

MS T DANCE

WRITTEN REPRESENTATIONS

HIGHWAYS ENGLAND'S RESPONSE

1. INTRODUCTION

1.1 *The following notes are for the Examining Authority and express the concerns and wishes of the named occupiers at the following properties.*



Re; Project - M4 Junctions 3-12: Smart Motorway

Dear Sirs,

1.2 *I (Roger Denison) have attended both M4 Junctions 3-12: Smart Motorway Scheme Exhibitions held at the Winnersh Community Centre, New Road, Wokingham, RG41 5DU.*

1.3 *I have also spent some time reviewing the various documents available on the Highways Agency website appertaining to the above project.*

1.4 *Although some of the following questions were answered one of the Exhibitions and I have reviewed the most recent publications surrounding the project, in general we support the project, however we still have several areas that we wish to comment on.*

1.5 *Locations and descriptions are based on the report entitled;-*

'Preliminary Environmental Information Report - November 2014'

2. PROPERTY LOCATION

2.1 *Our properties, Waterside & Hillside, are situated in Mill Lane, to the Northern side of the M4, on the west side of Mill Lane, between the Mill Lane Underbridge and the River Lodden Backwater. (Lat N 51°25'28.2, Lon W 000°53'39.5...Approximate - obtained using Phone GPS locator), the properties can be seen clearly marked on M4-PEIR_Drawing_09-2a Habitats-J12-J89 Map-01-44.pdf, Map22 and on M4-PEI R Drawing_04-1_Scheme-Plan Sheet-01-19 J12-J10.pdf Sheet 16.*

2.2 *The properties are a pair of semi-detached, late Victorian cottages.*

- 2.3 *They are set at the base of the M4 embankment, with the motorway fence forming the boundary of Hillside (i.e. the house is within 15m of the hard shoulder barrier, so very close!).*
- 2.4 *In our opinion the ZVI (Zone of Visual Influence) line, indicated on M4-PEIR_Drawing_08-2-Visual-Effects_Key_Sheet-01-16.pdf Sheet 5, has been incorrectly drawn in the vicinity of our properties. The drawing shows the line coming back in line with the motorway boundary as it passes our properties. Although there are some trees on the motorway embankment, which provide some limited cover, they are deciduous and therefore provide next to no cover when not in full leaf, (6 months of the year). Even taking into account their spread in the future the view of our properties from the motorway will still be significant.*

Highways England Comment

- 2.4.1 The concern regarding the Zone of Visual Influence (“ZVI”) has been addressed in the response to the detailed query in paragraph 2.9 below.
- 2.5 *We have an unobstructed view of the motorway from the rear (also including from the side of Hillside) of our properties/bedroom windows/back door/gardens and the current hard shoulder lies approximately 2m (in elevation) above our rear bedroom windows. This means that any traffic using the hard shoulder (including trucks and vans in current lane 1) can easily see into our rear bedrooms etc., this issue has been highlighted recently due to the current roadwork scheme, which has been using the hard shoulder as a running lane.*
- 2.6 *Within the context of this proposed project we would be directly affected by:-*
- (i) *Loss of privacy - as explained above*
 - (ii) *Intrusion of noise - due to closer proximity of motorway traffic*
 - (iii) *Pollution from gaseous exhaust emissions - due to closer proximity of motorway traffic*
 - (iv) *Pollution from air born debris - particulates, tyre debris, dust & dirt thrown up by passing vehicles.*

Highways England Comment

- 2.6.2 Typically in summer the views experienced by motorway users, due to a combination of the oblique nature of the view and traffic speed the existing

vegetation forms a continuous visual buffer at the edge of the motorway on the approach to the Mill Lane underbridge and as such the property and the upper storey windows of the property are indistinguishable features in these views. In winter it is recognised that the deciduous vegetation will be leafless and as such the property in question and its upper storey windows to the rear elevation would be a perceptible element through the branches of this vegetation, although, assuming typical traffic speeds, would be experienced by transient motorway users as a very minor feature and easily overlooked in a momentary glimpse. The addition of the Scheme in views from the property is considered to have a slight adverse visual effect.

2.6.3 The landscape and visual impact assessment for the Scheme is provided in Chapter 8 of the Environmental Statement (“ES”) (Application Document Reference 6-1), along with Appendices 8.1 to 8.4 of the ES (Application Document Reference 6-3) and Drawings 8.1 to 8.4 of the ES (Application Document Reference 6-2).

2.6.4 In making judgements about the visual effects of the Scheme, the assessment is required to consider the baseline situation in which the existing M4, its associated features and traffic form part of the view. Judgements are therefore relative to the baseline situation and the potential change the Scheme would have on the existing view. On this basis, the Scheme would result in a slight adverse visual effect to the property in question, in acknowledgement of the fact that, although the M4 is already a permanent feature in the view from the property, traffic will be moving closer as a result of the use of the hard shoulder. Although there is not sufficient space for planting at this location, the proposed noise barrier (Engineering and Design Report, Annex A1, Environmental Masterplan Sheet 6 (Application Document Reference 7-4) would partially screen views to M4 traffic and the majority of existing vegetation between Hillside and the M4 carriageway would be retained as illustrated in the Engineering and Design Report, Annex A2, Vegetation Clearance Sheet 6 (Application Document Reference 7-4) and the ES Appendix 8.4, item 2.21 (Application Document Reference 6-2). The combination of the new barrier and existing planting would filter views to M4 traffic and provide a visual buffer similar to the present situation over the proposed noise barrier as experienced by travellers in high sided vehicles such as lorries and coaches during the summer months when the deciduous vegetation is in leaf. In winter the windows on the rear façade of the property in question will be

perceptible elements in the view but would continue to be experienced by transient motorway travellers as a very minor, unremarkable feature and would be easily overlooked in a momentary glimpse. In regard to typical traffic flows and vehicle speeds on the Scheme it is considered that the ability of travellers in high sided vehicles using the Scheme to see in to the windows in question during the winter months, would result in a very limited change in privacy compared to the present situation.

- 2.6.5 The proposed noise mitigation for the Scheme comprises low noise surfacing across all lanes, along the complete extent of the Scheme, and a number of new noise barriers. Existing noise barriers will be retained or replaced like for like if in poor condition.
- 2.6.6 Two new noise barriers (2 metres high) are proposed where the Scheme crosses over Mill Lane, as shown in Sheet 5 of Drawing 12.2 (Application Document Reference 12-2).
- 2.6.7 With this mitigation in place, the effects of the operation of the Scheme in this location are beneficial, with noise reductions in the short term and in the long term. The noise changes for the short term are shown in Sheet 5 of Drawing 12.4 and the noise changes for the long term are shown in Sheet 5 of Drawing 12.5 (Application Document reference 12.2).
- 2.6.8 In conclusion, the noise climate to this location will improve with the Scheme in operation.
- 2.6.9 With regards to pollution, the air quality assessment of potential effects of the Scheme includes the assessment of the reduced distance between sensitive receptors and the edge of the motorway carriageway within the detailed modelling. The predicted impacts presented in Chapter 6 of the ES (Application Document Reference 6-1), therefore includes the potential effect of the reduced distance between properties and the motorway.
- 2.6.10 The assessment (Chapter 6 of the ES) identifies that all sensitive receptors on Mill Lane, both north and south of the M4 (A47, A120, N1018 and X52) are predicted to experience annual mean concentrations of NO₂ below the objective value (i.e. the health based objective for ambient air quality) of 40 µg/m³ both with and

without the Scheme in the Opening Year (2022). The location of these receptors is presented on Figure 6.5 (Application Document Reference 6-2).

2.6.11 In addition, predicted annual mean concentrations of particulate matter (PM₁₀) are predicted to be below the objective value (40 µg/m³) both with and without the Scheme in the Opening Year (2022) at all sensitive receptors within the air quality study area. The risk of pollution from larger particle sizes (i.e. dust debris) does not form part of the Design Manual for Roads and Bridges air quality assessment. However, the installation of a new noise barrier in this location will provide a barrier to the dispersion of larger dust particles.

2.6.12 In conclusion, whilst there will be a slight increase in air pollution as a result of the Scheme, the overall assessment of effects indicates that air quality effects are not significant, both along the length of the Scheme and on the local road network.

2.7 *This response has been laid out to deal with the issues that we consider directly affect us, in the order in which they appear in the report. Report page numbers have been included as have Item identification numbers (in bold) and the relevant text (in italics), from the report to give context to the questions. Our questions have been highlighted in bold and additional comments added following the questions in plain text where we feel they are relevant (including items/mitigations that we feel need modifying to alleviate our fears).*

Page 4-14

Improving a Traditional Motorway: Environmental Barriers

"4.2.43 Environmental barriers, in the form of fencing to mitigate noise and visual impacts, will be included within the Scheme where the EIA identifies that this form of environmental mitigation is required. This is addressed in greater detail in Chapters 8 and 12 of this PEI Report."

& Page 4-29

Nearside and verge works

"4.5.16 Work in the central reserve and off side lanes in this section of the motorway is similar to the work proposed for the section from junction 12 to junction 11. Where necessary, the existing hard shoulder will be strengthened to enable it to carry motorway traffic. Other verge features included in the Scheme are: underground ducts to carry power

and communication cables, steel safety barriers around hazards, drainage modifications, lighting (at junction slip roads only), environmental barriers and replacement planting.

4.5.17 *Where the motorway passes over Mill Lane, to the northwest of Sindlesham, there will be 200m of new 2m high noise fence in the northern verge and 50m in the southern verge.*

Carriageway resurfacing

4.5.18 *On completion of central reserve and verge phases of construction the adjacent lanes, i.e. the nearside and offside lanes of each carriageway, will be resurfaced in TSCS (low-noise surfacing). In addition full width new TSCS will be provided as follows:*

- (a) *620m on each carriageway just east of junction 11 to reduce the noise impact to residential properties on Whitley Wood Lane and Babbington Road to the north and Brookers Hill to the south.*
- (b) *1370m on the eastbound carriageway and 90m on the westbound carriageway as the M4 passes between Winnersh to the north and Sindlesham to the south."*

& Page 12-36

Operation

"12.6.10 *Additional noise barriers have been incorporated into the Scheme, as follows:*

- (a) *E/B carriageway, chainage 48950m to 49020m, height 2m*
- (b) *E/B carriageway, chainage 49020m to 49070m, height 2m (on bridge)*
- (c) *E/B carriageway, chainage 49070m to 49150m, height 2m*
- (d) *W/B carriageway, chainage 49020m to 49070m, height 2m (on bridge)*

12.6.11 *Additional low-noise surfacing has been incorporated into the Scheme, as follows:*

- (e) *E/B carriageway, chainage 47080m to 47510m*
- (f) *E/B carriageway, chainage 48040m to 4 8520m*
- (g) *E/B carriageway, chainage 48680m to 49140m*
- (h) *E/B carriageway, chainage 53650m to 54270m*
- (i) *W/B carriageway, chainage 46850m to 46940m*
- (j) *W/B carriageway, chainage 53650m to 54270m"*

2.8 *I have estimated the position using drawing M4-PEIR_Drawing_04-1_Scheme-Plan_Sheet-01-19_J12-J10.pdf Sheet 16 and feel that it would mitigate the noise issue more effectively for*

us if the noise barriers were extended by a minimum 50m to the west on the E/B carriageway, from chainage 49150m to 49200m. In addition we feel the additional low-noise surfacing should also be extended by a minimum of 50m, again on the E/B carriageway from chainage 49140m to 49190m. – It is my understanding that it is now intended to lay low-noise surfacing throughout the scheme.

Highways England Comment

- 2.8.1 It is confirmed that low noise surfacing across all lanes, along the complete extent of the Scheme, will be provided.
- 2.8.2 The proposed noise mitigation for the Scheme is discussed in Section 2.6 above. As addressed in paragraph 2.6.7 above, these properties on Mill Lane will experience noise reductions with the Scheme in operation with the proposed mitigation and therefore there is no need to extend these noise barriers by 50m to mitigate the effects of the Scheme
- 2.8.3 There is the potential to improve further the noise climate within the Scheme corridor through enhanced mitigation, as noted in paragraph 12.4.112 of the ES.
- 2.8.4 A quantitative assessment of this enhanced mitigation strategy is currently being carried out (the barriers at Mill Lane form part of this enhanced mitigation strategy). The quantitative assessment is based on a detailed cost / benefit analysis, the outcome of which will determine whether additional barriers (or replacement barriers) are provided to specific areas along the Scheme. The results of that assessment, and the results of the assessment of the landscape and visual impact of any additional noise barriers proposed, will be provided to the Examination in due course.

Page 8-10

Visual Amenity

"8.4.5 Visual receptors, or those who may experience a change in view as a result of the Scheme, principally comprise occupants of residential properties (largely within the urban areas of Reading, Wokingham, Maidenhead, Slough, West Drayton, and Hayes), users of business and institutional properties (such as schools), users of Public Rights of Way ("PRoW")/recreational routes (including National Trails/National Cycle Routes) and recreational access land, and transport routes in the vicinity of the M4. The locations of

visual receptors are shown on Drawing 8.2: Visual Effects Drawing ("VED"), Sheets 1 to 16, in Volume 2.

Visual sensitivity has been attributed to visual receptors within the study area in accordance with IAN 135/10. Occupants of residential properties and users of PRoW/other recreational routes/recreational access land are attributed high visual sensitivity. Institutional buildings (such as schools) are attributed moderate visual sensitivity. Users of business properties and transport routes are considered to have low sensitivity. The VES, Appendix 8.3 in Volume 3, sets out the sensitivity of the specific receptors identified."

Question

2.9 Why do our properties not appear in Appendix 8.3 Volume 3, Visual Effects Schedule- Residential Properties? This is, in our opinion a significant oversight, which could, if left unresolved, have an extensive impact on our enjoyment of our property. Please refer to the beginning of this letter, which explains in detail our property location, proximity to the M4 and the comments around the ZVI line.

Highways England Comment

2.9.1 Paragraph 8.2.3 of the ES identifies that the ZVI broadly defines the approximate area within which the Scheme will be visible. As shown on Figure 8.2 Sheet 5, the properties at Waterside and Hillside lie at the edge of the ZVI and have therefore been included as visual receptors within the visual effects assessment (see reference 5.1.6 in Appendix 8.3 of the ES). This assessment reports that views to the Scheme, from these properties, will be partially obstructed by the proposed noise barriers and that views will be filtered (i.e. not entirely screened) by existing retained vegetation, resulting in slight adverse visual effects.

Visual Effects Schedule – Residential Properties (Sensitivity: High)							
Ref.	Address; Description; Approximate Distance from M4 Centreline	No	Existing View (Summer)	Existing View (Winter) - If Different from Summer	Construction Period	Opening Year (Winter)	Design Year (Summer, 15 Years after Opening)

5.1.6	Avenue Bungalow, Waterside & Hillside, Mill Lane, 2 storey; 25m	3	Heavily filtered views to traffic on M4 through embankment vegetation.	As for summer but with reduced filtering effect from vegetation.	Filtered winter views to site clearance / installation of noise fencing during construction; Moderate Adverse; Moderate Adverse	Filtered winter views to high sided vehicles above noise fencing ; Slight Adverse; Slight Adverse	Filtered winter views to high sided vehicles over noise fencing; Slight Adverse; Slight Adverse
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2.9.2 Page 8-18

Visual Amenity

"8.6.4 Visual receptors within the study area for this stretch of the Scheme include residential properties within areas of settlement including Whitley Wood, Shinfield, Lower Early, and Sindlesham, together with individual properties outlying Reading to the south (generally residential properties); users of recreational routes, and transport routes (including minor roads to the south of Reading). The locations of visual receptors are shown on Drawing 8.2 (Sheets 3 to 5) in Volume 2 and described within Appendix 8.3: VES in Volume 3. Viewpoint locations within the Study Area for this section of the Scheme are also shown on Drawing 8.2 and illustrated on Drawing 8.3 in Volume 2."

& Page 8-20

Visual Amenity

"8.6.13 The effects in relation to specific visual receptors are set out in the VES (Appendix 8.3) in Volume 3 and shown on Drawing 8.2 (Sheets 3 to 5) in Volume 2. As a result of the high level of vegetation within the vicinity of this section of the M4 corridor, views of the Scheme are limited and, where visible, the Scheme components will generally be seen where highway infrastructure is an established part of the view – particularly where on embankment near junction 10. The significance of visual effects range from neutral to moderate adverse, with the majority of individual scores falling within the slight adverse category. On balance, it is considered that the overall significance of visual effect will be Slight Adverse. In particular, moderate effects are anticipated to occur at properties in close proximity to gantry proposals, subject to the extent of vegetation clearance. These properties are located at Old

Whitley Wood, in Whitley Wood, and off King Street Lane, Sindlesham - refer to Drawing 8.2 (Sheets 3 and 5) in Volume 2."

Question

- 2.10 *Will the Visual Amenity effects that impact our properties be re-investigated and mitigations re-assessed in light of the issues I have raised in the first part of this letter (namely issues around our properties not appearing in the Appendix 8.3 Volume 3, Visual Effects Schedule- Residential Properties and the incorrect placement of the ZVI line ?*

Highways England Comment

- 2.10.1 As stated in the response to paragraph 2.9 above, the properties of Waterside and Hillside on Mill Lane have been included in the Scheme's landscape and visual impact assessment. Therefore the visual amenity effects will not require re-assessing.
- 2.11 *We note that it is intended to install additional noise barriers (as mentioned above in ; - Page 4-14, Improving a Traditional Motorway: Environmental Barriers). These will go a significant way to providing us with a reasonable degree of visual privacy from vehicle drivers & passengers using the motorway.*
- 2.12 *As previously mentioned we have an unobstructed view of the motorway from the rear, (as well as from the side of Hillside), of our properties/bedroom windows/back door/gardens and the current hard shoulder lies approximately 2m (in elevation) above our rear bedroom windows.*
- 2.13 *This means that any traffic using the hard shoulder (especially trucks and vans which have higher cabs/seating and others using the current lane 1) can easily see into our rear bedrooms etc., this issue has been highlighted recently due to the current roadwork repair scheme, which has been using the hard shoulder as a running lane.*
- 2.14 *A mitigation that we feel would prevent this would be to raise the Noise Barrier from the 2m height mentioned under item 12.6.10 (Page 12.36) to 2.4m in height to give us the visual privacy that we should enjoy in our properties reducing the likelihood of truck drivers/passengers being able to see into our properties.*

Highways England Comment

- 2.14.1 As stated in the response to paragraph 2.6, it is anticipated that the Scheme will result in a slight adverse effect on the property's visual amenity and a limited change in privacy when compared to the present situation. On this basis the effects reported in the ES on visual amenity would not warrant an increase in the height of the proposed noise barrier.