleasant noise.

8. I am in no doubt that the sudden experience of dog barking, when not expected, the characteristics of which may be unpleasant and aggravating, would be a startling source of disturbance and irritation for occupiers of nearby businesses seeking to focus on various aspects of work. Accordingly, it seems to me that this would be harmful to the working conditions of those occupiers.

9. From the information before me I have no reason to conclude that barking would occur infrequently, given the number of dogs that might be present on the site. Notwithstanding the presence of a high boundary wall to part of the site, the impact would be exacerbated given that barking may occur externally in relatively close proximity to offices with potentially open windows.

10. I accept that such disturbances would be unlikely to occur constantly and acknowledge the presence of isolation rooms within the cabin intended as space for calming excited animals. I also note the appellant's point that additional staff have been employed allowing dogs to be walked away from the site more frequently.

11. However, notwithstanding these considerations, I also note that the appellant has taken steps to procure a purposely constructed noise insulated building. Whilst, in principle, this would indicate a positive approach in terms of attempting to deal with the issue, irrespective of whether a solution could be found that is acceptable to the Council, it also indicates recognition on the part of the appellant that there is an ongoing issue that needs to be dealt with.

12. The appellant has suggested that if the appeal is allowed, he would then take steps to put a suitably constructed building in place on the site. However, there can be no guarantee that an effective solution would be found that would be acceptable to the Council. Accordingly this would not be an appropriate or realistic approach.

13. I am also mindful that a nearby occupier found reason to proactively complain to the Council about the appellant's business and whilst it appears that some land users are now content with the position, a significant number of others have maintained objections on disturbance related grounds. Although the appellant makes the point that industrial noise on the estate is greater than that being made by dogs, it has not been brought to my attention that other forms of noise are a source of disturbance to occupiers. Whilst I note the

appellant's intention not to accept noisier dogs at the site, this is not a solution that could be readily enforced.

14. Drawing the above considerations together, I give limited weight to the findings of the appellant's noise assessment and conclude that the development is causing genuine and ongoing harm to the working conditions of nearby businesses with particular regard to noise disturbance. Accordingly I find conflict with Policies CS 1 and QE 6 of the Warrington Borough Council Core Strategy 2014 and the National Planning Policy Framework insofar as they seek to secure a good standard of amenity for all existing and future occupants of land and buildings.

Conclusion

15. Therefore, for the above reasons and having had regard to all other matters raised, I conclude that the appeal should be dismissed.

Roy Merrett

INSPECTOR

18 Case No: CO/454/2018 Ornua Ingredients v Herefordshire Homes

Neutral Citation Number: [2018] EWHC 2239 (Admin)

Case No: CO/454/2018

IN THE HIGH COURT OF JUSTICE
QUEEN'S BENCH DIVISION
BIRMINGHAM DISTRICT REGISTRY
PLANNING COURT

Birmingham Civil Justice Centre
Bull Street, Birmingham B4 6DS

Date: 22/08/2018

Before :

HHJ DAVID COOKE

- -

Between :

R (oao Ornua Ingredients Ltd)	**Claimant**
- and -	
Herefordshire Council	**Defendant**
Barratt Homes	**Interested Party**

- -
- -

Jenny Wigley (instructed by **Burgess Salmon LLP**) for the **Claimant**
Hugh Richards (instructed by **internal solicitors**) for the **Defendant**
Peter Goatley (instructed by **Shakespeare Martineau LLP**) for the **Interested Party**

Hearing date: 5 July 2018

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Approved Judgment

HHJ David Cooke :

1. The claimant challenges the decision of the defendant council on 21 December 2017, acting by officers under a delegated authority, to approve reserved matters including the layout of a housing development at Ledbury. That decision was taken in relation to outline planning permission for building 321 houses on the site that had been granted by an Inspector on appeal in April 2016. The claimant is the owner of a factory making cheese adjacent to the site. The Interested Party is now the owner of the development site, having bought it with the benefit of the outline planning permission.

2. The claim proceeds on one ground only, for which I gave permission on 27 March 2018, that the council failed to take into account a material consideration in that it did not take any account of representations made by the claimant on 15 December 2017 including a report by acoustic engineers on its behalf which, it says, casts doubt on a conclusion previously reached that it would in principle be possible to produce a scheme for mitigation of noise emitted by the claimant's factory such that it would be reduced to acceptable levels at houses built to the proposed layout.

3. It is not in dispute that the council received the representations and report concerned, and it is accepted that no consideration was given to them before the reserved matters decision was taken. The position of the council and the Interested Party is that this did not amount to an error of law because the outline permission was in any event subject to a condition (Condition 21) that before any development the council must first have approved "a scheme of noise mitigation for outdoor living areas, bedrooms and living rooms" for the houses to be built which would "include details of proposed ameliorative measures to mitigate against noise from operations within the nearby industrial estate… including the [claimant's] cheese factory…". The reserved matters decision did not amount to discharge of this condition, so that if it turned out in due course that acceptable noise mitigation could not be achieved with the approved layout no development could in any event begin and the developer would have to produce a revised layout, for which acceptable noise levels could be achieved. The representations on noise issues were thus, it is said, not material considerations at the point of approving the layout and no error was committed by ignoring them.

4. The claimant's commercial concern of course is that it should not be at risk in future of claims for noise nuisance by occupiers of the houses that might cause it to have to curtail its operations or pay for noise mitigation measures of its own. Insofar as such measures are necessary, it no doubt wants the developer to undertake them at the outset at its own expense, but it says that to the extent the developer has engaged in any discussion with it as to the measures it is prepared to undertake, they are not capable of producing acceptable levels given the proposed layout. It fears that if the layout is approved, in practice the council will come under pressure (and might even be obliged) to approve a scheme of noise mitigation which could be presented as the best practically achievable with that layout, but which would not be sufficient to protect it from future claims and the trouble and expense they would bring.

5. In return the council says there is no question of it being obliged to accept inadequate noise mitigation, and it would be fully entitled to withhold approval for discharge of condition 21 even if that meant revision of the layout previously approved.

6. It is obvious that there is a linkage between questions of layout of houses on the development and the noise mitigation measures that may be required to produce an acceptable noise level at and within those houses. The nearer a house is to the emitter of a given noise the louder that noise will be, as heard at the house itself, so that more effective measures of noise reduction or attenuation may be required to render it acceptable. Noise received in gardens will be less if the gardens are sited on the far side of the house from the source, and so shielded to some extent, than if they are on the near side. Noise heard in a given room, such as a bedroom, will also be affected by whether that room is on the near or far side from the source. In principle no doubt the two issues could be considered entirely separately, but in reality anyone seeking to design a layout would be bound to have some regard to this interaction and the likely effect of noise on the houses, not least because it might be very inefficient and expensive to have to revisit the layout if it emerged later that the noise condition could not be satisfied. I do not doubt either that in practice once a layout had been approved there would be a risk that the developer might seek to exert pressure on the planning authority to accept noise reduction measures it proposed, if the alternative was to revisit that layout with the possible delay disruption and expense that might cause. That does not mean of course that the authority would be necessarily bound to accede to any such pressure.

7. Noise was an issue before the Inspector. Her decision letter includes the following:

> "Dominant noise sources likely to affect future occupiers are the adjacent industrial units and traffic on Leadon Way and Dymock Road. The appellant's noise report sets out various mitigation measures that could be secured by condition. The measures that provide the baseline for the conclusions in the report do not, it transpires, take account of the proposed roundabout on Leadon Way which would, potentially, introduce noise from vehicles braking on approach, and accelerating away from it. I have no reason to suppose, however, that associated noise would preclude development on the appeal site and am satisfied that an appropriately worded condition would deal with the matter and would ensure that acceptable living conditions were provided for future occupiers.
>
> … As referred to earlier, a scheme of noise attenuation is necessary to ensure acceptable living conditions for future occupiers "

8. The application for approval of reserved matters was submitted in December 2016. It included, amongst other matters, the proposed layout for the site. It was referred by officers for consultation to the council's Environmental Health Department, and it is plain from the consultation responses that the officers in that department were significantly concerned by the potential impact of noise on the proposed houses, and wanted to be satisfied that appropriate mitigation measures could in principle be devised for the layout proposed. The developer's acoustic experts, Wardell Armstrong were asked to submit noise modelling reports to supplement reports they had prepared at the time of the original planning application in 2014 and 2015. These were sent in January and April 2017, and in the consultation response dated 8 May 2017, the

Environmental Health Department set out what appear to be fairly serious concerns about the information provided.

9. They said they did not agree with Wardell Armstrong that the appropriate limit for noise garden areas was 55 dB, that the acceptable limit ought to be 50 dB but the modelling provided showed levels between 55 and 60 dB. This was described as "not acceptable", and although this particular point seems to be directed at traffic noise, may indicate that the EHO considered that Wardell Armstrong were tending to seek to apply inadequate standards. In relation to noise from the cheese factory, it was noted that the mitigation levels proposed in the April report produced a worse result than had been suggested in the January report with noise levels "likely to be around 5 dB above background sound levels… This is not desirable."

10. It was noted that in the 2015 report Wardell Armstrong had anticipated that the houses closest to the cheese factory would have their gardens facing away from the factory so that they would be screened by the houses, but the layout now proposed included two houses where this was not the case. Further, the original report had suggested noise mitigation measures being taken on the factory premises but these were now omitted (though it was noted that this might have to be reconsidered). Further information was requested on this and also in relation to night-time noise where it was noted that "our concern is that closest residents may be adversely impacted in their bedrooms at night time when much lower background noise levels exist. Please can the applicants supply further noise contours of the closest dwellings… to evaluate the impact of this noise."

11. Further noise contour drawings were provided by Wardell Armstrong on 23 May, and the EHO made a site visit before submitting a further consultation response on 7 June. In that response it was noted "At visits to the proposed site both during the day and late evening officers from our department noted the constant humming noise emanating from [the cheese factory]… which was identified as the dominant noise source in the locality and was accompanied by a hissing (pressure relief type) noise every few seconds. Without mitigation, this would seriously impact on the amenity of residential properties in close proximity to the site. Mitigation of the 24/7 sound source on the roof at [the cheese factory] has been mentioned as an option in a number of Wardell Armstrong reports… Despite this at our meeting 26 May 2017 it would appear that… there has been no discussion with [the claimant] on this issue." It was also noted that the information provided indicated that during the daytime noise levels from the cheese factory would be between 5 and 10 dB above background level "thus indicating a likely adverse impact, depending on context." Further, the difference at night time was suggested to be between 23 and 26 dB, significantly more than the level of 10 dB which the relevant British standard suggested would be "likely to be indication of a significant adverse impact depending on context."

12. Further concern was expressed about low-frequency noise measurements, where the council's own measurements showed a significant difference from those provided by Wardell Armstrong. This was evidently a serious concern; this document concluded "we would strongly recommend the Wardell Armstrong proposed option to mitigate the [cheese factory] sound at source and this needs to be further explored with [the claimant]. Alternatively we recommend the site layout and design should be further reviewed to assess the suitability of siting dwellings close to [the cheese factory]… There must either be attenuation of this noise at source or a buffer zone on the site

where there is no residential development or a combination of the two so that we could be satisfied that noise from [the cheese factory] (including low-frequency noise) does not impact on the amenity of residents when their windows are open as well as closed."

13. A further response was sent by Wardell Armstrong on 16 June, in relation to which the EHO commented on 5 July 2017 "the proposal for mitigation of the noise [from the cheese factory] at source has been dropped after repeated references to this in earlier submissions. The noise consultants advise that the low-frequency noise can be addressed by residents keeping their windows closed night time. Our submission is that this is not a reasonable expectation on residents… and is contrary to World Health Organisation guidelines… Our low-frequency noise assessment and the officers' site observations would support the BS:4142 assessment findings in that the [cheese factory] noise source is likely to have a significant adverse impact on the dwellings closest to the noise source. This is especially so at night time…" The "strong recommendation" that mitigation measures and or a change of layout be considered was repeated.

14. This led to a yet further proposal by Wardell Armstrong, which was sent on 10 October. That document provided, as had been requested, a specification for proposed mitigation measures on the cheese factory site, in the form of a 3 m high acoustic fence in combination with sound insulation measures at the principal sources of noise from the factory. This led the EHO to send an email to the planning officer dealing with the matter on 17 October in which she said "The proposed mitigation works… will be satisfactory for the site with windows open… as long as the mitigation at the [cheese factory] site namely a) acoustic fencing and b) extract plant mitigation… are undertaken."

15. An officers' report was then prepared for the meeting of the planning committee. It is accepted that it contained an adequate summary of the consultation that had been undertaken with the EHO and the result that had been reached. Members were informed that the layout had been referred to the EHO who had initially been concerned that it might not be possible to achieve acceptable noise mitigation but that "the work that has been completed by [Wardell Armstrong] has demonstrated that there are measures that can be taken. The provisions of condition 21 remain in force and it is incumbent upon the developer to provide further information for the condition to be discharged, but officers are sufficiently content that noise from [the cheese factory and the road] can be mitigated on the basis of the layout shown above."

16. The minutes of the committee meeting make clear that members of the committee were concerned about noise. They record that they were told by the officer "it was not a requirement of the reserved matters application to address all the conditions imposed by the inspector. With reference to condition 21 relating to noise, for example, the Environmental Health Officer had to be satisfied that a scheme could be implemented to mitigate that issue. It was then incumbent upon the developer to submit a suitable scheme to enable the application to proceed. The absence of the detailed scheme at this stage was not a ground upon which to refuse a reserved matters application." The committee resolved that (subject to conditions not relevant for present purposes) delegated authority be given to officers to issue the reserved matters approval.

17. It was only after this that the claimant became aware of the matters that had been under discussion. There had been no consultation by planning officers or the EHO with the claimant (it is not suggested there was any obligation to undertake such consultation) and the measures that Wardell Armstrong proposed by way of noise mitigation, which would require to be executed on the claimant's land, had not been agreed with the claimant. On 15 December 2017 the email that forms the basis of this challenge was sent, enclosing a report prepared by Hayes McKenzie, the claimant's acoustic consultants, and:

    i) drawing attention to the fact that in its calculations of noise impact the latest Wardell Armstrong report had dropped a 6 dB "tonal penalty" that had been applied in its 2014 and 2015 reports, and stated that in their opinion further measurements showed that the sound from the cheese factory was not tonal in quality. However Hayes McKenzie had performed their own measurements which, in their view, showed a distinct tonal quality as a result of which the relevant British standard required a tonal penalty to be applied.

    ii) Referring to further background noise data collected by Hayes McKenzie, including measurements for evening and night periods that had not previously been assessed.

    iii) Stating that Hayes McKenzie's opinion was that in light of these factors the proposed mitigation measures would not prevent a significant adverse impact on residents likely to give rise to complaints, and that with the layout proposed, it would not be possible to achieve suitable mitigation.

18. The email requested that determination of the reserved matters application should be delayed "until this issue has been properly addressed and a suitable scheme agreed by [the claimant and the developer]". It is not clear exactly what happened on receipt of that email; the planning officer did not however refer the matter back to the EHO for any comment, nor did he ask the developer or Wardell Armstrong to respond to it, nor did he refer the matter back to members of the planning committee. There is no note or other record, or other evidence, showing what if any consideration was given to the email and the Hayes McKenzie report. Thus, although the position of the council now is that any information casting doubt on the advice the EHO had given was irrelevant because it could all be addressed as and when an application was made to discharge condition 21, there is no evidence at all that the relevant planning officer considered the matter and came to that conclusion at the time.

19. In fact, as Mr Richards points out, the email may have somewhat overstated Hayes McKenzie's opinion in relation to proposed mitigation. It is apparent from the content of the report that, whilst it strongly disputes Wardell Armstrong's conclusion that the tonal penalty should not be applied, stating that its measurements show "a tone at around 600 Hz which has a tonal audibility greater than 10 dB confirming the requirement for a 6 dB rating correction under BS 4142" the conclusion reached was that "it is therefore possible that the only way of achieving an acceptable external noise environment is through greater separation distance between the factory and nearby housing." This, Mr Richards says is not a conclusion that adequate noise mitigation *is not* possible, but only that it *may not* be possible.

20. It cannot however be said that this is the reason why no action was taken in relation to the email; there is simply no evidence that any planning officer considered it all came to any view of it at all.

21. Ms Wigley's submission is that the law in relation to what is a material consideration and the obligations on officers acting under a delegated power when a material matter arises after a delegated power is given to them but before they exercise that power to make a decision is set out on the judgment of Jonathan Parker LJ in *R (Kides) v South Cambridgeshire DC* [2002] EWCA Civ 1370, in which he said:

> "*"material considerations"*
>
> 121 In my judgment a consideration is "material", in this context, if it is relevant to the question whether the application should be granted or refused; that is to say if it is a factor which, when placed in the decision-maker's scales, would tip the balance to some extent, one way or the other. In other words, it must be a factor which has some weight in the decision-making process, although plainly it may not be determinative. The test must, of course, be an objective one in the sense that the choice of material considerations must be a rational one, and the considerations chosen must be rationally related to land use issues.
>
> ***"have regard to"***
>
> 122 In my judgment, an authority's duty to "have regard to" material considerations is not to be elevated into a formal requirement that in every case where a new material consideration arises after the passing of a resolution (in principle) to grant planning permission but before the issue of the decision notice there has to be a specific referral of the application back to committee. In my judgment the duty is discharged if, as at the date at which the decision notice is issued, the authority has considered all material considerations affecting the application, and has done so with the application in mind – albeit that the application was not specifically placed before it for reconsideration.
>
> 123 The matter cannot be left there, however, since it is necessary to consider what is the position where a material consideration arises for the first time immediately before the delegated officer signs the decision notice.
>
> 124 At one extreme, it cannot be a sensible interpretation of section 70(2) to conclude that an authority is in breach of duty in failing to have regard to a material consideration the existence of which it (or its officers) did not discover or anticipate, *and could not reasonably have discovered or anticipated*, prior to the issue of the decision notice. So there has to be some practical flexibility in excluding from the duty

> material considerations to which the authority did not *and could* not have regard prior to the issue of the decision notice.
>
> 125 On the other hand, where the delegated officer who is about to sign the decision notice becomes aware (or ought reasonably to have become aware) of a new material consideration, section 70(2) requires that the authority have regard to that consideration before finally determining the application. In such a situation, therefore, the authority of the delegated officer must be such as to require him to refer the matter back to committee for reconsideration in the light of the new consideration. If he fails to do so, the authority will be in breach of its statutory duty.
>
> 126 In practical terms, therefore, where since the passing of the resolution some new factor has arisen of which the delegated officer is aware, and which might rationally be regarded as a "material consideration" for the purposes of section 70(2), it must be a counsel of prudence for the delegated officer to err on the side of caution and refer the application back to the authority for specific reconsideration in the light of that new factor. In such circumstances the delegated officer can only safely proceed to issue the decision notice if he is satisfied (a) that the authority is aware of the new factor, (b) that it has considered it with the application in mind, and (c) that on a reconsideration the authority *would* reach (not *might* reach) the same decision."

22. Issues relating to noise were, she submitted, inevitably material considerations in addressing the reserved matters application because of the link between layout and perceived noise at the houses, notwithstanding the existence of the separate condition specifically requiring acceptable noise mitigation. The council was obliged, she submitted, to be satisfied at least that acceptable mitigation was possible in principle before approving a given layout, even if the detail was then left to a later application to discharge the condition. Alternatively, if the council was not obliged to take noise issues into account at that stage it was entitled to do so if it wished, and since the council had in this case plainly chosen to take noise into account at the reserved matters stage it had become a material consideration even if it need not have been treated as such.

23. As to the first point, that noise was an obligatory consideration, Ms Wigley submitted that it must be so, since otherwise when an application was made to discharge condition 21 it would be argued that the council could not lawfully refuse that application on the basis that acceptable mitigation was not possible unless the layout was changed. She pointed to *Thirkell v Secretary of State* [1978] JPL 844, holding that reserved matters approval could not be withheld on a ground that had already been decided in principle at the grant of outline planning permission as that would be to reopen an issue already decided and frustrate the permission granted. She accepted this could not be read across directly to the position where a condition is considered after reserved matters approval, but submitted the same would apply by analogy; the council having approved a layout at one stage could not make it impossible to

implement that layout by adopting standards for what constituted acceptable noise levels that could not practically be achieved with that layout.

24. Mr Richards submitted that there was no question of frustration. The permission granted was dependent on both an acceptable layout and acceptable noise mitigation; the fact that one layout had been approved did not preclude the developer submitting another and the council would be perfectly entitled to refuse discharge of condition 21 if not satisfied with the mitigation measures proposed, leaving the developer with the option of submitting revised mitigation measures or a revised layout, or a combination of the two.

25. Counsel are agreed there is no prior authority either way directly in point. For my part, I can see force in Ms Wigley's submission, and I do not find particularly persuasive the argument that because the layout was approved as a reserved matter the planning authority could in effect compel submission of a revised layout by a conclusion that the one approved could not result in satisfaction of an outstanding condition as to noise. Such a condition might equally be imposed on a grant of full planning permission, or on a grant of outline permission where layout was not one of the reserved matters. If it might be argued (as presumably it could) that refusal to discharge a condition amounted to frustration of a permission in those forms, why should it make a difference that the permission in place is a composite of an outline permission and a reserved matter approval, as here?

26. No doubt it would be fairly rare for a condition imposed to be absolutely impossible to fulfil. For instance, a condition as to noise could in principle always be discharged by procuring the cessation of the source of noise. In practice, the argument would no doubt be that refusal to discharge the condition made it impossible in the real world to implement the permission because the measures required were impractical or uneconomic (eg perhaps if noise mitigation to the standard required involved the closure of a road or factory). It is fairly easy to imagine circumstances in which such an argument could arise, so it cannot be said that it is so fanciful that the duty argued for cannot exist.

27. In the end however I have concluded that I do not need to decide that point in the present case, because Ms Wigley succeeds on her secondary argument. The interaction of layout with satisfaction of the noise condition was in my view plainly such that the council was entitled to have regard to it in considering the reserved matters application. It is evident from the consultation, the officers' report and the minutes of the meeting that it did so, and approached the matter on the basis it required to be satisfied that satisfaction of the noise condition would not be rendered impossible. The advice given to members was expressly on the basis that having regard to the measures the developer had proposed officers and the EHO were satisfied the condition was capable of discharge without changing the layout, and the delegated authority given to the officers was plainly premised on that advice.

28. In this context it is clear, it seems to me, that further information coming to light that cast significant doubt on the validity of that advice amounted to a material consideration. It would, adopting the test set out in *Kides*, have been bound to tip the balance of consideration to some extent- if for instance members at the meeting had been told that the acceptability of the revised proposals depended on the developers experts having apparently watered down the standards applied by excluding a tonal

penalty on a basis that now appeared open to challenge it is not realistic to say this would not have been considered relevant. This is particularly so given the history of concern on the part of the EHO, including apparent concern that Wardell Armstrong had sought to apply standards the EHO considered inadequate and provided measurements that did not appear to be supported by her own observations.

29. Such information would not I think be an entirely new material consideration, arising for the first time after the grant of delegated authority, such as Jonathan Parker LJ appeared to be envisaging in the passage quoted in *Kides*, but best considered as material bearing on a matter already taken into account. I am bound to say I have some difficulty in reconciling what he said at para 122, which seems to envisage that a new matter must have been considered by the authority before a delegated power is exercised, but not necessarily by the officer referring it back to the authority, and para 125 which seems to indicate that if the new material is received immediately before a decision is taken it must be referred back to the planning authority, ie members. But in the present context I think the resolution is that the delegated authority itself confers on officers a degree of power to consider for themselves new relevant information bearing on the exercise of the power they have been given such that, depending on the terms of the authority conferred, they may properly take a view as to whether in light of such information they should proceed to make a decision or refer the matter back to the members. If they do so, the new information has been considered by the planning authority, at the level of the officers acting under delegated powers, before the decision is taken and its duty is satisfied.

30. There may of course be issues that arise in a particular case whether the scope of the delegated authority is sufficient to allow officers to take their own decision on information they in fact receive, or, if it is, whether the decision they reach on that information is rational. But no such considerations arise in this case, because on the evidence before me the officers did not give any consideration at all to the 15 December email or the report it attached.

31. Mr Richards submitted that even if such consideration had been given, the result would inevitably have been the same because officers would have concluded that the matters raised could (indeed must) have been left to be addressed later on discharge of the condition. But this it seems to me flies in the face of the way the matter had been dealt with previously both by officers and members. Although Mr Richards points to textual matters in the email and the attached report that he says might have led to a conclusion they did not raise a strong enough doubt about the previous advice to prevent the decision proceeding, these are not such that the email and report must inevitably have been dismissed out of hand. It cannot be said, it seems to me, that responsible officers who had advised members they and the EHO were satisfied the noise condition was capable of discharge would inevitably have proceeded to a decision on considering new information, apparently supported by expert advice, casting doubt on what members had been told, without referring that information to the EHO or members or both.

32. It follows in my judgment that an error of law was committed. The error may be considered either as a failure by the planning authority to consider, either at the level of members or officers, a material factor in the form of the information provided with the 15 December email, or as a failure by officers properly to exercise the delegated

power they had been given by evaluating and coming to a conclusion on that information.

33. In either case, the result is the same and the decision taken must be quashed and remitted to the authority for redetermination.

34. I will list a hearing at which this judgment will be handed down. I do not require attendance on that occasion, though if there are matters arising that can be conveniently dealt with in 30 minutes I will take them at that hearing. If a longer or later hearing is required, counsel should submit and agreed time estimate and joint availability so that it can be listed.

19 Case No: CO/1639/2018 Cemex (UK) Operations Ltd v Richmondshire

Neutral Citation Number: [2018] EWHC 3526 (Admin)

Case No: CO/1639/2018

IN THE HIGH COURT OF JUSTICE
QUEEN'S BENCH DIVISION
ADMINISTRATIVE COURT
PLANNING COURT

Date: 19/12/2018

Before :

HER HONOUR JUDGE BELCHER

- -

Between :

CEMEX (UK) OPERATIONS LIMITED	**Claimant**
- and -	
RICHMONDSHIRE DISTRICT COUNCIL	**Defendant**
-and-	
DAVID METCALFE	**Interested Party**

- -
- -

Miss Jenny WIGLEY (instructed by **Clyde & Co**) for the **Claimant**
Mr Juan LOPEZ (instructed by **Darlington Borough Council Legal Services**) for the **Defendant**

Hearing dates: 9 and 26 November 2018

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Approved Judgment

Her Honour Judge Belcher :

1. In this matter the Claimant challenges the decision of the Defendant local planning authority dated 15/03/2018 granting planning permission (the Permission") to the IP (the "IP") for the conversion of a stone barn into a three-bedroom dwelling with

detached garage on land at Quarry Barn, Moor Road, Leyburn, North Yorkshire (the "Property").

2. The Statement of Facts and Grounds contains five Grounds of challenge. By Order dated 20 June 2018, John Howell QC, sitting as a Deputy High Court Judge, granted permission on the papers in relation to Ground 4 and part only of Ground 5, but refused permission on Grounds 1, 2, and 3, and the remaining part of Ground 5. He ordered the matter to be listed for one day-based on that permission order. The Claimant sought to renew the Application for Permission on Grounds 1 to 3 and asked that this be considered within the substantive hearing. Those Grounds are substantial, and the net effect was that the one day allowed for the substantive hearing was insufficient. Fortunately, we were able to find a second day within a reasonably short time frame, but I repeat my advice to Counsel that in such circumstances, the time estimate given should be revisited and, if appropriate, a revised time estimate provided to the listing officer. Having heard argument over 2 days, I am satisfied that permission should be granted on Grounds 1, 2, and 3. I grant permission accordingly.

3. At the outset of the hearing, both parties sought permission to rely upon further witness evidence, and each opposed the other's Application on the basis that the evidence in question was inadmissible. I allowed both Applications on the basis that I considered the evidence to be admissible, and that the real issue was as to its relevance and or weight. There was also an Application by the Claimant for permission to add, whether as a new Ground or as part of Ground 5, the comments at Paragraph 8 of the Claimant's Response. I gave a preliminary indication that I did not consider this to be a new Ground, but in any event, Counsel agreed that all matters should be dealt with by the court within this hearing. References in this judgment to the trial bundle will be by Tab number, followed by the page number, for example [15/102]. References to the bundle of authorities will be by the capital letters AB, followed by the Tab number, for example [AB/10].

The Facts

4. The Claimant is a global producer and marketer of cement, concrete and other building materials. Within the UK it is a leading producer of ready mix concrete, and the third largest cement and asphalt producer. The claimant operates a major limestone quarry (the "Quarry") on an industrial site which includes an asphalt road stone coating plant (the "Asphalt Plant") at Black Quarry, Leyburn North Yorkshire. The Asphalt Plant and the Property are located directly opposite each other on opposite sides of a road called Whipperdale Bank. The Property is located 64 m to the south of the Asphalt Plant. The distance between the Quarry and the Property is 569 metres.

5. The Quarry and Asphalt Plant operate subject to planning conditions imposed on 5 April 2000 in a Minerals Planning Permission granted by North Yorkshire County Council (the "Minerals Permission") [23/161-170]. Conditions 14 to 16 of the Minerals Permission limit the hours of operation of the Quarry, but there is no limit on the hours of operation of the Asphalt Plant [23/166]. Condition 17 of the Minerals Permission, which appears under the heading "Noise Control ", requires that noise from the operations on the site including the use of fixed and mobile machinery shall not exceed a noise limit of 55 dB (A) LA eq (1 hour) free field at two residential properties, namely Moor Farm, and Stonecroft, Washfold Farm [23/167]. There is no dispute in this case

that the Claimant's operations, and the Asphalt Plant in particular, generate a considerable amount of noise.

6. I have the benefit of an aerial photograph based on ordnance survey land line data [12/86]. I was provided with an enlarged and much clearer version of this document which was kept loose during the trial. For ease of reference I shall refer to that enlarged aerial photograph as "AP1". AP1 has a number of arrows and distances marked on it. There are arrows purporting to show distances between Moor Farm and the Property, and between Washfold Farm and the Property. Miss Wigley advised me that those arrows should in fact be from the respective farms to the Asphalt Plant, rather than to the Property. There is no dispute in this case that the distances shown on AP1 are from the respective farms to the Asphalt Plant. Thus, Moor Farm is 1131 metres from the Asphalt Plant, and Washfold Farm is 652 metres from the Asphalt Plant.

7. On 21/01/14 the Defendant granted planning permission for conversion of the Property in a manner almost identical to the development which is the subject of the Permission which is challenged before me. The Claimant's case is that it did not receive any notice from the Defendant in relation to that planning application, and did not otherwise become aware of it. In those circumstances, the Claimant was obviously not able to object to that application. It is the Claimant's case that had it been aware of that application, it would have objected to it because of the proximity of the Property to the Quarry and the Asphalt Plant, and the adverse impact those operations would have in noise terms for the residents of the Property. (See Witness Statement of Mark Kelly, paragraph 26: 25/176]. There is no dispute that the Defendant's own Environmental Health Department was not consulted with regard to noise emanating from the Claimant's operations in relation to the 2014 grant of planning permission.

8. The Property has been developed. However, there is no dispute that the works undertaken to convert the barn constituted unlawful development. This is because the pre-commencement conditions contained in the 2014 planning permission had not been discharged prior to the start of the works. Accordingly, in February 2017, the IP made a fresh planning application to regularise the position, with the proposed development being the same as that previously approved, save for the addition of a detached garage.

9. On 25/04/2017 the Claimant submitted objections in the form of an e-mail note from Dr Paul Cockcroft of WBM Acoustic Consultants, raising the issue of noise impacts at the Property. As a result, the Defendant's Planning Officer, Natalie Snowball, consulted Lindsey Wilson, a Scientific Officer in the Defendant's Environmental Health Department. Lindsey Wilson made an initial visit to the site to look at the relationship between the quarry and the dwelling. On 23/05/17 Lindsey Wilson sent an e-mail to Natalie Snowball about that visit. In her e-mail Lindsey Wilson describes clearly audible noise from the Asphalt Plant despite the wind direction blowing noise away from the Property. She comments that the noise had the potential to have a significant adverse impact on that the proposed dwelling, particularly at night as it would appear that the Asphalt Plant has permission to operate through the night where background noise levels will be low. In those circumstances, she recommended that the IP should be requested to carry out a noise impact assessment by reference to BS 4142:2014 "Methods for rating and assessing industrial and commercial sound", and should give consideration to BS 8233, "Guidance on sound insulation and noise reduction for buildings", with regard to whether recommended noise levels are achievable [16/117].

10. Her email continues as follows:

> "I have also sought advice from North Yorkshire County Council mineral planning with regards to the planning permission for the quarry and whether any existing noise conditions would apply to [the Property] should permission be granted, or whether they could apply any review of the planning permission, which I understand is overdue. ….. My initial concern is that should a noise limit from quarry operations be applied to this property, the quarry may be unable to comply particularly to any night time limit applied, and this would therefore impact on the operations of the existing quarry. I would therefore also recommend that consideration is given to this aspect" [16/117].

11. The IP instructed Apex Acoustics to undertake the noise assessment. Apex Acoustics produced a report dated 10/08/2017 (the Apex Report") [17/119-138]. I shall have to consider the Apex Report in some detail later in my judgment, but for present purposes it suffices to say that the assessment carried out under BS4142 indicated a significant adverse effect from noise at the Property for both daytime and night time periods, and demonstrated high noise levels at the Property. The assessment results showed levels of noise far exceeding the threshold for the 'significant observed adverse effect level' as contained in the Noise Policy Statement for England ("NPSE"). This is the level of noise exposure above which significant adverse effects on health and quality of life occur and the policy aim is to avoid such levels [33/226 and 227]. The Apex Report sets out two "Feasible Ventilation Strategies" for achieving satisfactory noise levels within the Property, which options both include continuous mechanical ventilation [17/122]. Again, I shall return to this in more detail later in my judgment.

12. There is no dispute in this case that the IP did not wish to install mechanical ventilation at the Property. By way of follow-up to a meeting between Brian Hodges, Planning Consultant for the IP, and Natalie Snowball and Lindsey Wilson, Brian Hodges emailed Natalie Snowball on 08/12/17 to confirm "… the works proposed to satisfactorily attenuate the noise impact from the nearby quarry operations" [18/139]. That email was copied to Lindsey Wilson. He attached a further copy of the Apex Report and referred to the fact that with respect to internal noise levels, subject to appropriate glazing specification and ventilation arrangements, any Significant Observed Adverse Effect Level impacts can be avoided. He then gives details and specification of the existing glazing which had already been installed and which exceeds the example specification for glazing as referred to at Paragraph 2.9 of the Apex Report. He then goes on to deal with ventilation stating as follows:

> "It is confirmed that the trickle vents used on the windows and doors are Greenwoods Slot Vents as referred to at 2.10 of the Noise Assessment Report and satisfy the performance requirements to achieve the acceptable internal noise levels. As detailed in Table 1 of the Noise Assessment Report Summary of minimum facade sound insulation treatment included in assessment calculations, in order to achieve the acceptable internal noise levels it is necessary to remove the slot vents from certain windows in the bedrooms."

He then goes on to list the vents to be removed and confirms that the works would be carried out within two months from the grant of planning permission and would be the subject of a planning condition. There is no reference at all to mechanical ventilation in that email.

13. By further email dated 03/01/2018 Brian Hodges emailed Natalie Snowball (copied to Lindsey Wilson) indicating that in addressing the issue of the reduction of noise levels within the building involving the reduction in the ventilation arrangements, he was conscious of the implications and possible conflict with building regulations. He goes on to confirm that even with the removal of the required vents, the ventilation requirements to meet building regulations are still satisfied, and he encloses an email received from Yorkshire Dales Building Consultancy Ltd to confirm that [19/144]. The enclosed email from Yorkshire Dales Building Consultancy Ltd states as follows

> "Further to our discussion regarding the provision of background ventilation… windows which will need to have the background ventilation openings (trickle vents) sealed in order to better meet the requirement for sound reduction into the building, will not reduce the background ventilation provisions required by building regulations as the provision can be met by the 2nd openings into each of the rooms….[19/147]."

In response to that, by email dated 08/01/2018, Lindsey Wilson replied

> "Thank you for the additional information from Building Control who confirmed that the ventilation arrangements are satisfactory. I therefore confirm that Environmental Health are satisfied with the proposed glazing and ventilation arrangements."

14. On 12/03/18 Lindsey Wilson provided her report to Natalie Snowball. I shall visit the detail of this report when considering the Grounds of challenge. For present purposes it suffices to say that Lindsey Wilson confirmed that the noise assessment recommended certain glazing and ventilation options all entailing the use of mechanical ventilation in order to achieve the recommended noise levels. She notes that the IP does not propose to use mechanical ventilation "….. and has forwarded documentation from Building Control who have confirmed that the current ventilation arrangements are acceptable without the need for mechanical ventilation". She concluded that satisfactory internal noise levels can be achieved through the use of glazing and ventilation arrangements [21/150-151].

15. She also dealt with the question of the Mineral Permission and the need to protect the existing quarry operation. She sets out advice received from North Yorkshire County Council who advised that the conditions set out in the Minerals Permission for the Quarry are the only conditions that they would refer to and are in force until such time as that permission may be subject to a review under the ROMP (i.e. review of minerals permission) regulations or a variation. She confirms that the noise limits contained within the Minerals Permission would not apply to the Property and therefore there would be no breach of the Minerals Permission [21/151].

16. Natalie Snowball prepared a delegated application report dated 15/03/18. It was referred to throughout the proceedings as the Officer's Report and I propose to refer to

it in the same way but using the commonly recognised abbreviation "OR". In the OR, Natalie Snowball set out verbatim the final comments received from Environmental Health [14/94-96]. At paragraphs 6.8 to 6.13 of the OR, Natalie Snowball deals with "Noise and Amenity". The need for noise attenuation measures to overcome the unacceptable noise level was recognised and paragraph 6.11 provides as follows:

> "Environmental Health commented on the agent's mitigation proposals confirming that the glazing specification of the building would appear to meet the requirements of the acoustic report, but raised concern regarding whether sealing up the trickle vents as proposed by the agent would result in unacceptable ventilation in the dwelling. The agent had this checked by a Building Control Inspector who confirmed that the ventilation in the dwelling was acceptable and met the requirements under the Building Regulations" [14/99]

17. The OR notes the Claimant's continuing concern about the very high noise levels generated by the Asphalt Plant and the impact of this on the amenity of the Property, and that the Claimant is concerned that if the planning permission is approved it would have the effect of placing unreasonable restrictions on the Cemex Asphalt Plant operations particularly at night time. Paragraph 6.13 provides as follows:

> "Environmental Health have looked carefully at the proposal, and the concerns of Cemex, and whilst recognising that the proposed dwelling will experience relatively high levels of noise from the [Asphalt Plant], they have concluded that, with the mitigation measures proposed by the agent including removing and blocking up trickle vents in certain windows,……satisfactory noise levels….. inside…… the dwelling can be achieved…….. They have also confirmed that the proposal will not conflict with the mineral planning permission which relates to the operations at [the Quarry] including the roadstone coating plant" [14/99]

18. On 15/03/18 the Permission was granted by the Defendant's planning manager under the Defendant's scheme of delegation. The Permission is subject to a condition requiring the removal or blocking up of trickle vents in certain bedroom windows in the Property. There are no conditions expressly requiring the retention of specified window glazing or requiring the installation of a mechanical ventilation system. The "Informative" on the planning permission states as follows:

> "[The Property] is located in close proximity to [the Quarry], and in particular the [Asphalt Plant], which has permission to operate 24 hours per day if required. The occupants of [the Property] will therefore experience noise from the quarrying operations. By using a combination of glazing and ventilation to the property, guideline internal noise levels in accordance with BS 8233:2014 'Guidance on sound insulation and noise reduction from buildings' can be achieved with windows closed…" [11/83].

19. The Claimant's Minerals Permission is due for review in April 2025 under ROMP. Any review will be required to consider operating conditions alongside any change in circumstances, including the existence of any new dwellings in the vicinity of the Quarry. On the second day of the hearing, the Defendant provided me with a second aerial photograph showing a number of other properties in the vicinity of the quarry, all of which have been developed pursuant to planning permissions granted since the grant of the Minerals Planning Permission in April 2000. I shall refer to this aerial photograph as "AP2". The Claimant asserts that there is a very real risk that conditions could be imposed under ROMP in order to protect the residential amenity of occupants of the Property, and that such conditions could have a serious impact on the quarry operations. They suggest that such conditions could include restrictions on the permitted hours of operation of the Asphalt Plant and/or noise limit restrictions on the level of noise from the Asphalt Plant measured at the Property.

Legal Principles.

20. With the exception of an issue as to the relevance and or weight of evidence provided by the planning officer in relation to the decision-making process, there is no dispute between the parties as to the relevant legal principles. I shall first summarise those areas where there is no dispute as to the legal principles to be applied. This is drawn from the skeleton arguments provided by both Counsel for which I am grateful.

21. Planning applications are required to be determined in accordance with the statutory development plan unless material considerations indicate otherwise (S38(6) Planning and Compulsory Purchase Act 2004 and S70 Town & Country Planning Act 1990) [AB/1 and 2]. Whether or not a consideration is a relevant material consideration is a question of law for the courts: **Tesco Stores Ltd v Secretary of State for the Environment** [1995] 1WLR 759 at 780 [AB/6]. A material consideration is anything which, if taken into account, creates the real possibility that a decision-maker would reach a different conclusion to that which he would reach if he did not take it into account: **R (Watson) v London Borough of Richmond upon Thames** [2013] EWCA Civ 513, per Richards LJ at paragraph 28 [AB/16].

22. Decision-makers are under a duty to have regard to all applicable policy as a material consideration: **Muller Property Group v SSCLG** [2016] EWHC 3323 (Admin) [AB/14]. National Planning Policy is set out in the National Planning Policy Framework ("NPPF") and the National Planning Practice Guidance ("NPPG"). National planning policy is "par excellence a material planning consideration": **R oao Balcombe Frack Free Balcombe Residents v West Sussex CC** [2014] EWHC 4108 (Admin) at paragraph 22 [AB/15]. The weight to be given to a relevant material consideration is a matter of planning judgement. Matters of planning judgement are within the exclusive province of the local planning authority: **Tesco Stores Ltd** (supra).

23. An OR is not susceptible to textual analysis appropriate to the construction of a statute. **Oxton Farms and Samuel Smith Old Brewery v Selby DC** [1997] WL 1106106 [AB/12]); **South Somerset District Council v Secretary of State for Environment** [1993] 1PLR 80. The OR should not be construed as if it was a statutory instrument: **R (Heath and Hampstead Society) v Camden LBC and Vlachos** [2007] 2 P&CR 19. The OR must be considered as a whole, in a straightforward and down-to-earth way, and judicial review based on criticisms of the OR will not normally begin to merit

consideration unless the overall effect of the report significantly misleads the committee about material matters which are left uncorrected before the relevant decision is taken.

24. An OR is to be construed in the knowledge that it is addressed to a knowledgeable readership who may be expected to have a substantial local and background knowledge. There is no obligation for an OR report to set out policy or the statutory test, either in part or in full. **R v Mendip DC ex p Fabre** [2000] 80 P&CR 500 [AB/11]. Policy references should be construed in the context of general reasoning: **Timmins v Gelding BC** [2014] EWHC 654 (Admin) paragraph 83 [AB/17]. An OR is written principally for parties who know what the issues between them are and what evidence and argument has been deployed on those issues. A decision-maker does not need to rehearse every argument relating to each matter and every paragraph: **Seddon Properties v Secretary of State for the Environment** (1981) 42 P&CR 26 [AB/13]. These principles apply equally to a delegated application report.

25. The legal principles set out thus far are not in dispute. In this case Natalie Snowball, the Planning Officer, has provided two Witness Statements setting out, amongst other things, how she asserts she reached her decisions in relation to matters under challenge. It was suggested on behalf of the Claimant that this evidence was inadmissible as amounting to ex post facto rationalisation. As already indicated, I granted permission for both Witness Statements to be adduced in these proceedings, indicating that I would consider relevance and weight at a later point.

26. Having revisited the submissions made to me in relation to these matters, I conclude that there is in fact no real difference between counsel on the law to be applied in the circumstances. The law is helpfully set out by Green J in **Timmins v Gelding BC** [2014] EWHC 654 (Admin) at paragraphs 109 -113 (AB/17). In that case, Green J had regard to certain admissions made in the evidence of the principal planning officer (see paragraphs 47 and 55). Only at paragraphs 109 -113 did he deal with the more general issue of the relevance of witness statement evidence from the decision maker.

27. What is clear, for the reasons listed in paragraph 109 of Green J's judgment, is that there are a number of circumstances in which witness evidence can be properly received from a decision maker. In order to decide whether to accept or reject such evidence, is necessary for the court to identify the basis upon which the impugned statement is relied upon. It is equally clear that it should be rare for a court to accept ex post facto explanations and justifications which risk conflicting with the reasons set out in the decision. In support of that conclusion Green J referred to the decisions of the Court of Appeal in **Ermakov v Westminster City Council** [1995] EWCA Civ 42, and **Lanner Parish Council v the Cornwall Council** [2013] EWCA Civ 1290. Mr Lopez submitted that there is nothing in Miss Snowball's Witness Statement which conflicts with the reasons set out in her OR which formed the basis for the decision in this case. I accept that submission, and I do not understand it to be challenged by Miss Wigley.

28. However, the courts are also reluctant to permit elucidatory statements if produced for the purpose of plugging a gap in the reasoning. Green J refers to this principle at paragraph 113, citing the judgment of Ouseley J in **Ioannou v Secretary of State for Communities and Local Government** [2013] EWHC 3945. In my judgement this is where the issue lies between the parties in this case. Mr Lopez submits that the Witness Statements are not plugging any gap in the reasoning, whereas Miss Wigley submits that is exactly what the Witness Statements are designed to do. Thus, the issue is one

of construing the basis upon which the Witness Statements are relied upon, rather than an issue of law. In those circumstances I shall return to this issue when dealing with the relevant Grounds.

The Grounds

29. The Claimant's grounds of challenge are as follows:

i) Errors as to the scope of the decision making process including as to the ability of the Environmental Health Officer to object to the proposed development and as to the ability of the Defendant to control the development (including to refuse the application). [3/24]

ii) Taking into account an immaterial consideration, namely that the Property is occupied "by a long-standing local family aware of the presence of the adjacent quarry". [3/27]

iii) Failure to have regard to policy and guidance in the PPG relating to the reliance on keeping windows closed as a mitigation strategy. [3/28]

iv) Failure to take into account the impact on the Claimant of the fact that the Minerals Permission is due to be reviewed in 2025 and that, at that time, onerous conditions could be imposed on the Claimant's operation as a result of the grant of the Permission. [3/28]

v) Irrational failure to take into account all relevant considerations when deciding not to include all the conditions recommended by the IP's own noise consultant. [3/29]

Grounds 1 and 2

30. As both Counsel did in their submissions before me, I propose to deal with these two Grounds together. The full Grounds are set out in paragraph 29 above. However, in essence, each of these Grounds amounts to an allegation that the Environmental Health Officer ("EHO") constrained her consideration of the issues in this case by reason of the fact that the development of the Property had already taken place, and that the Property was already occupied. Ground 2 suggests a further and more specific constraint on the decision-making process, namely that the Property was not simply already occupied, but that it was occupied by a long-standing local family aware of the presence of the adjacent quarry. The Claimant asserts that this implies that the family in residence will be more willing to accept the noise from the quarry operations than might be the case for future occupiers, and that it is an improper and irrelevant consideration.

31. In relation to the more general point under Ground 1, Miss Wigley submitted that the EHO has erroneously assumed the principle of residential development in this location has already been accepted and that the options to control or mitigate noise are limited by the fact that the dwelling is complete and occupied. The way the EHO approached the matter is set out verbatim in the OR report at [14/94]. Miss Wigley relies upon the fact that the EHO indicated that if Environmental Health had been consulted initially, it is likely they would have objected to the development. The EHO then states that as

the barn conversion is complete and occupied, she considers it appropriate to assess whether the noise impact can be mitigated and reduced to provide an acceptable level of amenity for the residents and also that the existing quarry operations can be protected.

32. Miss Wigley submitted that there cannot be two different standards of what is acceptable, one to be applied to a planning application for a future development which has not yet been commenced, and one for a property which is already occupied. She submitted that the EHO's assessment has been influenced by the fact of occupation and amounts to an attempt to squeeze the application through on the basis of what the IP wants because the property is already occupied. Whilst the EHO asked for a noise assessment, Miss Wigley pointed to the fact that the scope of that assessment is itself limited by reference to the fact that "…. The building has already been constructed, limiting the potential options for facade sound insulation design". (Apex Report, paragraph 3.2; [17/123]) Miss Wigley submitted that the assessment by the EHO as to what is acceptable is tainted by that approach, in effect adopting a starting point that "There's not much we can do in terms of design and layout". She submitted that the fact that the development has taken place should not preclude a finding that the mitigation needed to deal with noise does involve changes in design or layout.

33. Mr Lopez made the point that it is inevitable that the planning authority will approach this application on the basis of what has been built, precisely because it is an application to regularise the position. He submitted that the planning authority cannot consider the matter in a vacuum. For a future application, the planning authority of necessity considers plans and proposals; for an application to regularise the position, of necessity, they consider what has in fact been built. He submitted that does not mean they have restricted themselves, but simply that they have adopted a practical and sensible starting point. He also pointed out that whilst the EHO had said it was likely they would have objected to the development if consulted at an earlier stage, there is no certainty in that respect.

34. During her submissions in reply to Mr Lopez, I asked Miss Wigley to make the following assumptions in relation to a hypothetical property which was a sensitive receptor for noise. I asked her to assume, if an application for permission had been made prior to development, that it would have been granted with a noise mitigation package including alterations in design and layout. I further asked to assume that for the same property but already built, a perfectly proper package could be achieved to address the noise issues but without involving alterations in design and layout. I suggested to her that in those circumstances it was hard to see how it could be said that a grant of planning permission with the lesser noise package (by which I meant the package without alterations in design and layout) could be challenged on the basis that the local authority should have approached matter as if based on plans rather than actual build. Miss Wigley very properly conceded that would be a proper approach for the planning authority to take, provided it can truly be said that the package of noise measures for the property as built is a proper package, and even if the planning authority might have preferred something different had it been considering the matter at an earlier stage on the basis of plans only.

35. However, Miss Wigley submitted that concession did not invalidate Grounds 1 and 2 in this case. She submitted that the concern behind Grounds 1 and 2 is that the threshold of acceptability in terms of noise mitigation measures has been compromised by the

fact that this is a retrospective application for permission in respect of an occupied dwelling. In my judgment, it follows from that concession, that the true source of complaint here is not that the EHO has imposed improper constraints by considering the property as built, but rather that the package of noise mitigation measures produced is unsatisfactory for other reasons. There is nothing in the EHO's advice to the planning officer, or in the OR to suggest that either the EHO or the planning officer did not understand that this was an application that could be rejected, or that either failed to understand that mitigation measures going beyond those desired by the IP could be imposed if the planning authority thought that was the right thing to do.

36. Turning specifically to Ground 2, Miss Wigley submitted that the EHO's reference to the Property "….being occupied by a long standing local family aware of the presence of the adjacent quarry" ([21/149] and adopted verbatim in the OR [14/94]) shows that the assessment of appropriate noise mitigation measures has been compromised by an assumption that the environment need not be so good for a local family already occupying an unlawful development. Miss Wigley submitted that this was a curious statement to include if it has no relevance to the matter. She submitted it must have been included as factoring into the assessment on the impact on amenity, as in "This family is perhaps more tolerant of noise than others".

37. I agree that it is not immediately obvious why the fact that the Property is occupied by a long standing local family aware of the presence of the adjacent Quarry needs to be mentioned by the EHO or by the planning officer. However, it is a significant leap from the fact of that mention, to the assertion that the effect was that the EHO and the planning officer were effectively treating this as a personal planning application for a family more likely to put up with the noise because they were already occupying and aware of the Quarry. There is absolutely nothing in the documentation to suggest that an error of that sort was made. The statement about the occupation of the family could equally well be proffered to explain why the current occupiers may not have complained about noise, with the implication that future occupiers might. I cannot accept that single sentence evidences a constraint of the type argued for by Miss Wigley. In my judgment, if relevant at all, the issues raised under Grounds 1 and 2 are more relevant to and supportive of the complaint in Ground 3. It follows that I reject Grounds 1 and 2.

Ground 3

38. Ground 3 is the alleged failure to have regard to policy and guidance in the PPG relating to the reliance on keeping windows closed as a mitigation strategy. At the time of the Permission decision, the relevant NPPF was the 2012 version. In this judgment all references to the NPPF are to the 2012 version. Paragraph 123 NPPF provides (so far as relevant) that planning policies and decisions should aim to:

    i) avoid noise from giving rise to significant adverse impacts on health and quality of life as a result of a new development

    ii) recognise that development will often create some noise and existing businesses wanting to develop in continuance of their business should not have unreasonable restrictions put on them because of changes in nearby land uses since they were established.

The above are the first and third bullet points in Paragraph 123 NPPF.

39. The PPG on noise defines the "Significant observed adverse effect level" as "….the level of noise exposure above which significant adverse effects on health and quality-of-life occur" [33/226]. For ease of reference I shall refer to this level as "SOAE" or "SOAE level", as appropriate. In a section entitled "How to recognise when noise could be a concern", there appears the following paragraph:

> "Increasing noise exposure will at some point cause the [SOAE level] boundary to be crossed. Above this level the noise causes a material change in behaviour such as keeping windows closed for most of the time or avoiding certain activities during periods when the noise is present. If the exposure is above this level the planning process should be used to avoid this effect occurring, by use of appropriate mitigation such as by altering the design and layout. Such decisions must be made taking account of the economic and social benefit of the activity causing the noise, but it is undesirable such exposure to be caused." [33/226]

40. The same section contains a table summarising the noise exposure hierarchy, based on the likely average response. Noise that is noticeable and disruptive crosses the SOAE level and should be avoided. This is described as follows

> "…. noise which causes a material change in behaviour and/or attitude, eg avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to changing acoustic character of the area." [33/227]

It should be noted that the most serious noise in the table, described as noticeable and very disruptive, and of unacceptable adverse effect, should be prevented, rather than simply avoided [33/227].

41. The PPG goes on to consider what factors influence whether noise could be a concern, pointing out that the nature of noise is subjective such that there is not a simple relationship between noise levels and the impact on those affected. A number of general factors to consider are listed, followed by more specific factors to consider when relevant, including the following:

> "consideration should also be given to whether adverse internal effects can be completely removed by closing windows and, in the case of new residential development, if the proposed mitigation relies on windows being kept closed most of the time. In both cases a suitable alternative means of ventilation is likely to be necessary. Further information on ventilation can be found in the Building Regulations" [33/228]

42. I now turn to the Apex Report, which is the noise assessment prepared for the IP at the request of the EHO. Apex Acoustics measured weekday noise levels at the facade of the Property exposed to noise from the Quarry and the Asphalt Plant. As requested by the EHO the tests were carried out under British Standard, BS 4142: 2014. Under BS 4142:2014 the methodology is to obtain an initial estimate of the impact of the specific sound by subtracting the measured background sound level from the rating level. Typically, the greater this difference, the greater the magnitude of the impact. A difference of around +10dB or more is likely to be an indication of a significant adverse impact, depending on the context [38/380].

43. The results in the Apex Report indicated a SOAE for both daytime and night time periods. The differences between the background sound level and the rating level were reported by Apex Acoustics as +35dB for daytime, and +43dB for night-time [17/126; table 5]. I have a Witness Statement from Dr Paul Cockcroft, a specialist Acoustic Consultant engaged by the Claimant. He explains that the generally accepted rule is that a change of 10 dB(A) corresponds roughly to halving or doubling the loudness of a sound. The noise level for the night-time assessment, which is recorded as +43dB above the background sound level, would be eight times as loud as the level representing a significant adverse impact. [26/182].

44. The Apex Report proposes two alternative ways to address the noise issue and to meet internal noise criteria. Section 8 of the report deals with "Facade acoustic design to meet internal criteria". The internal criteria referred to are the noise criteria. The report sets out a proposed provision to meet the issues, whilst emphasising that it is not intended to constitute a ventilation strategy design, which is the responsibility of the mechanical engineers [17/127, paragraph 8.7]. In order to achieve the desired internal noise levels, the Apex Report recommends the glazing and ventilator performance specifications shown in the summary table, which is table 1 in the report. The author adds that the current construction design will need to be reviewed to comply with these requirements [17/128, paragraphs 8.24 – 8.25]. Table 1 contains the author's summary of **minimum** facade sound insulation treatment included in the assessment calculations (my emphasis added). Both options set out in Table 1 contain minimum glazing performance requirements, and continuous mechanical ventilation, Option A being for mechanical extraction with the use of a single trickle vent to each of the bedrooms for make-up air, and Option B being frame of continuous mechanical supply and extract with heat recovery, which does not require any trickle ventilators [17/122: Table 1].

45. Paragraph 2.8 of the Apex Report refers to the proposals in Table 1 as "…a set of minimum glazing and ventilation strategy options, interpreted from Approved Document F (AD-F)" [17/121]. The summary goes on to refer to the glazing options and concludes at paragraph 2.13 as follows: "On this basis it is considered that any [SOAE Level] impacts on internal noise levels are avoided…" [17/121].

46. As already mentioned, the proposal includes glazing options, and paragraph 8.13 of the Apex Report refers to the acoustic performance of the proposed glazing. There is no dispute in this case that the glazing currently installed at the Property meets the acoustic performance recommended. The Apex Report continues at paragraph 8.14 (still under the heading of "Glazing") "Opening windows may be acceptable to provide purge ventilation; all opening lights should be well fitted with compressible seals."

47. Miss Wigley submitted that there is a nexus between mechanical ventilation and purge ventilation, a nexus which she submitted is recognised both in the BS 4142:2014 and in Building Regulations. In BS 4142:2014 in Section 11 on "Assessment of the impacts" [of sound], amongst the pertinent factors to be taken into consideration is the following:

> "The sensitivity of the receptor and whether dwellings or other premises used for residential purposes will already incorporate design matters that secure good internal and/or outdoor acoustic conditions, such as:
>
> i) facade insulation treatment;
>
> ii) ventilation and/or cooling that will reduce the need to have windows open so as to provide rapid or purge ventilation; and
>
> iii) acoustic screening" [38/381]

48. (AD)-F of the 2010 Building Regulations deals with Ventilation. The "Key terms" are set out in Section 3 and include the following of relevance to this case;

> "***Background ventilator*** is a small **ventilation opening** designed to provide controllable ***whole building ventilation***.
>
> ***Purge ventilation*** is manually controlled ventilation of rooms or spaces at a relatively high rate to rapidly dilute pollutants and/or water vapour. Purge ventilation may be provided by natural means (e.g. an openable window) or by mechanical means (e.g. a fan).
>
> ***Whole building ventilation*** (general ventilation) is nominally continuous ventilation of rooms or spaces at a relatively low rate to dilute and remove pollutants and water vapour not removed by operation of ***extract ventilation, purge ventilation*** or ***infiltration***, as well as supplying outdoor air into the building. For an individual dwelling this is referred to as ***'whole dwelling ventilation'***." [36/244-245]

49. Paragraph 5.7 of (A-D) F provides as follows:

> "***Purge ventilation*** provision is required in each ***habitable room*****…..** Normally, openable windows or doors can provide this function …, otherwise a mechanical extract system should be provided…." [36/257]

Miss Wigley also referred me to Table 5.2a where there is reference again to the need for purge ventilation for each habitable room, where it is also noted "There may be practical difficulties in achieving this (e.g. if unable to open a window due to excessive noise from outside), and "As an alternative… a mechanical fan…. could be used" [36/261]. I note that the same wording is repeated in each of Tables 5.2b [36/263], 5.2c

[36/265] and 5.2d [36/266], with the addition, in the latter two cases, of an indication that expert advice should be sought in such situations.

50. Miss Wigley submitted that it is clear from the above matters that purge ventilation is not a binary matter. Where there is another form of ventilation, the need for purge ventilation will be reduced. She pointed out that the acknowledgement in the Apex Report that opening windows may be acceptable to provide purge ventilation is against a background of the recommendations in that report that a mechanical ventilation system is also needed. She further submitted that the alternative ventilation strategy to opening windows is a mechanical system (per Paragraph 5.7 (A-D) F set out in paragraph 48 above), and that there is no question of trickle vents alone providing this function. She also referred me to paragraphs 4.15 and 4.16 (A-D) F. It is clear from paragraph 4.15 that purge ventilation is ventilation of a separate type to whole building ventilation. Furthermore, purge ventilation is intermittent and required only to aid the removal of high concentrations of pollutants and water vapour released from occasional activities such as painting and decorating or accidental releases such as smoke from burnt food or spillage of water. It is noted that purge ventilation provisions may also be used to improve thermal comfort although this is not controlled under the Building Regulations [36/251, paragraph 4.15].

51. In paragraph 4.16 there is reference to trickle ventilators being used for whole dwelling ventilation and windows for purge ventilation [36/251]. Miss Wigley submitted that trickle vents are plainly for useful background ventilation of the whole building and are not a substitute for purge ventilation by the opening of windows and/or the use of a mechanical system.

52. As set out in paragraphs 12 -13 above, the IP did not wish to install mechanical ventilation and there were discussions between the EHO, the planning officer and the IP's agent concerning ventilation. The agent provided the email [18/147] from the building surveyor set out in paragraph 13 above. Miss Wigley submitted that discussion relates entirely to background ventilation, or whole dwelling ventilation and that no consideration was given to purge ventilation and whether purge ventilation would be adequate, given that mechanical ventilation was not being provided as recommended in the Apex Report.

53. Miss Wigley very properly accepted that the fact that there is no express reference by the EHO or the OR to the PPG is not, without more, a ground for challenging the reports of either officer. She submitted, however, that it must be clear that the issues concerned have been fully covered. There is no dispute between the parties that the PPG is a significant material consideration because it is government policy. The application of the policy is of course a matter of planning judgement and depends upon the facts of the case. The significance of the relevant policy will also depend on the facts of the case. Miss Wigley submitted that in this case the PPG is central, particularly as the noise mitigation relied upon in this case is closed windows, when the PPG clear policy is to try and avoid this. She pointed to the fact that there is no reference to any of these factors in the advice of the EHO or in the OR. She submitted that the OR shows that the planning officer placed total reliance on the EHO response on these matters as the OR sets out verbatim the EHO's final recommendations. Miss Wigley submitted there is no evidence at all that the EHO has considered the applicability of the PPG and, in particular, the desirability of avoiding relying on windows being closed to address the noise issues. She submits that the EHO has in effect cherry picked from the Apex

Report, and simply relied upon the email from the building surveyor (wrongly described as Building Control by the EHO but nothing turns on this) which "…… confirmed that the current ventilation arrangements are acceptable without the need for mechanical ventilation", and that they met the Requirements under the Building Regulations.

54. All the e-mail from the Building Surveyor does is to confirm that the sealing of certain trickle vents to assist with reducing sound in the building will not reduce the background ventilation provisions required by Building Regulations. Plainly, that email does not address in any way at all, the impact of noise and the proposed control of noise into the building by the use of closed windows. It simply deals with the adequacy of background ventilation. Obviously, it cannot address, and does not purport to address, how the residents of the Property might be affected by noise if, for example, they wish to keep windows open for lengthy periods of time during hot weather. Indeed, the Building Regulations themselves make it clear that they do not control the use of purge ventilation for thermal comfort (see paragraph 49 above). Miss Wigley relies upon the fact that nowhere is there any indication that the EHO or the planning officer considered that PPG advises that the SOAE level identified in the noise assessment, (a document expressly asked for by the EHO), should be avoided and is undesirable. She acknowledged that this is obviously not an absolute requirement, but it is nevertheless relevant policy and the council is required to have regard to it and take it into account. She submitted that the council should either have ensured that the mitigation measures overcame or avoided the SOAE level, or it should have been balanced against other considerations and an explanation given as to why it was not to be avoided in this case. She submitted that all the guidance in the PPG (quoted at paragraphs 39 – 41 above) contains a link between mechanical ventilation and the need to open windows, but no one at the council considered this.

55. She submitted that the EHO and the OR both state that internal noise levels can be met with glazing and the windows being closed, without any consideration as to the need for mechanical ventilation. Whilst the Apex Report allows for windows to be used for purge ventilation, it does so in the context of and contingent upon the provision of alternative mechanical ventilation, something Miss Wigley submitted, which has been completely missed by the council officers both in construing the Apex Report and in failing to consider the guidance in the PPG.

56. On behalf of the Council, Mr Lopez submitted that the treatment of the noise issues has been perfectly properly carried out and is consistent with the PPG guidance. He pointed out that both the NPPF and PPG indicate that planning decisions should aim to avoid noise from giving rise to significant adverse impacts, but neither is prescriptive. He further submitted that there is no rule that purging must be avoided and, therefore, that it is a matter of planning judgement for the decision taker to consider the acceptability of purging. There is nothing in the PPG identifying an acceptable degree of purging, subject to the issue of noise. Mr Lopez submitted that it is possible to depart from the guidance without their necessarily being an error. That is plainly right, and Miss Wigley accepted that in her submissions.

57. Mr Lopez submitted that it is plain on the face of her report dated 12 March 2018 that the EHO has carried out her own independent assessment and concluded that some purging would be acceptable. He submitted this is a matter of planning judgement and not open to challenge. The passage in question appears in the EHO report at [21/150]

and is repeated verbatim in the OR at [14/94]. I shall refer to the passage from the OR as this was the passage addressed by Mr Lopez in his submissions. Under the heading "Impact on amenity" there appears the following:

> "BS 4142 recognises that not all adverse impacts will lead to complaints and it's not intended for the assessment of nuisance. [The Property] is occupied by a long standing local family aware of the presence of the adjacent quarry. BS 4142 also allow scope look at absolute noise levels rather than just relative levels and for other standards such as BS 8233 to be considered. It was therefore recommended that the applicant considered BS 8233:2014 'Guidance on sound insulation and noise reduction for buildings' as part of their assessment in order to see whether the recommended guideline indoor and outdoor noise levels can be achieved. The report shows that guideline indoor levels can be achieved with a combination of glazing and ventilation and that some areas of the garden can offer an acceptable amenity space in accordance with BS 8233.
>
> With regards to internal noise levels, the noise assessment recommended certain glazing and ventilation options all entailing the use of mechanical ventilation in order to achieve the recommended noise levels. However, the applicant does not propose to use mechanical ventilation and has forwarded documentation from Building Control who have confirmed that the current ventilation arrangements are acceptable without the need for mechanical ventilation. I note the view of Cemex that windows should be sealed shut to protect residents, however, I consider that the option for windows to be openable for the purposes of purge ventilation to be acceptable." [14/94]

58. Mr Lopez emphasised the use of the word "However". He submitted that marks a clear transition. He submitted that prior to the transition the report shows that the EHO was aware of the contents of the Apex Report. The transition shows that the EHO has moved on to make an assessment based on her knowledge that the IP did not want to use mechanical ventilation. He submitted the transition represented by the word "However" supports the fact that there has been a separate assessment by the EHO. He submitted the EHO has stood back, with the knowledge and understanding that mechanical ventilation would not be used but has concluded in her own assessment that purging was an acceptable way of addressing matters. He submitted that relates not just to the issue of ventilation, but also to the issue of noise.

59. Mr Lopez reminded me that the Claimant's challenge on this Ground is not a reasons challenge, or an irrationality challenge. He submitted that the Claimant's challenge is that the EHO has either forgotten the fact that the IP did not want mechanical ventilation or has forgotten that the Apex report was all prefaced on mechanical ventilation. In my judgment that is not an accurate statement of the Claimant's challenge. The challenge is a failure to have regard to policy and guidance in the PPG relating to the reliance on keeping windows closed as a mitigation strategy.

60. Miss Wigley accepted that Ground 3 is neither a reasons nor an irrationality challenge. Her challenge is that the policy and guidance has simply not been considered, and because of that there are no reasons given for departing from policy, and thus there are no reasons to challenge. Further there is no irrationality challenge which could only follow from an assessment which had been undertaken. The whole thrust of the Claimant's submissions in support of Ground 3 is that there is no evidence of an independent assessment or any independent calculations carried out by the EHO.

61. Mr Lopez submitted that the EHO was clearly aware of the Apex Report, a report which gave options, but which was not saying these are the only options. He submitted it was therefore open to the EHO to depart from the options proposed in the Apex Report, and to say why she had done so. He submitted she did not need to go into figures and that she had everything in front of her to entitle her to make the judgement she made. He submitted it was completely unreal to suggest that the EHO had not exercised her own judgement and made a wholly separate assessment, separate from the Apex Report. He submitted there is nothing in the EHO's report which signposts back to the Apex Report, and he refuted the suggestion put forward on behalf the Claimant that the EHO has effectively cherry picked from the Apex Report, taking background ventilation alone and not considering the ventilation strategy as a whole.

62. Whilst I accept that the EHO has clearly recognised that the IP did not wish to use mechanical ventilation, I am wholly unpersuaded by the suggestion that the EHO has necessarily carried out a wholly separate and independent assessment. The word "however", is at the beginning of a sentence which goes on to place reliance on the documentation described as being from Building Control and relies in that sentence on the fact that Building Control have confirmed that the current ventilation arrangements are acceptable without the need for mechanical ventilation. That is of course a reference to the email set out in paragraph 13 above. As I have already said, that email was dealing simply with whether the background ventilation provision after the sealing of certain trickle vents satisfied the ventilation requirements in the Building Regulations. In my judgement the straightforward reading of the sentence commencing with the word "however" is that the provision of the information from Building Control is such that it can properly be concluded that mechanical ventilation is not needed. The e-mail from "Building Control" [19/147; quoted at paragraph 13 above] refers to the provision of background ventilation. As already set out, the Building Regulations address ventilation, not noise in this respect.

63. Mr Lopez made much of the fact that the EHO is a scientific officer. He asserted that she is just as much an expert as Dr Cockcroft, the Claimant's acoustic expert, although there is no evidence as to the EHO's qualifications. In any event, whatever her qualifications, they do not protect her from the possibility of making a mistake, any more than the professional qualifications of Dr Cockcroft, or indeed the qualifications of any of the lawyers in this case, protect each or any of them from the possibility of making mistakes. Human beings all make mistakes. Mr Lopez repeatedly submitted that it was unreal to suggest that the EHO had not made her own independent assessment taking into account not just ventilation, but also noise impact. Miss Wigley suggested that the reason he kept relying on something being unreal, was precisely because he had no other point to put forward.

64. The court is plainly not constrained to assume it is unreal that officers may not have carried out their functions properly. If that were the position, the jurisprudence as to the

need for reasons for decisions to be provided would be wholly otiose. Indeed, there would be no need for this court to have a reviewing function, as it would be obliged to assume that all officers had done what they were required to do, and had done it properly, whether or not they had signposted that fact in the relevant documents.

65. I accept Miss Wigley's submissions that nowhere in the EHO's report or the OR is there any indication that, having set aside the provision of mechanical ventilation as recommended as a minimum in the Apex Report, the EHO then made a separate assessment of her own as to the noise impacts in the light of the policy guidance as to the undesirability of managing noise by keeping windows closed. Of course, it is not an absolute requirement, but it is relevant policy which the Defendant is required to have regard to and to take into account. In those circumstances, the Defendant should have ensured either that appropriate mitigation measures were in place designed to avoid the SOAE level for internal noise at the Property or have taken the policy into account and balanced it against other considerations to justify any position which did not seek to avoid the SOAE level internally. I recognise this is not a reasons challenge, but the absence of any reasons or explanation designed to show why it is appropriate in this case (if indeed it is) to allow a scheme of glazing and background ventilation which does not avoid the SOAE level, particularly in the face of the Apex Report setting out minimum requirements to achieve that and which are being expressly rejected for the purposes of the Permission application, suggests to me that no such independent assessment was carried out. Alternatively, if it was carried out, in my judgment, it is not clear that it was taking the documents at face value, and recognising they are addressed to a knowledgeable readership, and must not be read in an over legalistic way. In my judgment, the Claimants challenge on Ground 3 is made out.

66. I have before me two Witness Statements from Natalie Snowball [28/198-204] and [29/205-209]. Both are addressed to issues arising under Grounds 4 and 5. Unsurprisingly, Natalie Snowball does not address the reasoning in relation to Ground 3 as she adopts the advice of the EHO. There is no Witness Statement from the EHO, Lindsey Wilson. I regard that as unsurprising. Any evidence which she might purport to give on this subject would, of necessity, involve plugging gaps given the findings which I have made.

67. By Section 31(2A) Senior Courts Act 1981 the High Court must refuse to grant relief on an application for judicial review if it appears to the court to be highly likely that the outcome for the applicant would not have been substantially different if the conduct complained of had not occurred. I do not consider Section 31(2A) assists me in this case. In my judgment I cannot possibly conclude that the outcome for the applicant would not have been substantially different if the conduct complained of had not occurred. Had the PPG guidance been considered in the context of the need to avoid closing windows as a way of controlling noise, it might be the case that mechanical ventilation would have been required as recommended in the Apex Report. Equally, some other form of mitigation might have been proposed. These are matters of planning judgement, properly within the sphere of those qualified to make these decisions, and not matters upon which I could or should make any judgment.

68. It follows that Ground 3 succeeds and the planning permission in this case must be quashed. Whilst that is sufficient to dispose of the proceedings, I should plainly also consider Grounds 4 and 5 in this judgment.

Ground 4

69. Ground 4 is the alleged failure to take into account the impact on the claimant of the fact that the minerals permission is due to be reviewed in 2025 and that, at that time, onerous conditions could be imposed on the claimant's operation as a result of the [grant of planning] permission. [3/28]

70. In relation to noise effects and existing businesses, the PPG states as follows

> "The potential effect of a new residential development being located close to an existing business that gives rise to noise should be carefully considered. This is because existing noise levels from the business even if intermittent (for example, a live music venue) may be regarded as unacceptable by the new residents and subject to enforcement action. To help avoid such instances, appropriate mitigation should be considered, including optimising the sound insulation provided by the new developments building envelope. In the case of an established business, the policy set out in the third bullet of paragraph 123 of the Framework should be followed." [33/227]

The third bullet of paragraph 123 of the NPPF is set out in paragraph 38 above.

71. There is no dispute in this case that the EHO properly recognised at the outset that she had to consider the potential impact on the quarry operations of a grant of planning permission for the Property. This is clear from her initial response of 23 May 2017 as set out in paragraph 10 above. The Claimant relies on the fact that the existing Minerals Permission requires that noise from the Claimant's mineral operations shall not exceed a noise limit of 55dB (A) for the two properties named in condition 17 [23/167]. As is clear from AP1, the two named properties are 1131m and 652m from the Asphalt Plant. The Property is only 64m from the Asphalt Plant. Miss Wigley submitted that the fact that such conditions were considered necessary to protect the residential amenity in relation to those two dwellings, indicates a strong likelihood that a similar condition would be considered necessary in relation to the Property, at which the effects on residents are likely to be more acute given how much closer it is to the Asphalt Plant. The Claimants rely upon the fact that the Apex Report demonstrates that if such a condition were imposed in relation to the Property, it would be immediately breached.

72. In his Witness Statements ([25/172] and [27/194]) Mark Kelly, the Claimant's Planning Manager, gives detailed evidence as to the likely impact on the Claimant's business of the imposition of such a planning condition. Mr Lopez correctly makes the point that none of that evidence was before the planning authority at the time the decision was made. The objections before the planning authority made clear in general terms that there was the potential for adverse effect on the Claimant's business if the quarry operations were restrained in the future, but without the level of detail given in Mr Kelly's Witness Statements. Those statements give details as to potential impacts on the viability of the operation, and as a result the possible loss of employment for local people, and possible loss of business rates income for the Defendant. Mr Lopez invites me to disregard that detailed evidence on the basis that none of it was before the Council at the time it made the decision. In my judgement that submission must be correct. I should approach this on the basis of the information that was before the Council at the

time it made its decision. What was before the Council, was the Claimant's concerns that its business might be restricted by planning conditions on the Minerals Permission in the future.

73. The Claimant's case is that the Council has failed to consider the risk that the Claimant's business could be the subject of unreasonable restrictions by reason of conditions imposed at ROMP as a result of changes in nearby land uses, namely the grant of a residential planning permission for the Property.

74. There is no dispute that North Yorkshire County Council (which is the minerals planning authority) confirmed that the grant of planning permission for residential use at the Property would not amount to a breach of the existing minerals permission. The following appears in the OR, (having been taken verbatim from the EHO's report at [21/151]):

> "Throughout this application I have been aware of the need to protect the existing quarry. I am also aware of the concerns of Cemex in this regard. I have therefore made enquiries with North Yorkshire County Council Mineral Planning with regards to the existing permissions for [the Quarry] and whether any noise limits would be applied to [the Property]. The reply from North Yorkshire County Council mineral planning advises that the conditions set out under the permission are the only conditions that they would refer to and enforce until such time that the permission may be subject to a review under the ROMP regulations or a variation, which at the present time is not applicable. They advised that the authority cannot impose new conditions which would consider any new development which may be nearer to [the Quarry] outside of these remits. The current planning permission names 2 properties were existing noise conditions apply. [The Property] is not one of those named" [14/95]

75. The Claimant's case is that neither the EHO nor the planning officer have considered the potential for the noise conditions to be expanded to include the Property on a review of the ROMP conditions, and that the risk of that happening and its consequences were not evaluated, assessed or taken into account by the Defendant.

76. The first point which Mr Lopez took in reply to this Ground was a highly technical point and one which I consider lacks merit. He referred me to the Order granting permission on this Ground, where John Howell QC sitting as a Deputy High Court Judge acknowledged that the planning officers considered the effect of the grant of planning permission on the Claimant's business pending the review of the Claimant's planning permission. Mr Lopez submitted that it follows from that that the Council has acted properly in relation to this issue in respect of the period between now and the ROMP review in 2025. He submitted that it would be open to the Defendant Council to issue a Noise Abatement Notice at any time between now and 2025, and that such a notice would address the same species of noise as would be addressed at a ROMP review. In the light of the permission order, Mr Lopez pointed out that the claimant could not argue that it would be wrong for the Council to issue an Abatement Notice at any stage during that period. He submitted that there was no qualitative difference

between an assessment of an actionable noise subject to an Abatement Notice, and the tasks to be undertaken in relation to noise on a ROMP review. Since the result of an Abatement Notice might be to require the quarrying activity to be restricted in some way in order to bring about a satisfactory noise scenario, and given that this could be done legitimately prior to the ROMP review, Mr Lopez submitted there is no qualitative distinction between that which the Claimant cannot challenge (i.e. a Noise Abatement Notice), and that which the Claimant seeks to challenge (the impact of the ROMP review).

77. Whilst I accept that the scope of an Abatement Notice would target the same noise complaint that might be of concern at ROMP, I do not accept that the two procedures necessarily produce the same result. By way of example, if the Defendant received a noise complaint, it would be entitled to consider, amongst other things, whether the issues could be properly addressed by requiring occupants of the Property to keep certain windows closed. A ROMP review is directed solely to the Claimant's operations, and not the actions of the occupants of any noise sensitive receptor. In any event, the issue here is whether the Council failed to have regard to the possible effects on the Claimant's business of a ROMP review occurring after the grant of the Permission in this case.

78. Mr Lopez' next point is that this is a wholly speculative complaint. He referred me to AP2 which shows the locations of a further four dwellings which have received planning consent since the Mineral Permission granted to the Claimant in this case. Notwithstanding those four dwellings, he pointed to the fact that the Minerals Planning Authority (the "MPA") has not caused a review to take place notwithstanding the erection of those further dwellings. He relied on the letter of North Yorkshire County Council dated 24 February 2016 which postpones the ROMP review until 3 April 2025 [25/171]. He submitted, therefore, that the indications are that the Quarry is not an issue in noise terms. On the contrary, he suggests this is good news, reflecting the way the Quarry is operating with regards to all those dwellings. Whilst Mr Lopez accepted that he cannot say that the MPA would not impose a condition, he submitted that the Claimant cannot say that the MPA would impose condition in the light of the above, and that the Claimant's Ground is purely speculative. He pointed out it is not for the EHO or the planning officer to crystal ball gaze or constrain the ROMP review. He submitted, therefore, that there was nothing more that the EHO or planning officer could do other than have regard to the fact that the powers are available to the MPA at the ROMP review.

79. In response to these points, Miss Wigley pointed out that the postponement of the ROMP review to 2025 is no indication that the MPA is content with the impact of noise in relation to the further dwellings which have been built since the Minerals Permission was granted in April 2000. AP2 was produced by the Defendant on the second day of the hearing, and whilst Miss Wigley has not objected to it, she pointed to the fact that the Claimant has had no opportunity to check the circumstances of the planning applications in respect of the four dwellings in question. She also pointed to the fact that they are all much further away from the Asphalt Plant than the Property is.

80. More significantly, she drew my attention to the statutory provisions which have resulted in the postponement of the ROMP review until April 2025. It is clear from the letter from North Yorkshire County Council, that the Claimant had requested a postponement of the periodic review of their mineral permission until 03/04/2025. It is

equally clear that the planning authority had not responded to that within three months from the date of the receipt of the request. The letter therefore confirms that in accordance with Schedules 13 and 14 of the Environment Act 1995 the request for postponement is approved. I have the relevant provisions at AB3. By paragraph 7(1) of Schedule 13 Environment Act 1995, a company such as the Claimant may apply to the Mineral Planning Authority for the postponement of the date specified for a first review. By paragraph 7(10), where the Mineral Planning Authority has not given notice of a decision on such an application within a period of three months, the Authority shall be treated as having (i) agreed to the specified date being postponed and (ii) having determined that date should be substituted as the date for the next review. Miss Wigley made the point that the postponement of the ROMP review was therefore automatic as a result of the failure of North Yorkshire County Council to respond to the Claimant's request for it to be postponed, and does not represent any substantive consideration of the merits of the position, and the noise environment in particular. She submitted that the fact that there are other properties which have been built in the vicinity has no relevance as North Yorkshire County Council has clearly not undertaken any substantive consideration in relation to the Minerals Permission since the relevant dwellings were erected or converted.

81. Miss Wigley submitted that it is not mere speculation to look at the existing Condition 17 in the Minerals Permission, and to recognise that the concerns which led to the imposition of that condition are likely to feed into a similar condition in relation to the Property. She submitted it is not outlandish speculation to consider that a similar condition would be imposed in relation to the Property which is very much closer to the Asphalt Plant than the two properties named in Condition 17. She submitted it is a clear indication of the MPA's stance and what the MPA considers necessary to protect the residential amenity near the Asphalt Plant. I accept that submission. In my judgment that is a possibility that could, and should, have been considered when considering this planning application, and the impact for Cemex under the third bullet point of Paragraph 123 of the NPPF.

82. Mr Lopez' next point related to a further document which was provided to me on the second day of the hearing. This is an elevation plan showing the elevations of the Property, with various windows shaded in yellow. This was referred to at the hearing as the yellow window plan. I shall refer to this as the "YWP", as shorthand for the yellow window plan. This was simply handed to me and there is no evidence as to its provenance. Miss Wigley accepted that the yellow highlighting on the YWP accurately indicates the windows which were required to have the trickle vents permanently closed as part of the planning permission. That is all she accepts in relation to the YWP. Mr Lopez told me that this was a document that Miss Snowball had in front of her when considering the issues in this case, but there is no evidence to support that.

83. Mr Lopez relied upon the YWP as showing that the blocked up trickle vents are all within the elevations fronting the Quarry. The property is set at an angle and both the north-west and south-west elevations front the Quarry. Within each of the habitable bedrooms, there are windows on other elevations away from the Quarry where the trickle vents are not blocked up. Mr Lopez submitted that there is no evidence that opening of windows in those elevations would cause an actionable noise event. He submitted, therefore, that the EHO was entitled to exercise her own planning judgement

and to conclude that there would be no noise issues on the elevations away from the Quarry, and that there is no merit in Ground 4.

84. Miss Wigley submitted that Mr Lopez had made an enormous leap from the Apex Report to the submission that because one window in each bedroom was not required to have the trickle vent removed, it meant that window could be opened without any unacceptable noise effects. In support of this she pointed to calculations in the Apex Report. In particular, she drew my attention to the fact that at Paragraph 8.21 in the section dealing with "calculated internal noise levels", the cumulative impact is considered through all windows to the room under assessment. In the table at Paragraph 8.24, the upper limit of internal noise levels in the first column is right up against the limit and is calculated quite clearly after mitigation levels including both the glazing and mechanical ventilation. The fact that those items are included is made clear in Paragraph 8.25. In those circumstances, Miss Wigley submitted that Mr Lopez cannot assert that it is fine to open the non-highlighted windows on the YWP without there being any unacceptable noise. I accept that submission.

85. Further, and in any event, Miss Wigley submitted that there is no evidence at all that any of this was considered at the time by the EHO. Miss Wigley made the points again about trickle vents being background ventilation and not as a substitute for purge ventilation, a submission I have already dealt with and accepted.

86. I accept the points made by Mr Lopez that there is no power or option for the EHO to second guess what the MPA would do. Mr Lopez suggested that when the MPA, North Yorkshire County Council, replied to the EHO indicating that there would be no breach of the current planning restrictions, there is nothing to suggest that the MPA was not also forward-looking about conditions it might impose. He pointed to the fact that North Yorkshire County Council did not object to the grant of planning permission in this case. It does not seem to me to be necessarily within the remit of Yorkshire County Council to object to the planning application. However, what clearly was within the remit of the EHO and the Defendant was to consider the third bullet point in NPPF paragraph 123, and to recognise that the Claimant should not have unreasonable restrictions put on them because of changes in nearby land uses since the business was established.

87. I recognise that there will be matters of planning judgement in considering what restrictions might be imposed in the future, and whether such restrictions might amount to unreasonable restrictions on the Claimant in the future. If it was clear from the documents that these matters had been considered, that would be one thing. However, in my judgment, whilst the documents do show that the EHO, and through her the planning officer, recognised that the quarry business needed protection, I am not satisfied that any consideration was given to the likely impact that the grant of planning permission for the Property might have on a ROMP review. Whilst in her Witness Statement Natalie Snowball asserts that all of these matters were considered, I am of the view that amounts to evidence seeking to plug the gaps in the decision-making process. I regard it as of no assistance to me.

88. Furthermore, Natalie Snowball's evidence is to the effect that the future position on a ROMP review was considered in the context of all the information before her including "… the adequacy of the proposed development in noise impacts and attenuation terms…" [28/199, paragraph 5]. Given the conclusions I have reached in relation to

Ground 3, and, in particular, the failure to have regard to the PPG relating to the reliance on keeping windows closed as a mitigation strategy, it follows, in my judgment, that failure would inevitably also feed through into the assessment which Natalie Snowball alleges she has undertaken. I recognise, as Mr Lopez repeatedly reminded me, that this is not a reasons challenge or an irrationality challenge. I equally appreciate that the comment I have made in this paragraph goes to the issue of reasons, but those being reasons which are provided ex post facto in the form of a Witness Statement. Had those reasons been provided in the OR, no doubt they would have been the subject of a challenge. As with Ground 3, there is no reasons challenge here precisely because the challenge is that nowhere in the OR is there any indication that the issues have been considered.

89. In my judgement Ground 4 is also made out. I am satisfied that the EHO set out to consider not only the current position as regards the Minerals Permission, but also to consider the future impact on the Quarry. However, based on the EHO reports and the OR, there is nothing to suggest that any consideration was in fact given as to whether a condition similar to Condition 17 of the Minerals Permission was likely to be imposed at ROMP, or that any consideration was given as to the risks such a condition would pose to the future operation of the Claimant's business, all matters which should have been considered as part of the consideration under paragraph 123 NPPF. I further note, in passing, that the EHO mentioned the 55dB being a limit in a fairly old permission and the absence of a tighter night time condition such as 42dB [38/440]. This formed no part of the Claimant's case before me and forms no part of my decision in this matter, but it appears nowhere in the consideration of these issues.

90. In relation to Ground 4, again I do not consider Section 31(2A) Senior Courts Act 1981 assists me in this case. In my judgment I cannot possibly conclude that the outcome for the applicant would not have been substantially different if the conduct complained of had not occurred. Had the likely future impact of a similar planning restriction to Condition 17 of the Minerals Permission been considered, it might be the case that this would have informed the adequacy of proposed noise mitigation measures. It could be the case that mechanical ventilation might have been required as recommended in the Apex Report, or even that mitigation going to the physical building and/or it's layout might have been considered. It is even possible that the conclusion might have been reached that the grant of planning permission would not be appropriate. These are all matters of planning judgement, properly within the sphere of those qualified to make these decisions, and not matters upon which I could or should make any judgment of my own.

Ground 5

91. Ground 5 is the alleged irrational failure to take into account all relevant considerations when deciding not to include all the conditions recommended by the IP's own noise consultant.

92. The Claimant's case is that the conditions imposed in the Permission should have included conditions to ensure that the standard of glazing for the future was maintained and that those windows where the trickle vents were to be blocked up, could not have trickle vents reintroduced. The Claimant's case is that having required these factors to be included as noise mitigating measures, it is irrational not to include conditions in the Permission to ensure the mitigation measures are retained in place for the future.

Ground 5 is drafted to include an irrationality challenge for the failure to include mechanical ventilation as a condition, but it seems to me that more properly forms part of Ground 3. This Ground is really based on the premise that even if the Permission was unobjectionable on the application of PPG, nevertheless there is still a challenge based on the failure to incorporate appropriate conditions. The oral submissions were based on the failure to include conditions relating to glazing and the retention of the blocked trickle vents.

93. Miss Wigley submitted that there was no consideration by the Council as to the retention of the specified glazing properties for the windows, nothing to keep the removal of the trickle vents in the yellow highlighted windows in place, and nothing to prevent the introduction of new trickle vents. She submitted that the EHO's report and the OR are silent on these matters, showing that there has been no consideration as to how to secure that these requirements stay in place. She submitted that looking at the documents there is a clear lacuna in failing to ensure that the mitigation measures endure.

94. The Defendant seeks to rely on Condition 3 of the Permission which abrogates the usual permitted development rights, and requires what would otherwise be permitted development to be the subject of a formal application for planning permission. The reason given for that Condition is that it is in the interests of the appearance of the proposed development and to reserve the rights of the local planning authority with regard to those matters [11/80]]. Natalie Snowball deals with this in her Second Witness Statement where she asserts that any work involving the replacement of the existing windows or glazing, the introduction of new opening trickle vents, the removal of blocked up trickle vents, or the insertion of new windows not incorporating necessary noise mitigation measures required under condition 4 would require there to be a full planning application by reason of Condition 3 of the Permission. She expresses her opinion that any such works would materially affect the external appearance of the building, and so would amount to development. She asserts that the question of whether proposed works would materially affect the external appearance of the building is a question of planning judgement [29/206; paragraphs 6-12]. In reliance on that, Mr Lopez submitted that Ground 5 is wholly misconceived and must fail.

95. In response to this Miss Wigley submitted that a change of the windows would not amount to development. She submitted that I should disregard the evidence of Natalie Snowball on these issues for the following reasons. Firstly, she submitted that this is ex post facto rationalisation which should not be permitted. Secondly, she relied upon the fact that the reasons now suggested are different from the stated reason on the planning decision notice which relates to the appearance of the building and has nothing to do with noise mitigation measures. She further pointed to the fact that whilst in her first Witness Statement Natalie Snowball does rely on Condition 3 of the Permission, nowhere in that statement does she explain how she considers replacement windows would be development in any event. Miss Wigley submitted that Miss Snowball's thought processes were eked out over the course of the Witness Statements and are inherently unreliable. None of these reasons is given in the reports and she invited me to disregard them.

96. In response to this Mr Lopez submitted that these are quintessentially matters of planning judgement. He also pointed to Miss Snowball's evidence that the trickle vents had been permanently blocked and cannot be reopened. He denied that Condition 3 was

limited solely to the appearance of the building, pointing to the second part of Condition 3 which refers to the reservation of the relevant rights to the local planning authority with regard to the permitted development matters. I accept that submission in relation to the reasons given for the condition. He submitted that if I accept that submission, there is no reason to attach less weight to the evidence of Miss Snowball on this matter.

97. It is right that I should record that I mentioned that I was aware, from sitting on other cases, that not all planning officers necessarily regard a change of windows as amounting to development. I therefore suggested that a future planning officer might not take the same view as Miss Snowball as to whether windows amounted to development and whether Condition 3 applied. In response to that Mr Lopez pointed out that any planning decision taker imposing a condition cannot unduly or improperly bind the authority or other planning officers moving forwards. The planning decision taker must simply exercise his or her own planning judgement. Mr Lopez submitted that any concern I might have that a future person might reach a different view is irrelevant. It is a matter for the planning judgement of the relevant officer at the relevant time. It seems to me that must be correct. He further submitted that for this challenge to succeed, the Claimant would have to say that the planning officer's judgement in this case that a change to the windows would amount to development is irrational. He pointed to the fact that there is no evidence put forward on behalf of the Claimant to suggest that such a conclusion is irrational.

98. Whilst accepting that she has no evidence on that point, Miss Wigley did not accept that it was necessary. She submitted that it was plainly irrational for Miss Snowball to assert that any works to replace windows, for example simply with different glazing, or simply with a different slot vents, would always materially affect the external appearance of the building. She submitted that is irrational, and that Miss Snowball's evidence on this is simply not credible. She submitted that this simply was not considered at the time of the grant of the Permission and there no decision at all was taken which was designed to retain the mitigation measures for the future. She submitted it is not acceptable to rely on the convoluted evidence of Miss Snowball in seeking to plug the gaps, particularly where such a serious issue of noise exists.

99. In response to questions from me as to whether, rather than this being an issue of planning judgement, it was a matter of law as to the construction of Section 55 Town & Country Planning Act 1990 which defines development, Miss Wigley reminded me that if a future occupier wanted to assert that a change of windows would be lawful development, the procedure would be for the occupier to make an application for a Certificate of Proposed Lawfulness on the local planning authority. It would then be for the local planning authority to decide whether that amounted to lawful development, and any appeal against their decision would lie to a Planning Inspector.

100. Having considered the submissions, I do not consider I could properly conclude that Condition 3 is not capable of covering any future work in relation to the windows given that there is plainly a matter of planning judgement to be made as to whether or not any works proposed amount to lawful development. I recognise that Miss Snowball's evidence is once again ex post facto rationalisation. However, even if the need to keep the mitigation measures for the future was not addressed by the decision-makers, if there is a route by which they can properly address those issues in the future, then the fact they failed to consider them would make no difference.

101. I have come to the conclusion that Ground 5 is made out in that there is nothing on the face of the documents to suggest that any consideration was given to the retention of those noise mitigation measures which the EHO and the planning officer thought were necessary and sufficient in this case. I do consider that the evidence of Natalie Snowball is evidence attempting to plug the gaps in this case. However, in relation to this Ground, I would not grant relief on the basis that the outcome for the Claimant would not have been substantially different if the conduct complained of had not occurred. I consider that the fact that there are matters of planning judgement involved in the application of Condition 3 of the Permission means that Condition 3 can be used as a method to secure the retention of mitigation measures in the future. Indeed, it allows for a degree of flexibility in the future and for the imposition in future applications of measures which might not be available now, but which become available with advancements in technology, development materials and the like.

102. In summary, I reject Grounds 1 and 2. I accept Grounds 3, 4 and 5 are proved. I decline to give any relief on Ground 5 on the basis that Section 31 (2A) Senior Courts Act 1981 applies in relation to that Ground. However, I also find that Section 31 (2A) has no application when considering Grounds 3 and 4. It follows that the planning permission in this case must be quashed.

20 Human Rights

Human Rights: Human Lives

A Guide to the Human Rights Act for Public Authorities

Equality and Human Rights Commission

Equality and Human Rights Commission
www.equalityhumanrights.com

Article 8: Right to respect for private and family life

Everyone has the right to respect for their private and family life, their home and their correspondence. This right can be restricted only in specified circumstances.

What does this right mean?

Everyone has the right to respect for their private and family life, their home and their correspondence.

This right may be restricted, provided such interference has a proper legal basis, is necessary in a democratic society and pursues one of the following recognised legitimate aims:

- national security
- public safety
- the economic well-being of the country
- the prevention of disorder or crime
- the protection of health or morals
- the protection of the rights and freedoms of others.

But the interference must be necessary (not just reasonable) and it should be 'proportionate' – that is, not more than is needed to achieve the aim desired.

Key words and meanings

Private life – The concept of 'private life' under Article 8 is broad. In general, the right to respect for private life means that a person is entitled to live their own life with such personal privacy as is reasonable in a democratic society, taking into account the rights and freedoms of others. For example, it gives people protection from intrusion by the media.

Respect for an individual's personal dignity is part of the protection of their private life. Any interference with a person's body or psychological integrity or the way they live their life is likely to undermine their dignity, potentially in breach of Article 8.

The right to respect for private life under Article 8 also encompasses matters of autonomy and self-determination that may include, for example:

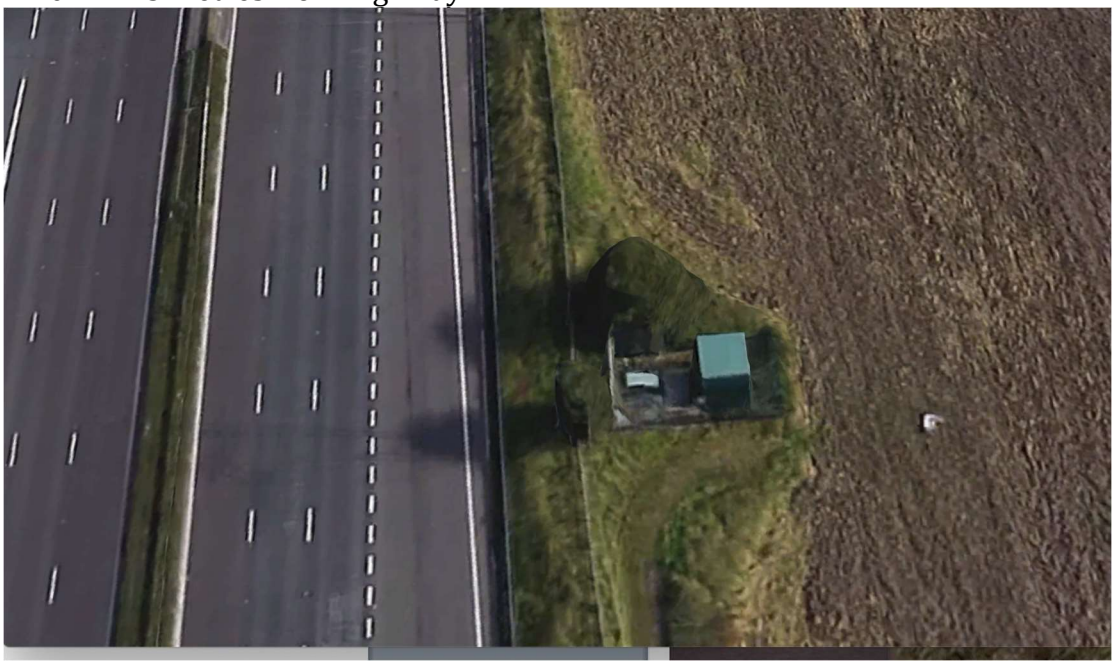
- freedom to choose one's own sexual identity
- freedom to choose one's personal relationships
- freedom to develop one's own personality
- freedom to choose how one looks and dresses.

The right to private life can also include the right to have personal information, such as a person's official records, photographs, letters, diaries, medical information or DNA profile, kept private and confidential. Any disclosure of personal information about someone to another person or body is likely to affect a person's right to their private life under Article 8. Unless there is a very good reason, public authorities should not collect or disclose information like this;

21 Embankment Heights - Images

Appendix 21

MP01 – 7.5 metres from highway

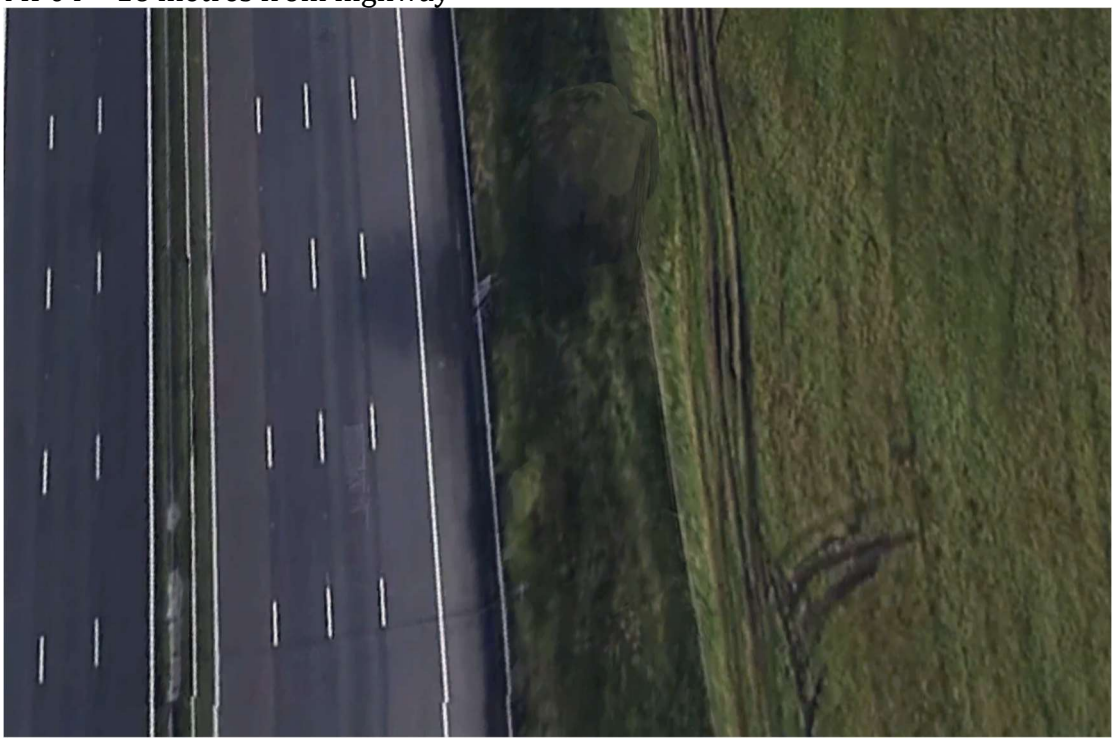


Embankment 2 metres above highway

MP02 – 10 meters from highway

Embankment height = 1 metre below highway

MP04 - 16 metres from highway



Embankment 4.5 meters above highway

Embankment – 25 meters width – 7.5 meters above motorway

Embankment is 11 metre in width and 2.5 meters below highway