

Deadline VIII Submission (29th Feb 2016)Comments on ExA's draft DCO

| Section/Reference | LBH comment |
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| Consultation | <p>1. The Applicant has, as per the Council's request, amended the dDCO in order that the relevant planning authorities are consultees in relation to the following Requirements:</p> <ul style="list-style-type: none"> a. Requirement 4: Gantry Design b. Requirement 6: Engineering drawings, sections and other information c. Requirement 11: Ecological Mitigation d. Requirement 12: Contaminated land and ground water e. Requirement 24: Biodiversity Management Strategy <p>2. Upon reflection of the Applicant's oral submissions at the February dDCO Hearing the Council is satisfied that a prescriptive form of the consultation process within the DCO is not necessary.</p> |

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| | <p>3. The Applicant and the Examining Authority have amended Paragraph 4 (4) of Schedule 2 (Part 2) to require the Applicant to set out the reasons for not reflecting a consultation response in the details submitted to the Secretary of State. The Council is satisfied with the Applicant's amendments to Paragraph 4 (4) of Schedule 2 (Part 2) dDCO submitted on the 15 February 2016. The Council is further satisfied with the Examining Authority's further amendment to the Applicant's amendment in the Examining Authority's dDCO submitted on the 17 February 2016.</p> <p>4. The Council is satisfied that the a second round of consultation does not need to be prescribed within the DCO as the Secretary of State, as decision maker, has the freedom to seek further consultation should it conclude this to be necessary.</p> |
| <p>Application Fee</p> | <p>1. The Applicant confirmed during the hearing that it shall not contribute to the costs that shall be incurred by the Council in participating in the consultation process. The Council's position on this point remains unchanged and given the specialist</p> |

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| | <p>knowledge the Council possesses in relation to the borough it is of vital importance that the Council is able to positively participate in the consultation process.</p> <p>2. The Applicant in the written submissions to Deadline VII has required that the Council confirm the basis upon which it asserts that the Applicant has the power to pay for the local planning authorities to undertake non-statutory consultation. The Applicant further requires the Council to confirm under which legal power the Council is entitled to receive such payment. The Council made clear during the dDCO hearing that the Council were not entitled to such a fee although believe that the fee would enable the Council to positively participate in the consultation process. The Council can find nothing that prohibits the Applicant from making such a payment and the Council argues that such a fee is reasonable.</p> |
| <p>Other issues relating to the Discharge Procedure</p> | <p>1. The Council notes the Applicant's submission that the consents subject to the procedure under Schedule 12 are very different to those subject to Schedule 2 and would confirm that</p> |

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| | <p>they have no further submissions on this point.</p> <p>2. The Council was originally concerned that Paragraph 1 (3) (c) of Schedule 2 (Part 2) refers to an application being accompanied by a report that shall consider whether it is likely that the subject matter of the discharge application is to give rise to any '<i>materially new</i>' or '<i>materially worse</i>' environmental effects and believed that a definition of '<i>materially new</i>' or '<i>materially worse</i>' would be useful. The Council are content that the Secretary of State shall use subjective planning judgement to assess whether a discharge application is to give rise to any '<i>materially new</i>' or '<i>materially worse</i>' environmental effects.</p> <p>3. The Council notes that the Applicant has inserted a forty two day appeal period under Paragraph 4 of Schedule 12, which the Council is content with.</p> |
| <p>Service Level Agreement</p> | <p>1. The Examining Authority requested an opinion as to how a joint planning body would operate under a Service Level Agreement. In relation to the M4 Smart Motorway the Council would prefer the Applicant's suggested discharge procedure to</p> |

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| | <p>that of discharge procedure by way of a Service Level Agreement due to the number of local authorities involved.</p> |
| <p>Amendments to dDCO at deadline VII</p> | <ol style="list-style-type: none"> 1. The Council notes that the Applicant made numerous amendments to the dDCO at deadline VII¹. The Examining Authority has made subsequent amendments to the Applicant's further amended dDCO.² The Council welcomes the insertion of Requirement 25 - Air Quality Management Scheme)³ and further details relating to this specific requirement are set out below. 2. The Council notes that the Examining Authority have amended Requirement 5 (Carriageway Surfacing) so as to remove the obligation on the Applicant to maintain the low noise surfacing for fifteen years. During the February Hearings the Applicant argued that to constrain the Scheme in perpetuity in terms of the surfacing to be used was not appropriate as it may no longer be economical, or circumstances may have changed on |

¹ Further amended dDCO by the Applicant was submitted on the 15 February 2016

² Further amended dDCO by the Applicant was submitted on the 17 February 2016

³ London Borough of Hillingdon Written Submissions - Environment Requirement 25 (Air Quality) 29 February 2016

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| | <p>the Strategic Road Network such that it is not longer necessary or appropriate. The Applicant has provided no evidence to prove that such low noise surfacing would no longer be necessary post the fifteen year period.</p> <p>3. The Council is surprised that the Examining Authority has removed the obligation on the Applicant to maintain the low noise surfacing for fifteen years. Whilst the Council is not satisfied that a fifteen year period is sufficient the Council would rather have a nominal maintenance period confirmed in the DCO rather than none at all as the Council is not satisfied that the obligations required on the Applicant under the Highways England Licence⁴ or the Manual of Contract Documents for Highways Works are specific as to the maintenance of the low noise surfacing. Of preference to the Local Planning Authority is an amendment to the requirement which proposes maintenance of low noise surfacing for the lifetime of the development.</p> <p>4. The Council has no further submissions in relation to all other</p> |
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⁴ April 2015

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| | <p>amendments made by the Applicant and the Examining Authority.</p> |
| <p>Requirement 25; Air Quality</p> | <p>The Six Condition Tests</p> <ol style="list-style-type: none"> 1. The Examining Authority has inserted a new Requirement (Requirement 25 - Air Quality Management Scheme) into the dDCO. The Council fully supports a requirement that necessitates the Applicant to provide a monitoring strategy for NO2 in consultation with the local authorities during construction and beyond the Schemes opening. The Council further supports a requirement that the Applicant provides appropriate mitigation if the monitoring shows it to be necessary. 2. The Council have reviewed Requirement 25 and sought Professor Laxen's and the Council's air quality officers professional opinion and they have recommended the following requirement as an alternative for the Examining Authority's consideration: <p>25. Air quality management scheme:</p> |

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| | <p>(1) No part of the authorised development must commence until the undertaker has prepared a monitoring strategy for NO₂. The monitoring scheme must:</p> <ul style="list-style-type: none">(a) be prepared in consultation with the relevant local authorities for the Air Quality Management Areas in which the authorised development is located;(b) identify the number, location and specification of the monitors as well as their operation and provision of data to the relevant local authorities for the Air Quality Management Areas in line with guidance on air quality monitoring issued by the Department for Environment, Food and Rural Affairs in LAQM.TG(09) (or TG(16)) and with all of the requirements in the Directive 2008/50/EC.(c) be in place and operational prior to the commencement of the authorised development.(d) include a protocol for reporting the NO₂ results to the relevant local authorities for the Air Quality |
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| | <p>Management Areas either through direct access to monitoring data or on a monthly basis throughout the year.</p> <p>(e) remain in place until the monitoring can satisfactorily show that there has been no exceedence of national air quality objectives or European Union limit values for NO2 for 3 calendar years or as agreed in writing with the relevant Local Planning Authority for the Air Quality Management Areas.</p> <p>(2) The monitoring data must be reviewed by the undertaker in consultation with the relevant local authorities for the Air Quality Management Areas at six-monthly intervals during the monitoring period of 3 calendar years unless otherwise agreed in writing with the relevant Local Planning Authority for the Air Quality Management Areas. If any such review identifies that the air quality has not improved in line with the expectation set out in the ES such that concentrations will be higher than predicted and thus exceeding or more likely to exceed the national</p> |
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| | <p>air quality objective or European Union limit value for NO₂, the undertaker must, unless otherwise agreed in writing with the relevant Local Planning Authority for the Air Quality Management Areas:</p> <p>(a) agree a scheme of mitigation with the relevant local authorities for the Air Quality Management Areas within 6 months of the data review, taking into consideration any local air quality action plans adopted by the relevant local authorities for the Air Quality Management Areas as part of their local air quality management duties;</p> <p>(b) submit the scheme of mitigation for approval by the Secretary of State, following consultation with the relevant local authorities for the Air Quality Management Areas within 1 month of its agreement with the relevant local authorities for the Air Quality Management Areas; and</p> <p>(c) implement the scheme of mitigation within 6 months of its approval by the Secretary of State.</p> |
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3. In the response to the Examining Authority's Second Written Questions and Requests for Information the Applicant claims that there is no need for a specific monitoring strategy as there are no significant impacts predicted nor shall the Scheme effect the United Kingdom's ability to comply with the Air Quality Directive 2008/50/EC. Furthermore, the Applicant argues that it would not be *'proportionate or appropriate in respect of the Scheme, and would not comply with the relevant tests under Circular 11/95 and the Planning Conditions, which is an important and relevant consideration.'*⁵ The Applicant has failed to provide details as to how the six tests are not met.⁶ It is noted that with the exception of Appendix A (model conditions), which is retained, *'Circular 11/95: Use of Conditions in Planning Permission'* has now been replaced by the Planning Practice Guidance ('PPG') on an external website⁷.

⁵ Paragraph 11 Page 50 of the Examining Authority's Second Written Questions and Requests for Information

⁶ Paragraph 14 of Circular 11/95: Use of Conditions in Planning Permission

⁷ <http://planningguidance.communities.gov.uk/blog/guidance/use-of-planning-conditions/>

4. The first test of the PPG⁸ requires the requirement to be '*necessary*' to make the development acceptable in planning terms.⁹ A requirement should not be wider in scope than is necessary to achieve the desired objective.¹⁰ The Council's suggested Requirement 25 does not go further than to address the potential harm caused by the development. The Council has provided evidence via Professor Duncan Laxen that the predictions based on the Applicant's methodology are overly optimistic as they rely heavily on Euro6/IV vehicles delivering substantial reductions in emissions to reduce concentrations to well below current measured levels. Professor Duncan Laxen has also shown that concentrations alongside the M4 within Hillingdon would be significantly higher if the modelling were to be calibrated to match the concentration measured by the official Defra AURN monitoring station that lies close to the M4. The impacts within the London Borough of Hillingdon are also clearly significant when assessed using the alternative approach adopted recently by air quality professionals in the Institute of Air Quality Management (IAQM). This guidance is

⁸ Paragraph: 003 Reference ID: 21a-003-20140306

⁹ Paragraph: 004 Reference ID: 21a-004-20140306

¹⁰ Paragraph: 004 Reference ID: 21a-004-20140306

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| | <p>applied principally to road traffic emissions associated with new developments within the Planning system. Furthermore, the Examining Authority considers that there is a <i>'high level of uncertainty in the future emission levels that will be achieved for Euro6/VI vehicles, which in addition to the usual uncertainties which must be taken to secure mitigation for the M4 scheme in the event that the levels forecast in the air quality assessment are not achieved.'</i>¹¹ Thereby making this condition absolutely necessary to ensure the operation of the scheme is as predicted within the modelled scenarios. This position is standard within development consents, for example for the ongoing monitoring of water quality.</p> <p>5. The second and third test of the PPG¹² cannot be called into question as the condition is clearly relevant to planning and the development to be authorised.</p> <p>6. The fourth test of the PPG¹³ relates to the enforceability of a requirement and it must be possible to detect a contravention</p> |
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¹¹ Page 12 of the Agenda for issue specific hearing dealing with environment - February 2016 hearing

¹² Paragraph: 003 Reference ID: 21a-003-20140306

¹³ Paragraph: 003 Reference ID: 21a-003-20140306

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| | <p>or remedy a breach of a requirement.¹⁴ The Council is satisfied that an adequate monitoring strategy could be prepared to make enforceability possible. The hearing heard the example of the A556 Knutsford to Bowden road improvement scheme (a DCO scheme) which had a clear requirement for monitoring. Whilst the Council accepts the rationale for the monitoring was different, it nonetheless highlights the practical ability to undertake monitoring of a road scheme. The Applicant was unable to present a case that monitoring would be impossible in this instance. The Applicant also conceded that it would be entirely possible to locate monitors and review the data so as to understand the impacts of the scheme in isolation. There are no elements of the Council's suggested Requirement 25 that would relate to matters which are not within the Applicant's control.¹⁵</p> <p>7. The fifth test of the PPG requires a condition to be precise¹⁶ and the Council are of the opinion that the Council's suggested</p> |
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¹⁴ Paragraph: 004 Reference ID: 21a-004-20140306

¹⁵ Paragraph: 004 Reference ID: 21a-004-20140306

¹⁶ Paragraph: 003 Reference ID: 21a-003-20140306

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| | <p>amended Requirement 25, is precise as it clearly states what is required and when.¹⁷</p> <p>8. The sixth test requires the condition to be reasonable in all other respects and the Council's suggested Requirement 25 does not place unjustifiable nor inappropriate burdens upon the Applicant.¹⁸ In terms of reasonableness, as set out above, it is perfectly practical to undertake monitoring and identify necessary mitigation specific to the scheme. Furthermore, whilst the Council's suggested Requirement 25 is precise enough to provide a clear objective, there is appropriate scope, as with similar planning conditions, to develop the necessary approaches to deliver the objectives.</p> <p>9. Ultimately, the Council's suggested Requirement 25 provides a practical approach to ensure the protection of the health of the communities in close proximity to the motorway. The costs of mitigation will only be incurred if the pollution levels are too high. As the location of the AURN indicates, it is perfectly possible to site monitoring stations in proximity to the</p> |
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¹⁷ Paragraph: 004 Reference ID: 21a-004-20140306

¹⁸ Paragraph: 004 Reference ID: 21a-004-20140306

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| | <p>motorway therefore this is not an unreasonable request. Furthermore, the requirements for Environmental Impact Assessments include the need to consider a development as changed or extended and not just the extension. The Environmental Statement (ES) for this scheme has concluded that the development as changed or extended would not have a significant impact on air quality. The AURN next to the M4 in Hillingdon shows levels of NO2 above 50ugm. At no point in the last 15 years has this monitoring station show levels remotely close to the EU limit value. The average level over the last 7 years is higher than the preceding 5 years. To date, Highways England has presented no mitigation in this area.</p> <p>10. The Council therefore considers it unreasonable to place complete faith in the predictions set out in the ES particularly as this largely ignores the current data from the Defra AURN. The suggested amended requirement is therefore entirely reasonable.</p> <p>11. In conclusion, the Council believe that the Council's suggested Requirement 25 meets all six condition tests under the PPG and should therefore form part of the final DCO.</p> |
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Comments on information received at Deadline VII

Comments are only provided where relevant (not all Hearing Questions are therefore listed below)

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| Environment | |
| <u>Revised Construction Environment Management Plan</u> | |
| Comments on; Measures to mitigate the effects of lighting during construction. | <p>It is noted that section 5.6.2 states how the applicant will seek to mitigate the impact of the lighting during the course of construction, however the terms should be expanded to also consider the impact on local residents, as it only currently relates to the impact on ecology at present; amended wording is set out below (additional text in red):</p> <p>" 5.6.2 To reduce the likelihood of either an environmental incident or nuisance occurring the following measures will be used, where relevant:</p> <ul style="list-style-type: none"> a) prohibition of open fires, and a requirement to take preventative measures to reduce the likelihood of fires; b) removal or stopping and sealing of drains and sewers taken out of use; c) no discharge of site runoff to ditches, watercourses, drains, sewers or soakaways without consultation with the appropriate authority; d) maintenance of wheel washing facilities or other containment measures; e) provision of dust suppression facilities where required; f) location of storage, machinery, equipment and temporary buildings to reduce environmental effects and where practicable, outside flood risk areas; g) use of modern well maintained plant; h) the use of modern specification noise alarms that meet the |

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| | <p>particular safety requirements of the site, such as broadband reversing warnings, or proximity sensors to reduce the requirement for traditional reversing alarms;</p> <p>i) controls on lighting/illumination to reduce visual intrusion or any adverse effect on sensitive ecology <u>and neighbouring residential property</u>;</p> <p>j) the location of site accommodation to avoid overlooking residential property;....."</p> |
| <p><u>Noise and Vibration</u></p> | |
| <p>Working hours at the weekend</p> | <p>The applicants comment. response regarding working hours at the weekend are noted, however concern is still raised about the additional 1 hour start up and close down periods, either side of the core working hours, as this would allow for weekend disturbance to begin at 6am. This is considered unreasonable, especially given the proximity of the Sipson Road construction area to residential occupiers, it is therefore considered that the start up period should not be permitted in areas within the vicinity of residential properties.</p> |
| <p>Enhanced Noise Mitigation Strategy; Cranford Park</p> | <p><u>Document ref. 514451-MUH-00-ZZ-RP-EN-400158, Enhanced Noise Mitigation Study Rev 7R</u></p> <p>Clause 2.19 explains the rationale behind the specification of a range of acoustic barrier heights.</p> <p>The barriers within the Hillingdon section of motorway commence with</p> <p>p) EM32 at the Harmondsworth end, where a 3m barrier is recommended.</p> <ul style="list-style-type: none"> • Clause 2.19, p. 8, r) EM34 recommends a 2.5m high acoustic barrier. • Table 1, p.13, Barrier Specification by Area, refers to EM34 (St Pauls) as a new 2.5m barrier / length 323m. |

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| | <ul style="list-style-type: none"> • Table 1, p.14, Barrier Specification by Area, refers to a second EM34 (Cranford Park) as a new 2.0m barrier / length 570m. , • The Environmental Masterplan (sheet 30 of 31) annotates only one EM34 barrier as a 2.0m high barrier to the south of the motorway / north of Cranford Park. <p>The above information is unclear and inconsistent. If two separate barriers are proposed with different heights, there is a need for an EM35 with its own specification.</p> <p>It is still considered that a 2.5m high acoustic barrier is necessary adjoining Cranford Park to provide dual benefits of noise reduction and improvements to the visual amenity of park users.</p> |
| <p><u>Visual Impact</u></p> | |
| <p>Additional barriers adjoining Cranford Park</p> | <p>The Visual Impact Assessment table advises that that in this case of EM34, adjacent to Cranford Park, the proposed acoustic fencing would help screen transient vehicles from views within the Park. It appears that The Councils request to extend the barriers in this location have not been considered. However, extending the barriers along the boundaries of the park, particularly along the slip roads, would have the same visually beneficial effect.</p> <p>In the case of the Harlington Conservation Area, extending the barriers eastwards as requested by the Council, would also help screen views of transient vehicles. The Council maintains the need to provide the further barriers as set out above.</p> |

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| <p>Temporary Vegetation Clearance</p> | <p><u>Plan ref. Indicative Temporary Vegetation Clearance (sheets 27 Rev 6F, 28 Rev 6F, 29 Rev 6F, and 30 Rev Rev 6F of 31)</u></p> <p>The sheets show extensive lengths (and areas) of potential vegetation removal required to install the acoustic barriers. The specification of the acoustic barriers is welcome in principle. Is it safe to assume that the barriers will be installed from the motorway land and not from off site. If so, the disturbance of existing vegetation can be reduced to the line of the fence with a narrow margin for access.</p> <p>However, the barriers are installed, vegetation disturbance should be reduced to a minimum and should not necessitate the large swathes of woodland removal as indicated.</p> <p>The chainages affected include: 11200.00 -11900.00 (Cranford, south side) 11200.00 - 12250.00 (Cranford, north side) 11900.00 - 12600.00 (Harlington, north and south) 14050.00 - 14200.00 (West Drayton, north side) 14700.00 -15400.00 (West Drayton, north side) 15500.00 - 16000.00 (Harmondsworth, north side)</p> <p>The same sheets also show a significant number of additional smaller (generally square) areas of indicative temporary vegetation removal, notably around the junctions, J3 and J4B, with some clearance interspersed along the carriageway. It is not clear why clearance is required at these new locations and it is also considered unreasonable for these additional areas of clearance to have been proposed at such a late stage. These matters all relate back to initial comments the council has raised with regard to inadequate detail of replacement planting which makes assessment of the temporary vegetation loss</p> |

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| | impossible to assess. |
| Environmental Masterplan drawings; clarification | <p><u>Plan ref. Environmental Masterplan (sheets 27 Rev 10F, 28 Rev 9F, 39 Rev 9F and 30 Rev 9F of 31)</u></p> <p>The main amendments are in the form of recently proposed acoustic 'barrier information' summarised in the orange / brown roundels and the additional grey roundels which highlight local environmental objectives. - As a general point, the legibility of the plans is hampered by the colours used in the key to the 'Environmental Elements-Landscape', where the shades of green used to represent different vegetation typologies are close enough to be misinterpreted.</p> <p>Barrier Information (graphical errors):</p> <ul style="list-style-type: none"> • Sheet 27, ch. 15600.00, annotation ref. 'EM32 / 3.0m / reflective' refers to a barrier detail and should be coloured brown, • Sheet 29, ch. 12250.00, annotation ref. 'EM33 / 3.5m / reflective' refers to a barrier detail and should be coloured brown • Sheet 29, ch. 12650.00, annotation ref. 'EM34 / 2.5m / absorptive' refers to a barrier detail and should be coloured brown, • Sheet 30, ch. 11750.00, annotation ref. 'EM33 / 3.5m / reflective' refers to a barrier detail and should be coloured brown. |
| Lighting columns of 15metres in height | <u>Document ref. Written Summary of Issue Specific Hearing Dealing with Landscape and Heritage, dated Friday 12 February 2016</u> |

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| | <ul style="list-style-type: none"> • Clause 12, p.3, Highways England confirms that the only location where columns higher than 12.9m may be used is between junction 10 and 12. Please compare this with... <p><u>Document ref. Issue Specific Hearing - Environment - Landscape and Heritage, Appendix A - Plan showing locations of 15m Lighting Columns</u></p> <ul style="list-style-type: none"> • Dwg., No. TR010019 - VII - 01, Schematic Lighting Plan, shows existing 15m lighting columns between J4-4B, in Hillingdon. This proposal appears to contradict the written statement above? <p>It has not therefore been possible for the Council to assess the impact of the proposals as there has been insufficient clarity provided by the applicants as to whether 15 m columns exist within the LBH area and objection is raised to the additional 1metres deviation proposed to 15m lighting columns due to their visual impact and the potential impact of additional lightspill and nuisance caused by 16m high lighting columns.</p> |
| <p>Appendix G: Visual Impact Assessment Table</p> | <ul style="list-style-type: none"> • p.13, EM33, Eastbound, ch. 12350 - 11220 is described as a a new 3.5m high fence. • The Environmental Masterplan, sheet 29, shows a 'Barrier Information' roundel at ch.13020, specified as a 1.8m reflective barrier on Shpiston Lane. There is no linear symbol for a barrier in this location. • The same plan shows the correct description / location (wrong colour roundel) at 12250.00. <p>Clarification / amendment required. Otherwise, there is no objection to</p> |

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| | <p>description of visual effects and the visual change described in the table.</p> |
| <p><u>Water Environment</u></p> | |
| | <p>In the SoCG between the EA and HE dated 8th Jan, the EA have agreed to the Water Framework Directive Assessment on the 8th January 2016.</p> <p>However the Frogs ditch was not sufficiently included in that assessment and other documentation suggested that a cantilevered structure was being considered to be placed over the Frogs Ditch, which without detailed design drawings sounds like it will have a similar impact as culverting the Frogs Ditch, which is considered unacceptable to the London Borough of Hillingdon.</p> <p>Although the current FRA March 2016 suggests only options are being considered in section 5.1.64 . The final option must be agreed with the London Borough of Hillingdon, and the Environment Agency as the Frogs ditch is a main river.</p> <p>The London Borough of Hillingdon supports the inclusion in 7.5 Drainage report Section 3.1.30 and 3.1.31 of the investigation of the drainage system at these locations. Any remedial work must be agreed with the London Borough of Hillingdon, and the details provided.</p> |
| <p><u>Air Quality</u></p> | |

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| <p>Additional Traffic Forecasting Questions</p> <p>LBHill Para 12 page 3, of the HE written submission further emphasises the uncertainty of the modelling and the risk of concentrations being under predicted, hence justifying LBHill's call for monitoring and mitigation .</p> | |
| <p>Question E.1</p> | <p>LB Hill reject the position set out by HE in para 6 for reasons explained by Prof. Laxen during the Hearings and in LB Hill's responses. In particular, what happens at the Hillingdon AURN site in future years is critical to the assessment of compliance with the Limit Value. The use of the AURN to calibrate the model is the only way to reliably predict future concentrations at the AURN site. This assessment shows that the Limit Value will continue to be exceeded in 2022. The scheme will make this exceedence worse.</p> <p>The local authorities have a duty to work towards compliance with the air quality objectives, the ultimate responsibility for meeting them is the responsibility of the SoS. LBHill are, therefore, surprised with the statement at the end of Para 17, page 9/10 which states, in relation to the A556 scheme, "even with mitigation, there were some receptors which remained above 40ug/m3, and this was found to be acceptable by the Secretary of State, who did not require that all receptors had to be mitigated to be below 40ug/m3"..</p> |
| <p>Question E3</p> | <p>LBHill are concerned with the comment in Para 1 page 13 in regard to "the issues raised by Prof Laxen were only raised very recently". LBHill have detailed below the email correspondence from early December in which the local authority was attempting to gain sufficient</p> |

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| | <p>information to be able to understand the methodology.</p> <p>Record of Email Correspondence between LBHil and HE to Discuss LTTE6 Issue.</p> <p>LBHil represented by Prof. Duncan Laxen</p> <p>HE represented by David Deakin and Elisha Coutts</p> <p>Correspondence to and including 08/02/16</p> | | |
| <p>Email 03/12/15</p> | <p>To David Deakin (HE)</p> | <p>From Duncan Laxen (LBHil)</p> | <p>“In our discussion on Monday (30/11/15) you said you would provide further feedback on my concerns that the LTTE6 calculations in the ES were only just above the EFT calculations.” + another matter.</p> |
| <p>Email 21/12/15</p> | <p>David Deakin (HE)</p> | <p>Duncan Laxen (LBHil)</p> | <p>Can you please tell me whether you are going to respond to my email below and if so when?</p> |
| <p>Email 24/12/15</p> | <p>Duncan Laxen (LBHil)</p> | <p>David Deakin (HE)</p> | <p>Addressed the other matter but not the LTTE6 point.</p> |
| <p>Email 04/01/16</p> | <p>Duncan Laxen (LBHil)</p> | <p>David Deakin (HE)</p> | <p>“will you be responding on the other matter raised in my email of 3 December 2015, namely” LTTE6.</p> |
| <p>Email 07/01/16</p> | <p>Elisha Coutts (HE)</p> | <p>Duncan Laxen (LBHil)</p> | <p>“We don’t recall the last point in your e-mail below. I think we previously indicated that if any</p> |

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| | | | | <p>more information is provided to us by Highways England regarding LTTE6 we would pass it on, but we have nothing new to report.”</p> |
| | <p>Email 11/01/16</p> | <p>Duncan Laxen (LBHil)</p> | <p>Elisha Coutts (HE)</p> | <p>In relation to the outstanding point, I provide further clarification below:</p> <p>In the absence of further information from you, I can only assume that there is an error in your workings. My reasoning can be illustrated with the results for X9 (all base values, without scheme): 46.8 $\mu\text{g}/\text{m}^3$ in 2013, 34.4 $\mu\text{g}/\text{m}^3$ in 2022 with the EFT6.02 (corrected subsequently to EFT 6.0.2) and 36.2 $\mu\text{g}/\text{m}^3$ with the LTTE6. Using the previous LTT the 2022 value would have been 43.8 $\mu\text{g}/\text{m}^3$.</p> <p>Figure 1 from HE’s ‘Note on HA’s Interim Alternative Long Term Annual Projection Factors (LTTE6) for Annual Mean NO2 and NOx Concentrations Between 2008 and 2030’, which you previously introduced to the Hearings shows the LTTE6 concentration falling halfway</p> |

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| | | | | <p>between the LTT value and the EFT6.02 value (called ABE6 in that document).</p> <p>This would mean from my understanding that the LTTE6 should lie halfway between 43.8 $\mu\text{g}/\text{m}^3$ and 34.4 $\mu\text{g}/\text{m}^3$ i.e. 39.1 $\mu\text{g}/\text{m}^3$ 36.2 $\mu\text{g}/\text{m}^3$</p> <p>If I have got something wrong, or misinterpreted something then please let me know.</p> |
| | <p>Email 20/01/16</p> | <p>Duncan Laxen (LBHil)</p> | <p>Elisha Coutts (HE)</p> | <p>We are preparing for the next Hearings re this scheme.</p> <p>I sent the email below on 11 January, 9 days ago. Can you please tell me when you will be able to respond?</p> |
| | <p>Phone 26/01/16</p> | <p>Duncan Laxen (LBHil)</p> | <p>David Deakin (HE)</p> | <p>No reply</p> |
| | <p>Email 26/01/16</p> | <p>Duncan Laxen (LBHil)</p> | <p>David Deakin (HE)</p> | <p>I would be grateful if you could give me a call asap</p> |
| <p>In regard to para 3, page 13 LBHil have reviewed the document on the LTTE6 methodology provided by HE and taken into account the discussions held between LBHil and HE subsequent to the Hearings on 11 February. Prof. Laxen now believes he understands what HE</p> | | | | |

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| | <p>has done. His understanding is that, HE has used Figure 1 to derive a curve (the LTTE6 curve) that factors the base year (2013) concentrations forwards. The factor in this case is that from 2013 to 2022 (which is 0.73). This factor is understood to apply to all 2013 concentrations irrespective of the local background and irrespective of the relative contributions of the local road and the background. It is the view of Prof. Laxen that this is a very unsound approach.</p> <p>It is also clear that the principal behind the LTTE6 curve is that it lies half way between the concentration derived from LTT projection and that from a projection based on Euro 6/VI (E6 only) applying from around 2014 but with emissions from other Euro classes remaining constant. This pragmatic use of a value half way between the LTT and the E6 only lines reflects that there is essentially no other way of deciding what to use. When carrying out an assessment, such as that for the M4 Smart Motorway, the future year concentrations are derived using the EFT v6.0.2 emissions. The EFT v6.0.2 takes account of Euro 6/VI emissions. Using the logic adopted by HE it is therefore totally appropriate to expect the LTTE6 value to lie half way between the EFT v6.0.2 value and the LTT value. Prof. Laxen has shown in the LBHill deadline VI submission at 4.6.4 that this is not the case, and that if the principal adopted by HE were to be applied the LTTE6 concentrations would be higher than those presented in the ES.</p> |
| <p>Question E4</p> | <p>LBHill draw the ExA's attention to the text in para 3, page 14, in particular the phrase ""it (HE) keeps Defra advice under review on an on-going basis, so if a more pessimistic view is required (e.g. if it becomes apparent that most vehicles will fail Euro 6 tests) then</p> |

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| | <p>Highways England can make any necessary changes". LBHill believe this indicates that the HE acknowledge there is a risk and thereby this supports the LBHill request for monitoring and mitigation.</p> <p>LBHill note that in para 4, and para 8 page 15 the HE states there is a fund for air quality improvements (£100m) and that the HE will be deploying monitoring stations around the national network. This position supports the LBHill position that monitoring is feasible, there is funding available and that, therefore, the LBHill request is reasonable.</p> <p>LBHill note the table and location in para 9, page 16 which indicate the location of a proposed air quality monitoring station. This location will be of no help to the concerns raised by LBHill. The site is in a relatively rural area well away from Hillingdon. It is also up-wind of the M4 in relation to the prevailing south-westerly winds.</p> |
| Question E.6 | <p>LBHill note that in para 3, page 18 the HE refer to the fact that the Emission Factor Toolkit (v6.0.1) makes allowances for Euro 6 diesel vehicles not meeting the standard, with an assumed uplift of approx 2.5. LBHill's concern is that this is not necessarily a sufficient allowance.</p> |
| Question E.7 | <p>At para 4, page 19 HE describe how they derived Figure A2 (Figure A2, page 42). As it nominally presents absolute concentrations, it should be considered misleading, despite disclaimers that it is not designed to represent real conditions (para 5, page 20). The text in</p> |

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| | <p>para 4 makes clear that the DMRB spreadsheet model has been used. This is totally inappropriate, as it makes use of an old version of the EFT. It is also not clear how background concentrations have been added. Without all this information to check what is shown it is totally inappropriate to interpret the relationship between 2013 and the 2022 results as being at all meaningful. Without further details on the appropriateness of what has been done, LBHill would encourage the ExA to give little or no weight to Figure A2.</p> <p>At paras 13-16, page 21 the HE describe the schemes where the LTTE6 methodology has been previously used. It is clear that there has been very limited use of the HE LTTE6 methodology. Prof. Laxen has criticised this methodology (see above).</p> |
| Question E.10 | <p>As stated in para 4, page 26, LBHill has agreed the AURN note as a joint statement. The last 7 years show concentrations as static with no improvement in air quality. The LTTE6 note is not agreed, LBHill remain concerned as described above.</p> |
| Question E.11 | <p>LBHill support the ExA's concerns that the challenge of future proofing of air quality needs to be secured through the DCO process. LBHill support the requirement for a monitoring strategy accompanied by mitigation if improvements do not materialise as the HE have predicted.</p> |

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| Question E.13 | <p>In para 8, page 35, HE state it would not be appropriate to "waste time, resources and money monitoring areas where assessments indicate no significant effect". As is clear from the evidence of Professor Laxen, LBHill are concerned that the assessment presented by HE is potentially over-optimistic in regards to future reductions in emissions.</p> <p>LBHill support the ExA questioning at the Hearing, referred to in para 4, page 34, which repeatedly asked the HE to consider the potential for monitoring. The example was given of monitoring on the M25 J 23-27 scheme which supports the LBHill position that this is both feasible and not an unreasonable request. It is LBHill's view that the risk of not monitoring is greater than the risk of monitoring. Protecting the health of LBHill's residents justifies the relatively minor costs of monitoring.</p> <p>The Council notes that since the installation of the monitoring station in 1997, the London Hillingdon AURN has never shown yearly averages of NO2 to be below 40ugm3, with no values recorded below 50ugm in the last 8 reporting years. The Council is not aware of any measures which have been implemented by Highways England, or its predecessor, within this time, which have resulted in reductions in air pollution. The Council is therefore highly concerned that if they were not required to monitor the proposed scheme, that it would be unlikely that voluntary action would be undertaken by Highways England to rectify the situation should the air quality levels not decline as swiftly as they predict.</p> |
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| <p>Examining Authority's Further Questions</p> | <p>Para 2 page 36</p> <p>In paras 1 and 2, page 36, HE indicate difficulties in applying mechanisms such as reducing speed limits to reduce emissions. LBHill wish the ExA to note that it is accepted that an average of 50mph, due to flow breakdowns, could be worse in terms of emissions. However, this occurs on an unregulated motorway with a 70mph speed limit. There is evidence from user experience that use of average speed cameras set to 50mph through roadworks, smooths flow and would therefore be effective in reducing emissions. There is also evidence that gantry speed controls on smart motorways smooths flow. There is therefore a mechanism to achieve an improvement.</p> |
| <p><u>Traffic and Transport</u></p> | |
| <p>To date, the Council has received no further information from HE with regard to traffic and transport matters which are outstanding. LBH maintains an objection in the absence of any proposed mechanism to further survey the impacts of the proposal on the local highway networks.</p> | <p>As stated previously, the Council is still awaiting the applicant's scope of work and therefore maintains its objection with regard to the local highway network.</p> |