From: [redacted]
To: A303 Sparkford to Ilchester
Subject: Re: Deadline 2 input, ref personal reference number 20012978.
Date: 21 January 2019 17:21:08
Attachments: A303 Deadline 2 Submission.docx

Ref. deadline 2, please can you take the attached document as my Written Representation
Many thanks
Kind regards
Paul Griffiths

From: Paul Griffiths
Sent: 08 January 2019 16:44
To: A303 Sparkford to Ilchester
Subject: Deadline 1 inputs, ref personal reference number 20012978.

Please may I make the following inputs:
I would like to speak at any subsequent OFH
I wish to make oral representations at an issue specific hearing which I believe will be called for road noise
I wish to have future correspondence received electronically

Many thanks
Kind regards
Paul Griffiths

Written Representation from Paul Griffiths

Road noise reduction, reference 6.1 Environmental Statement, Chapter 11 Noise and Vibration

Firstly, may I report that I had a very interesting and helpful meeting on the 16th January with the team from Mott MacDonald. Unfortunately, with just a few days until the deadline for the submission I need to make my points without further exchange with the Mott MacDonald team. It is quite possible that they have good answers to my points but it will take time to get these and in some way this gives clear evidence of the need for an Issue Specific Hearing on the subject of operational road noise. It is complicated and deserves a deep consideration in order to make the best decision for not only the design of the new road but also for the local Sparkford community.

By way of this input I am making a further clear request for an ISH on operational road noise.

Secondly, I and to my knowledge the community support this project in terms of relieving road congestion and the timing of the project

My input focusses on two points:

That the operational road noise generated with the new road is possibly higher than the existing level of noise

There is no "betterment" from the new road in terms of operational road noise ("betterment" is a project objective)

The new road will be with the local community for generations to come consequently the design should be correct, not second best. I cannot understand why the status quo in terms of road noise or the possible increase in noise can be acceptable. The concept of 3dB not being discernible to a person over a period of time can be seen as a 4dB reduction being discernible and consequently worth achieving. Equally, the concept that people in cities contend with the current level of noise is also not relevant. Sparkford is a village in the countryside and its occupants should be respected.

Para 11.3.25 identifies that all new and improved roads now use low noise road surfaces … and noise barriers are also given as a benefit of capital renewals projects. I would expect to see these two solutions in this project

Para 11.3.29 appears to call into question the WHO guidelines and para 11.3.30 even tends to identify the night time value as a precautionary target or interim target which is in fact a WHO view for under developed countries. WHO say that the interim target should be temporary and only applied in exceptional local situations. As a fully developed country in which I would hope HE is a "leading light" in terms of road noise reduction it seems to be reasonable to apply noise reduction solutions. The WHO guidelines have been reinforced in the latest issue, October 2019. It can be argued that these guidelines are aspirational which I would fully support based on them being based on sound medical advice and reasonable targets for this project. I would expect a "leading light" to aspire to achieving the best results.

Para 11.9.1 identifies bunds and cuttings but in fact with the elevation of the road at Hazelgrove Junction there is effectively no effort to achieve noise reduction from bunds and/or cuttings to the south side around Sparkford.

Para 11.4.28 summarises the LOAEL and SOAEL adopted for assessment. In table 11.9, why are the "noise insulation Regs" used in place of the WHO guidelines?

Para 11.4.35 claims that there is no substantial change to the acoustic character. Using HE values, tables 11.37 and 11.38,

Short term, night time, an increase of 31 dwellings above SOAEL and between LOAEL and SOAEL

And

Long term, day time, an increase of 9 dwellings above SOAEL and during night time, and increase of 85 dwellings above SOAEL and between LOAEL and SOAEL.

There is a deterioration for the community.

What would the result be if the WHO guidelines were used?

Working with values of dB, we should bear in mind that the:

High Street has "modelled" values (dB) of between 66.2 and 70.9 slightly rising after 15 years (façade position, ie. 1m in front of the building and including reflection of noise from the building) with a small increase in noise over and above the existing level of noise

And

Wolfester Terrace has values of between 57.0 and 57.9

Vehicle volumes – what is the effect of an increase of 35% on the A303? Ref. cumulative effects along the A303, weekend and holiday traffic, future upgrade to an expressway ….

Ref my meeting with Mott MacDonald, the following notes were taken:

Increase of 10% in vehicle volume = 1 dB

Modelled values:

High Street receptor, with all noise included = 67.1dB, with no A303 noise included which is approx. 150m away, High Street = 67.0dB! (based on CRTN modelling)

And with A303 noise included, no High Street noise included, 49.0dB (house protecting the receptor)

Ref L10 (level exceeded 10% of the time) index and LEQ (cont equivalent noise level), L10 values used in daytime and LEQ used at night time. Is this significant? Mott MacDonald believe of little significance so why use the two standards? Can all values be converted to LEQ to allow direct comparison?

Vehicle volume and speeds:

A303 14034 plus 16201 = 30235, speed banding of max 97kph (60mph which seems low on a 70mph limit road) in 18hours

High Street = 4316, speed banding of 63kph (40mph which seem excessive on a 30mph limit road) in 18 hours. 3% HGV's ? …….

Please can the modelling use 70/75 mph for the A303 and 30mph for the High Street

4 Manor Close, all noise inputs “on”, 45.8dB (no free field, exc. façade correction)

No High Street noise input and with A303 noise input = 45.5dB

With no A303 input and with High Street noise input = 40.9dB

And for info:

50dB measured at 30m from line source is reduced to 40dB 300m away from line source

Regarding a noise attenuation along the south side of the A303, with a 4m wall on the south side of the A303 at the elevated section (700m length of wall) at Wolfester Terrace, L10 freefield, no wall = 57dB

And a value of 55.8dB with the wall

Questions:

With noise from the A303, what is the value of noise reduction behind a house on the High Street? 10dB?

If 10dB, why is the effect of the 4m wall on the A303 (very close to the vehicles making the noise) only worth 1.2dB at Wolfester Terrace? I am investigating the performance of industrial noise attenuation walls for use along side motorways in order to have a categoric value of performance. It is understandable that the “line noise” will radiate out to the High Street from the top of the wall but what about a concrete wall (required to hold vehicles onto the elevated road) with noise attenuation (wood or metal? For reflection/absorption) element added in front of and/or above the wall? I believe that the M40 and M3 have these devices

At 4 Manor Close, with no A303 noise input, the noise level is “modelled” at 40.9dB but at 5:30 pm on the 16th January and 12:20pm on the 17th January the only noise that could be heard at 4 Manor close was the A303!

Is the High Street so noisy with no A303 noise included? Modelled at 67dB!

When standing on the High Street and listening to the noise it is easy to catch the key points:

At 6:15pm on Sunday 21st January, little wind effect, you can hear one car pass you every minute (on average). No HGV’s passed during a period of one hour. There is the periodic noise of a car (each time it passes)

When no car is passing you can hear the A303 constantly which is hardly surprising as there is approximately 15 cars a minute passing (on average on the A303 at that time) corresponding to a car every 4 seconds. This makes some sense as there are four lanes of continuous cars travelling up to and away from the Hazelgrove Junction

This is the characteristic of the road noise on the High Street. The constant A303 road noise predominantly coming from the east with a periodic noise of a car on the High Street. The direction of the A303 road noise is logical as currently the vehicle speed is quickest in the east with reduced vehicle speeds arriving at and leaving the Hazelgrove junction. With a continuous A303 past Hazelgrove junction it can be expected to significantly increase the continuous A303 noise hitting Sparkford from the west

This will not be helped by the normally prevailing wind which comes from the NW – SSW (ref. Yeovilton weather monitoring). This will exacerbate the problem of the road noise hitting Sparkford, emanating from the new road on the west side of Sparkford

An additional consideration is the joint between the necessary low noise surface and the existing road surface. The joint is best placed toward Chapel Cross as the joint itself could generate 3.5dB translating to approx. 2.8dB at the High Street during night time conditions. This will be very annoying to the community as cars bump over the joint at high speed (perhaps like a train going over the joints in the rails?). The alternative is a very well specified joint and very well executed installation but of course this carries the risk of failure with difficulty to rectify

In conclusion, I have tried to catch the key points of operational road noise which I maintain could increase for the Sparkford community and certainly I can see no specific plans for its reduction. I believe that this is unacceptable and must be considered in detail with an appetite to make improvements. I am convinced that the experts at Mott MacDonald are well placed to do this. I propose that this is done at an Issue Specific Hearing with the correct time allowed for data analysis, modelling, brain storming and “what if’s” for potential design solutions.

Paul Griffiths

20 January 2019