

**Issue Specific Hearing 8 (ISH8) on Noise and Vibration and Air Quality**  
**Theberton and Eastbridge Parish Council, B1122 Group and Stop Sizewell C**  
**Oral Contribution by Cllr. Paul Collins**

**Noise Vibration and Air Quality**

***Our oral submissions appear bulleted and in italics.***

***Please note any text highlighted with bold and italic emphasis in the following submission represents additional information not conveyed in the oral submission.***

**2. The assessment of the noise and vibration impacts of the Proposed Development:**

- (a)
    - (i) Whether the potential noise and vibration impacts of the Proposed Development can be satisfactorily assessed from the information submitted by the Applicant?
    - (ii) If not, what additional information would be required?
- *I would echo some of the points that Mr. Bedford just made about that noise monitoring, particularly along the B1122. In certain areas that are no background noise values at all along the B1122. A similar situation applies to vibration impacts during the early years. I realise that in section three we will come back to early years. Evidence is not forthcoming from the applicant in these areas and we'd like to see that strengthened.*
  - (b) Whether the SOAEL, LOAEL levels for construction, traffic, rail noise and vibration are set at appropriate levels.
  - (c) Whether higher standards of protection are appropriate in light of the potential length of the construction period
- ***We would like to see higher standards of protection given the long construction period, in particular at Theberton where a significant impact is expected both prior to the SLR being completed and into the ~8 year period after the SLR is fully operational. We also support TASC's position on the MDS given its proximity to Minsmere, Sizewell Marsh and its position within the AONB.***
  - (d) Operational noise at the MDS and traffic noise from the new roads
- ***We support the position that the noise levels from the MDS should be kept as low as possible and agree with the county council that the current proposals should be lowered considering the proximity to Eastbridge of the development site operations. The position taken by TASC regarding the sensitive nature of the surroundings and referred to above also serve to reinforce this point.***
- ***New roads, especially those close to residential areas, such as the SLR at Theberton should be laid with the most effective low road noise surface that is possible given the expected use and volume of traffic.***

**3. The implications of the traffic noise from the Proposed Development during construction and operation**

- (a) The early years

- *To go back to the whole issue about noise in the early years. When you look at the assessments that have been done through Theberton in particular, they seem to be completely absent. When you look at the noise along Lovers Lane there are figures and numbers for it up to the point at which you get to Theberton village and then if you look from the Yoxford roundabout all the way to the B1125. These figures are there and the information is there. But when you look for something to do with Theberton, it seems to be completely absent unless it's in another document I have yet to find. Indeed in the statement of common ground between Stop Sizewell C and EDF, even in the latest proposed change, there has not been an answer to this question. So, I presume, nothing is there otherwise, I'd have seen it. And that's worrying because we can't actually tell what it is that we're expected to see in terms of noise throughout Theberton village, although we assume it's going to be fairly horrendous. It's interesting that the applicant is now saying that they're going to apply noise mitigation, no matter what, to anybody who actually faces onto the B1122. But in the other hand, we still have an issue about vibration and whilst I do understand what the applicant is saying about figuring out whether vibration will be an issue, we don't see any particular evidence of assessments being done throughout the villages about whether there is soft ground or not and therefore, whether vibration is an issue or not. So we really still are in the dark about this.*

*It's also interesting to see that when you look at the tables of the numbers of HGVs, that are in their assessment, they are higher than the 300 that we are talking about as a limit. So there seems to be some misunderstanding as to exactly what it is that we're expected to put up with. So all ways round, I think the early years are an issue as was brought out in the last transport hearing in ISH2, we don't actually know what sort of vehicles are going to be travelling down the B1122.*

*With the whole issue about the use of the SLR during construction as some sort of haul road, there's no clear indication of what is going down where and where it's coming from. So, I think the whole issue of early years transport and HDV numbers is still somewhat opaque. And I think we really need to get to the bottom of that.*

- ***Existing roads such as the B1122 which will be heavily used and that are close to residential properties should be re-laid with the lowest possible low road noise surface prior to any construction traffic being allowed to flow along those roads.***
- ***We welcome the announcement by Mr Rhodes for the applicant of the extension of noise mitigation for all properties fronting the B1122 but would like to see more detail on why properties that are just off the B1122 directly are not also included in such a scheme. There are a number of properties in Doughty-Wylie Close in Theberton which will be similarly affected in the early years, but with the current definition will not be included directly in this change. We would like to understand the assessment that has prompted this and why those assessments are not extended to other properties close to the B1122 which will also experience simultaneous and significant noise from the construction of the SLR.***
- ***We would request that during the early years a clear statement is made that there will be no HDV traffic on the B1122 between 23:00 and 07:15 under any circumstances.***

- **NV.1.52 Sizewell Link Road Preparation phase – significant adverse effects are identified at Fir Tree Farm, Rosetta, Dovehouse Farm, Church Farm, Rookery Farm and Keepers Cottage ([PD-021](#))**
  - **We believe that the applicant's mitigation measures (section 4.7 in Volume 6, Chapter 4 of the ES – [APP-451](#)) are insufficient, in particular as screening vegetation will take some time to grow. The applicant should add noise screening fencing and double/triple glazing.**
  - **We do not believe that sufficient weight has been given to receptors exposed simultaneously to Early Years traffic and SLR Construction noise, including Norwood House retirement home, Thatched House and other residences in Middleton Moor on the south side of the B1122, Garden House Farm, Annesons Cottage and Valley Farm. These should also be offered noise screening fencing and double/triple glazing. This also applies to receptors on the B1122 in Yoxford.**
- **NV 1.76 Vibration effects on Heritage Assets ([PD-021](#))**
  - **The applicant states that "HGV traffic does not typically generate vibration sufficient to reach thresholds of damage to buildings, including heritage buildings, except where there are defects in the road paving or supporting formation" without providing any reference or support. It may be that they are relying on Transport and Roads Research Laboratory reports 156 and 207 from the late 1980s, and the Design Manual for Roads and Bridges (DMRB) which is based on them.**
  - **Since then, the permitted size and weight of HGVs has increased from 38 tonnes to 44, and we submit they are no longer appropriate.**
  - **In 2008 the City of Bath, with the support of Unesco and Civitas, stated that 'it was their belief that HGV vibrations are a cause of structural damage to historic buildings and set aside the advice and guidelines in DMRB'. (reported in 'Context', Institute of Historic Buildings Conservation, No 144, May 2016).**
  - **We would also refer the ExA to the following more recent studies:**
  - **Modeling Traffic-Induced, In-Dwelling Vibration Using Urban Design and Planning Variables, K. Mert Cubukcu, Journal of Architectural and Planning Research 32(4):307-323 December 2015**
  - **This states "A general review of the literature reveals that architectural damage may occur when the PPV exceeds 5 mm/s, and structural damage may occur when the PPV exceeds 10 mm/s for modern buildings."**
  - **Traffic-induced vibrations. The impact on buildings and people. Anna Jakubczyk-Galczyńska, Robert Jankowski, The 9th International Conference "ENVIRONMENTAL ENGINEERING", 2014**
    - **Which states: "Traffic-induced vibrations may cause plaster cracks, structural damage and even failure and collapse of the structure."**
  - **There are listed buildings on the B1122, not least Theberton Church, while others in Yoxford, Middleton Moor and Theberton are very close to the road.**

- *The proposed development would have significant and adverse impacts on the historic environment of East Suffolk and the setting of many significant built heritage assets, including the settings of St Peter's Church Theberton, and Leiston Abbey.*
- **NV 1.77 Early Years ([PD-021](#))**
  - *We maintain that the level of traffic generated during the early years creates an unreasonable burden on the local community in terms of traffic, noise and air quality. We do not believe that the applicant has addressed this sufficiently. They state that "these effects are only acceptable if there is no practical alternative and should not be sustained for longer than it takes to deliver the Sizewell link road." There is an alternative: that the Link Road (ideally on the Route W North/ D2 route) be operational before work starts.*
  - *The applicant also states that "it would be unacceptable for these effects to be imposed on the communities along the B1122 for the whole 10-12 year construction programme." It is hard to understand how it is acceptable for 2-3 years, which would be ample for a normal project, when it is not for 10. Noise and air quality are experienced and measured on a day-by-day, month-by-month basis. Is the applicant seriously telling residents "It's OK because it will be gone in two years time"?*
- *The amount of road based transport would have severe adverse impacts on local communities and result in long term damage to the East Suffolk visitor economy. The proposed delayed completion of the SLR until year 3 of the development will mean that the A12 through Yoxford and the B1122 will carry substantially increased traffic during the first three years of site development, including additional 200 HGV movements per day associated with the SLR's construction over and above the 600 HGVs associated with the early years construction at the Sizewell facility. Furthermore, the majority of the other proposed transport mitigations will not be implemented in the early years' timeframe, leaving consequential and unfair adverse impacts on communities and road safety. The situation will lead to increased and unmitigated community severance, noise and air pollution. It will increase road danger on a road that is clearly acknowledged by the proposed design of the SLR as unfit for the purpose of carrying heavy traffic. Construction of the SLR at the same time will create, in aggregate, a 'surround sound' of unacceptable noise and disturbance from all sides, affecting residents' enjoyment of living in their communities, their health, safety and mental wellbeing. The magnitude of these cumulative impacts has not been inadequately measured: the ES fails to consider the most sensitive times of day.*

*Noise from SLR will disrupt sleep for many. Many residents will be sandwiched between the B1122 and the SLR and will suffer noise impacts from all sides. Impacts will be particularly severe for young children and shift working adults who sleep during the day.*

**NHS Live Well guide states**

*"Regular poor sleep puts you at risk of serious medical conditions, including obesity, heart disease and diabetes – and it shortens your life expectancy."*

- ***Guidelines from NHS for children's sleep range between 12-16 hours for babies between 4 and 12 months old to 8 to 10 hours for teenagers. Increased traffic levels both during construction and on into operation will have a significant impact on Theberton residents.***
  - (b) Traffic Noise upon completion of SLR, and at the P&R sites
- ***The SLR which will be heavily used is close to residential properties In Theberton and Middleton Moor should have the lowest possible low road noise surface installed when within 250m of residential properties.***
- ***We would request that any proposals to run HDV traffic along the SLR in the period between 23:00 and 07:15 be the subject of additional controls in the DCO and be limited to short durations to cover specific unavoidable project bottlenecks or situations, for example: AIL movements that would close the SLR due to vehicle widths/heights, etc.***
  - (c) Effect of shift patterns and freight management strategy
- ***We concur with SCC's concern about HGV's parking up on the road network overnight and then proceeding to the MDS outside of the 23:00 to 07:15 period. As ~80% of the HGV traffic will be "controlled" through the Freight Management Facility, then HGV's for the next day's deliveries should not be allowed to leave the FMF until the day of delivery. That will leave ~20% of HGV traffic from the north requiring control via the geofencing and time slot allocations within the applicant's control. It should also be made clear to all HGV's that once leaving the site that they should clear the controlled area using the approved routes and not stop and park up causing late night movements along the B1122 or A12 corridor.***

#### **4. Night Time Rail Noise**

- (a) Whether the operation of the rail freight as proposed is an appropriate mechanism for delivery of the proposed development

#### **5. Mitigation and controls including;**

- (a) The Code of Construction Practice (CoCP),
- (b) Noise Monitoring and Mitigation Plan (NMMP),
- (c) Noise Mitigation Scheme (NMS) and
- ***We note that the concession on noise mitigation is not yet secured in the NMS as of [REP6-015](#) and look forward to seeing that update at the earliest opportunity.***
  - (d) Rail Noise Mitigation Strategy (RNMS):
  - (e) Working Hours

Delivery and timing of primary, secondary and tertiary mitigation referred to throughout the ES.

Suitability/enforceability of alternative to Section 60 and Section 61 of the Control of Pollution Act 1974 Procedure

Whether any additional requirements, would be necessary to address adverse noise and vibration affects and whether the ExA should disapply the defence of statutory authority in whole or in part?

## 6. Air Quality

- (a) Methodology of assessment and whether methods used are appropriate to ensure that the Proposed Development will meet the highest environmental standards both during construction and operation.
- (b) PM10 and PM2.5 and NOx Action levels, monitoring locations and reporting procedures
- *To follow up actually on what John Sutherell has just said. It's notable that in PDFs, documents [APP-487](#) Tables 5.10 and 5.11, that the applicant are actually saying that concentrations of PM10 and PM2.5 will actually reduce during the early years compared to their baseline, which quite frankly is unbelievable. How can increased traffic in this area which create these types of pollutants actually exactly end up with a reduction. I could understand a reduction once the SLR has become operable, but certainly not in these early years when some of the traffic levels are at their highest.*
- **AQ.1.56 Early Years ([PD-017](#))**
  - ***The applicant's air quality data shows that the A12 through Yoxford is already on the limits of acceptable particulate levels, with annual concentrations of 15.5 and 10.6 µg/m3 of PM10 and PM2.5 respectively [location YX3, 2018 baseline - [APP-487](#) - 6.8 Volume 7 Chapter 5, Table 5.10]. Yoxford's Primary School is only 200 metres away. The World Health Organisation's Air Quality Guidelines are 20 and 10 µg/m3 of PM10 and PM2.5, respectively.***  
***[\[http://www.who.int/phe/health\\_topics/outdoorair/outdoorair\\_agg/en/\]](http://www.who.int/phe/health_topics/outdoorair/outdoorair_agg/en/)***
  - ***The applicant states in Tables 5.11 and 5.12 that particulate levels will fall during the Early Years, and further still once the Link Road is open. We find that inconceivable, given the substantial increase in vehicles of all kinds, including the near doubling of HGV numbers.***
  - ***We recommend that the traffic and pollution modelling and the assumptions behind it are re-examined thoroughly by an independent authority.***

## 7. Dust mitigation

- (a) Standard that would be enforceable, how monitored and managed to ensure standard is achieved, consequences when/if it is not.

## 8. Stratford St Andrew and Woodbridge AQMA

- (a) Assessment of baseline conditions and subsequent monitoring during construction
- (b) Whether mitigation offered would ensure policy requirements are met

## 9. Mitigation and Controls including;

- (a) The Code of Construction Practice (CoCP),
- (b) Outline Dust Management Plan
- (c) Construction Traffic Management Plan (CTMP)
- (d) Construction Worker Travel Plan (CWTP)
- (e) Percentage of NMMP at highest standards of environmental control
- (f) Percentage of HDV at highest standards of environmental control

Whether any additional requirements, would be necessary to address adverse air quality affects and whether the ExA should disapply the defence of statutory authority in whole or in part?

**10. Any other matters relevant to the agenda**