

EDWARD KEATING

WRITTEN REPRESENTATION

HIGHWAYS ENGLAND RESPONSE

Dear sir or madam

Please see some concerns over the proposed M4 expansion near my home on the Myrke

1. *Sound barrier running on the M4 near the Myrke in the plans should be elongated existing tree buffer should be kept.*

Highways England Comment

- 1.1 The proposed sound barrier referred to in the representation is currently 150 m long and 2.4 m tall and is shown on Sheet 12 of Drawing 12.2 (Application Document reference 6-2). The length of the sound barrier was selected so that no properties would experience a significant noise increase as a consequence of the Scheme. With this mitigation in place, the Myrke will experience noise reductions with the Scheme in operation. These noise reductions are shown in Sheet 12 of Drawing 12.4 for the short-term and in Sheet 12 of Drawing 12.5 for the long term. Given the estimated reductions in noise levels, it is not proposed to extend this barrier as part of the Scheme mitigation.
 - 1.2 As described within Annex A2 (Sheet 23) and Vegetation Clearance and Annex A1 (Sheet 23) of the Engineering and Design Report (“EDR”) (Application Document Reference Number 7-4), temporary vegetation clearance will occur between the Myrke and the M4 carriageway. Replacement planting will be provided at this location on any cleared residual land between the 2.4m high environmental barrier and the Myrke.
2. *Footpath connecting the Myrke to the Datchet road winds along a large soundproofing bank of earth this should remain and the footpath linked to the new Datchet road needs to be lit and small tree lined.*

Highways England Comment

- 2.1 The existing footpath will be retained in its current position and, as detailed on Sheet 10 of Drawing 4.2 of the ES (Application Document Reference 6-2), a new link

will be provided from the new Datchet Road embankment to the existing public right of way. The earth bank referred to in the representation will also remain in its present location as shown on Annex A2 (Sheet 23), Vegetation Clearance and Annex A1 (Sheet 23) of the Engineering and Design Report (Application Document Reference 7-4). Lighting will be provided to the new section of footpath but not to the existing section of footpath due to potential additional visual intrusion on residential properties, including those at the Myrke. The detailed design will be developed in consultation with Slough Borough Council and new woodland planting across the area which is presently occupied by the existing Datchet Road and its footways will be provided following construction (see Annex A1 (Sheet 23) Environmental Masterplan of the EDR (Application Document Reference 7-4).

3. *Construction sites should be identified and time limits set on how long they can be used.*

Highways England Comment

- 3.1 Construction compounds and the sites for the construction of specific works for the Scheme have been identified and are shown on the land plans submitted with the Application (Application Document Reference 2-2). In relation to time periods during which construction compounds will be used, section 5.5 of the Outline Construction Environmental Management Plan (“CEMP”) (Application Document Reference 6-3, Appendix 4.2A). Paragraph 5.5.3 b) states that, subject to the development of the detailed construction programme, other than compound 5 (which is required for the full duration of the Scheme), other compounds may only be required for part of the overall construction period while the works in the adjacent area are undertaken. Indicative time scales for the construction of the works (and therefore the time limits for use of the specific works construction sites and the compounds) are provided in CEMP (Application document reference 6-3) ES-Appendices_04-1-ConstructionProgramme and EDR Annex B. Highways England has also provided further information on the necessity of the compounds and their timing in its response to the Examining Authority's First Written Question CA9.2.

4. *Anti flooding measures should be added to vulnerable areas.*

Highways England Comment

- 4.1 Highways England confirms that measures to ensure that the Scheme will have no detrimental impact on existing flood risk at any location, including those that are

already vulnerable to flooding, have been incorporated within the design of the Scheme.

4.2 With regard to managing surface water flood risk, measures have also been incorporated into the design of the Scheme to manage flood risk from this source. The drainage design (described in paragraphs 1.2.1 to 1.2.3 of the Drainage Strategy Report (Application Document Reference 7-5)) incorporates attenuation at key locations in the form of oversized pipes/underground tanks to ensure that rates and volumes of highway runoff continue to discharge at existing established rates. Furthermore, areas where repairs or replacement of drainage infrastructure is needed will be identified and work undertaken to improve upon the existing functionality of the system, which will also minimise the risk of flooding, as stated in paragraph 3.1.17 of the Drainage Strategy Report (Application Document Reference 7-5).

4.3 The Scheme crosses the floodplain of a number of rivers. The commitment to provide mitigation in areas where the Scheme encroaches into the floodplain, specifically between junctions 6 and 5 (i.e. local to the Myrke) is stated in paragraph 5.1.45 of the Flood Risk Assessment report (Application Document Reference 5-3). Where works result in a loss of storage volume for floodwaters, this will be compensated for by re-profiling land or removing parts of existing embankments, within the Order Limits, to create areas that will hold the same volume of floodwater storage as that lost, with the compensation storage area being created first (i.e. before any storage is lost). Highways England have agreed this approach to mitigating fluvial flood risk with the Environment Agency to ensure that there is no increase in baseline (existing) flood risk throughout the Scheme and, specifically, locally from the River Thames or Jubilee River at the Myrke. The agreement of the Environment Agency is reflected in the Statement of Common Ground which has been issued by Highways England to the Environment Agency for signature following their meeting on 28 October 2015.

5. *Given the amount of demolition involved in taking down the Datchet road bridge properties in the Myrke should be given a structural survey before work begins and after to assess possible impact.*

Highways England Comment

5.1 It is normal practice to carry out initial structural surveys, both before and after the works, of any properties that could possibly be significantly affected by ground borne vibration from the works

- 5.2 Section 12 of the Outline Construction Environmental Management Plan (“CEMP”) details the proposed management of noise and vibration during the works. Paragraphs 12.6.11 to 12.6.18 detail the contractor’s approach to protecting buildings from the effects of ground borne vibration, including the identification of any buildings requiring structural surveys pre and post construction works. The CEMP is secured under Requirement 8, Schedule 2 of the DCO, a draft of which is provided in the DCO Application (Application Document Reference 3-1).
- 5.3 The majority of the works to construct the new bridge(s) will create very little vibration. However, the bridge demolition and certain other works may have potential to cause vibration including installation of sheet piles when constructing the new foundations and when placing and compacting viaducts.
- 5.4 Construction vibration impacts are addressed in paragraphs 12.4.63 to 12.4.68 (and associated Tables 12.13 and 12.14) in Chapter 12 of the ES (Application Document Reference 6-1). Stand-off distances for piling and ground compaction works are provided, outside of which distances vibration impacts should not be significant. Tables 12.13 and 12.14 from the ES are reproduced below.

Stand-off distances for cosmetic building damage

| Activity | Stand-off distance (m) |
|-------------------|---------------------------|
| Impact Piling | 15 |
| Vibratory Piling | 5 |
| Ground Compaction | 5 |

Stand-off distances for human response

| Piling method | Stand-off distance (m) |
|-------------------|---------------------------|
| Impact Piling | 45 |
| Vibratory Piling | 35 |
| Ground Compaction | 25 |

5.5 Any construction activities likely to cause significant ground vibration will be subject to further, detailed assessment prior to the works, and the method chosen will seek to keep vibrations to acceptable limits in order to minimise disturbance to residents and to prevent damage to residents' properties and other infrastructure.

6. *Bringing the M4 closer to the bottom of the Myrke would require additional crash or safety barriers in case of car accidents coming off the road*

Highways England Comment

6.1 The level of Vehicle Restraint System ("VRS") provision is determined by undertaking the Road Restraint Risk Assessment Process ("RRRAP"). This assesses the risk of collisions and therefore the need for VRS, based on a number of factors such as hazards alongside the motorway, traffic flows and the percentage of heavy goods vehicles.

6.2 Currently the M4, adjacent to the Myrke has a VRS present. However, a further RRRAP assessment will be undertaken during the detailed design stage of the Scheme to determine whether any additional VRS provision is required in this location. This is secured under Requirement 25, Schedule 2 of the draft Development Consent Order ("DCO") (Application Document Reference 3-1).