

M4 JUNCTIONS 3 TO 12 SMART MOTORWAY

**The M4 Motorway (Junctions 3 to 12)(Smart Motorway)
Development Consent Order 201[]**

Planning Inspectorate Scheme Reference: TR010019

STATEMENT OF COMMON GROUND

between

(1) HIGHWAYS ENGLAND

and

(2) THE ROYAL BOROUGH OF WINDSOR AND MAIDENHEAD

STATEMENT OF COMMON GROUND

This Statement of Common Ground has been prepared and agreed by (1) Highways England Company Limited and (2) the Royal Borough of Windsor and Maidenhead.

Signed



**Lynne Stinson
Project Manager**

on behalf of Highways England

Date: 6 November 2015

Signed



**on behalf of the Royal Borough of
Windsor and Maidenhead**

Date:

9/11/2015

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1 Introduction

Purpose of Statement of Common Ground

- 1.1 This Statement of Common Ground ("SoCG") has been prepared in respect of an application ("Application") made by the Highways Agency (which has now become the "Highways England Company Limited", known as "Highways England") to the Secretary of State for Transport ("Secretary of State") for a Development Consent Order ("DCO") under section 37 of the Planning Act 2008 ("PA 2008").
- 1.2 The draft DCO is referred to as The M4 Motorway (Junctions 3 to 12) (Smart Motorway) Development Consent Order 201[*] (the "Order"). The Order would grant powers to improve the M4 motorway ("M4") to a smart motorway between junction 3 (Hayes) in west London and junction 12 (Theale), which is near Reading (the "Scheme").
- 1.3 Guidance on the purpose and possible content of SoCGs is given in paragraphs 58 - 65 of the Department for Communities and Local Government's "Planning Act 2008: Guidance for the examination of applications for development consent" (March 2015).
- 1.4 Paragraph 58 confirms the basic function of SoCGs:

"A statement of common ground is a written statement prepared jointly by the applicant and another party or parties, setting out any matters on which they agree. As well as identifying matters which are not in real dispute, it is also useful if a statement identifies those areas where agreement has not been reached. The statement should include references to show where those matters are dealt with in the written representations or other documentary evidence."

Parties to this Statement of Common Ground

- 1.5 This SoCG has been prepared by (1) Highways England as the Applicant and (2) the Royal Borough of Windsor and Maidenhead.
- 1.6 The Application was made by the Highways Agency. On 1 April 2015, the Highways Agency became a government-owned Strategic Highways Company, limited by shares, with the Secretary of State as sole shareholder. Highways England is the new company. It is established as the highway authority in England for the strategic road network and has the necessary powers and duties to operate, manage, maintain and enhance the network. Regulatory powers remain with the Secretary of State. The

legislation establishing Highways England made provision for all legal rights and obligations of the Highways Agency, including in respect of the Application, to be conferred upon or assumed by Highways England.

- 1.7 The Royal Borough of Windsor and Maidenhead is the local planning authority and council responsible for Windsor and Maidenhead and is a Royal Borough of Berkshire.

Summary of the Scheme

- 1.8 The M4 is the main strategic route between London and the west of England, and on to South Wales. Major towns and cities along the M4 include London, Reading, Swindon, Bristol, Newport, Cardiff and Swansea.

- 1.9 The M4 between junctions 3 and 12 carries over 130,000 vehicles per day, and more in places. At peak times, traffic flows on many links are close to or exceed the total flow that the link is designed to handle. This causes heavy congestion on the M4, which can lead to unpredictable journey times.

- 1.10 The Scheme will help to relieve congestion by permanently converting the hard shoulder of the M4 to a running lane and using technology to vary speed limits and manage traffic. Signs and signals will be used to inform drivers of conditions on the highway network, when and where variable speed limits are in place, and when lanes are closed.

- 1.11 The Scheme is some 51 km (32 miles) in length and will have a number of principal elements:

1.11.1 conversion of the hard shoulder to a permanent running lane and, where no hard shoulder is in place at present, the construction of a new lane. This will mainly take place between junction 4b and junction 8/9;

1.11.2 replacement of overbridge structures where portals are too narrow to accommodate the improved motorway;

1.11.3 extension of underbridges and other structures such as culverts and subways to accommodate the improved motorway;

1.11.4 changes to junctions and slip roads needed to accommodate traffic joining and leaving the improved motorway, and to allow use of the hard shoulder as a running lane, as well as allowing "through junction running" ("TJR");

1.11.5 provision of new gantries and signs to allow the motorway to function as a smart motorway with a variable speed limit, and to provide messages to road users; and

1.11.6 other infrastructure needed for the improved motorway, such as Emergency Refuge Areas (“ERAs”), enhanced communication systems, closed circuit television (“CCTV”) and electrical supplies, as well as works to accommodate statutory undertakers' apparatus and other parties who may be affected by the Scheme.

1.12 The works are more particularly described in Part 1 of Schedule 1 of the Draft DCO (Application Document Reference 3.1).

1.13 The Application was submitted to the Planning Inspectorate on 30 March 2015, and the Planning Inspectorate, on behalf of the Secretary of State, accepted the Application on 27 April 2015.

Structure of this Statement of Common Ground

1.14 This SoCG has been prepared for the purposes of the Examination to be held by the Secretary of State in accordance with PA 2008. In this SoCG, Highways England has provided a summary of its assessment for each issue addressed, as recorded in the Application documentation and subsequent reports.

1.15 Throughout this SoCG the phrase “It is agreed.....” is used as a precursor to any point of agreement that has been specifically stated to be agreed between (1) the Applicant and (2) the Royal Borough of Windsor and Maidenhead. The phrase “It is not agreed....” is used as a precursor to any point that (1) the Applicant and (2) the Royal Borough of Windsor and Maidenhead have not yet agreed. Points that are “not agreed” will be the subject of ongoing discussion wherever possible to resolve, or refine, the extent of disagreement between the parties.

1.16 This SoCG considers the items raised by the Royal Borough of Windsor and Maidenhead in their Planning Act 2008 Section 42 consultation response on the Application (in the absence of a relevant representation). The SoCG has also been drafted having regard to the list of principal issues set out at Annex B of the Examining Authority's Rule 6 letter dated 7 August 2015. However, only the principal issues of concern to the Royal Borough of Windsor and Maidenhead are addressed in this SoCG. Any of the principal issues identified which are not specifically referenced in

this SoCG are to be taken to be agreed between the parties.

1.17 This SoCG considers the following items:

1.17.1 Traffic impact

1.17.2 Road safety

1.17.3 Construction

1.17.4 Air quality (Bray / M4 Air Quality Management Area)

1.17.5 Noise and viabration

1.17.6 Lighting; and

1.17.7 Public Rights of Way.

1.18 This SoCG considers data and assesses them in respect of the above topics and the methodologies set out in:

1.18.1 The Environmental Statement ("ES") (Application Document Reference 6.1).

1.19 Where items in the ES (Application Document Reference 6.1) and/or the accompanying technical reports are agreed, this is stated with the relevant document reference. Where items of data are new or represent an agreed variation presented in a technical report or other document, then a list of those documents is provided in Appendix 1 to this SoCG.

1.20 The assessments include a combination of desk based studies, site investigations and technical assessment work. The ES (Application Document Reference 6.1) sets out mitigation and remedial measures where appropriate, concluding with a summary of the residual effects following mitigation. [The mitigation referred to in the ES (Application Document Reference 6.1) has been refined and enhanced during the course of the Examination as set out in this SoCG and Highways England's submissions to the Examining Authority.]

2 Overview of Previous Engagement

2.1 A summary of key meetings, workshops and consultation undertaken between (1) Highways England and (2) the Royal Borough of Windsor and Maidenhead can be found in the following tables:

Table 2.1.1: Pre-application Engagement

Date	Form of Contact	Summary
10 March 2014	Invitation to attend a Preview Public Information Exhibition, to be held on 18 March 2014	Invitation to a Preview Public Information Exhibition as part of initial stakeholder engagement and information exercise
18 March 2014	Preview Public Information Exhibition	Did not attend, but a representative from the Royal Borough of Windsor and Maidenhead did attend the Public Information Exhibition held at Winnersh Community Centre on 28 March 2014
17 April 2014	Highways Agency Information Line ("HAIL") query raised by the Royal Borough of Windsor and Maidenhead	"Are you intending to place low-noise surfacing on the widened roads over bridges between J7 and J10 on the M4? If not, what other noise mitigation measures are you taking between these junctions?"
22 April 2014	Email confirmation from Highways Agency of receipt of HAIL query received on 17 April 2014	Response to be provided in due course
8 May 2014	HAIL query raised by the Royal Borough of Windsor and Maidenhead with regard to a query from a resident	Resident asked whether a low-noise road surface was being laid and whether any other noise mitigation measures were being put in place around Junction 8/9 specifically
19 May 2014	Email response from Highways Agency to HAIL queries raised on 17 April 2014 and 8 May 2014	A noise assessment is being undertaken as part of the environmental assessment process. Potential options to

Date	Form of Contact	Summary
		mitigate noise are also being investigated. Further information will be available following completion of the noise assessment works during the second phase on consultation due to commence in the Autumn
25 June 2014	Traffic Modelling Workshop and Scheme Presentation organised in conjunction with Thames Valley Berkshire Local Enterprise Partnership	Information meeting to provide Berkshire authorities traffic representatives with an overview of the Scheme and the traffic modelling
9 July 2014	Letter from Highways Agency requesting suitable dates for a pre-application notification meeting to discuss the Scheme proposals	Request for suitable dates when Highways Agency could meet with the Royal Borough of Windsor and Maidenhead during July and August 2014 to discuss the Scheme proposals and the local planning authorities involvement in the DCO process
8 August 2014	Invitation to attend an Environmental Information Workshop – Scoping (1), to be held on 20 August 2014	Invitation to an information meeting to discuss the Environmental Impact Assessment (“EIA”) Scoping Report
20 August 2014	Environmental Information Workshop – Scoping (1)	Did not attend
1 September 2014	Invitation to attend an Environmental Information Workshop – Scoping (2), to be held on 12 September 2014	Invitation to an information meeting to discuss the EIA Scoping Report
10 September 2014	Scoping Opinion Response	Key issue was in relation to cultural heritage
12 September 2014	Environmental Information Workshop – Scoping (2)	Did not attend
18 September 2014	Meeting between Highways Agency and	Information meeting to discuss the Scheme and planning related issues.

Date	Form of Contact	Summary
	local planning authorities	Representative from the Royal Borough of Windsor and Maidenhead attended
3 October 2014	Formal Issue of Draft Statement of Community Consultation for review under Section 47 of the Planning Act 2008	Formal consultation on Draft Statement of Community Consultation
23 October 2014	Letter from Highways Agency requesting completion of land ownership confirmation questionnaire	Questionnaire to obtain confirmation that the details previously provided regarding the Scheme are still valid and to offer the opportunity to provide any updates
27 October 2014	Written response from the Royal Borough of Windsor and Maidenhead to the draft Statement of Community Consultation	No issues raised
3 November 2014	Response to request for land ownership confirmation questionnaire	Completed questionnaire on request for land ownership details within the Royal Borough of Windsor and Maidenhead
10 November 2014	Planning Act 2008 Section 47 Notification Letter	Details of the pre-application consultation to be held between 10 November and 21 December 2014
10 November 2014	Planning Act 2008 Section 42: Notice of statutory pre-application consultation period	Notification of the formal pre-application consultation between 10 November and 21 December 2014 about the Scheme in accordance with Section 42 of the Planning Act 2008. Delivery of the Preliminary Environmental Information Report and Non-Technical Summary
18 November 2014	Public Exhibition Preview Event	Representative from the Royal Borough of Windsor and Maidenhead attended

Date	Form of Contact	Summary
3 December 2014	Letter requesting information on cumulative developments	Request for details on relevant developments within 1km of the Scheme
3 December 2014	Email request for details on the Borough Local Plan	Required information on allocated sites within 1km of the Scheme
3 December 2014	Email response received from the Royal Borough of Windsor and Maidenhead to request for details on the Borough Local Plan	Link to Borough Local Plan and additional information provided
4 December 2014	Email to the Royal Borough of Windsor and Maidenhead to confirm land categories within the Local Plan	Request for confirmation of land categories within the Local Plan
4 December 2014	Email receipt of maps provided by the Royal Borough of Windsor and Maidenhead showing allocations within 1km of the Scheme from the adopted Local Plan from 1999	Receipt of maps
19 December 2014	Planning Act 2008 Section 42 Consultation Response	Key issues raised were air quality and noise. The Royal Borough of Windsor and Maidenhead would not support the Scheme in its current form, with no control measures to reduce the operational air quality impact
6 January 2015	Invitation to attend an Environmental Information Workshop – Preliminary Environmental Information Report, to be held on 20 January 2015	Invitation to an information meeting to discuss the Preliminary Environmental Information Report
20 January 2015	Environmental Information Workshop – Preliminary Environmental Information Report	Did not attend
11 February 2015	Email requesting confirmation on	Clarification requested that the viewpoints

Date	Form of Contact	Summary
	viewpoints proposed for the ES	selected for the Preliminary Environmental Information Report are acceptable, and therefore can be used for the purposes of the ES. No response received
17 February 2015	Email from Highways Agency requesting potential dates for briefing meeting	Request for suitable dates to be provided by the Royal Borough of Windsor and Maidenhead
17 February 2015	Email response from the Royal Borough of Windsor and Maidenhead with regard to potential dates for briefing meeting	Advised that the Head of Planning position has been dispensed with. Alternative contact details provided
17 February 2015	Additional email sent to the revised contact for the Royal Borough of Windsor and Maidenhead requesting potential dates for briefing meeting	Request for suitable dates to be provided by the Royal Borough of Windsor and Maidenhead
25 February 2015	Letter from Highways Agency requesting confirmation of information	Request for confirmation that the information on the Royal Borough of Windsor and Maidenhead held by Highways Agency was correct at the time of writing as outlined in the Book of Reference. Request for confirmation of information by 6 March 2015
9 March 2015	Briefing meeting between Highways Agency and the Royal Borough of Windsor and Maidenhead	Presentation given by Highways Agency, followed by a question and answer session. Topics covered included air quality (Bray Air Quality Management Area) and noise (Windsor Road Overbridge)
9 March 2015	Email from Highways Agency containing details of documentation and main contacts for the	As requested by the Royal Borough of Windsor and Maidenhead in the briefing meeting held on 9 March

Date	Form of Contact	Summary
	Scheme	2015
10 March 2015	Response from the Royal Borough of Windsor and Maidenhead to request for land ownership confirmation questionnaire	Completed questionnaire on request for land ownership details for the Royal Borough of Windsor and Maidenhead

Table 2.1.2: Post-application Engagement

Date	Form of Contact	Summary
2 April 2015	Email from the Royal Borough of Windsor and Maidenhead confirming adequacy of consultation	Confirming that Highways England has complied with the duties to consult with the local community and to publicise
5 May 2015	Email from Highways England issuing the minutes of the briefing meeting held on 9 March 2015	Minutes of the briefing meeting held on 9 March 2015
5 May 2015	Email requesting access for ecological surveys	Access request for ecology surveys within the Royal Borough of Windsor and Maidenhead land
6 May 2015	Email request from Highways England for a local deposition point	Requesting confirmation for the use of the Royal Borough of Windsor and Maidenhead facilities as a deposition point for Scheme consultation documents from 21 May 2015
6 May 2015	Letter from Highways England to the Royal Borough of Windsor and Maidenhead	Provision of link to the Consultation Report
8 May 2015	Email from the Royal Borough of Windsor and Maidenhead in response to email request from Highways England on 6 May 2015	Agreement from the Royal Borough of Windsor and Maidenhead for the use of their facilities as a deposit point for the DCO documentation
12 May 2015	Email response from the Royal Borough of Windsor	No objections

Date	Form of Contact	Summary
	and Maidenhead to email on 5 May 2015 requesting access for ecological surveys	
15 May 2015	Email confirmation from Highways England of deposit delivery date	Confirm delivery on either Tuesday 26 May 2015 or Wednesday 27 May 2015
22 May 2015	Email request from Highways England for Statement of Common Ground ("SoCG") meeting dates	Requested availability for a number of potential meeting dates in June 2015 to discuss the draft SoCG
27 May 2015	Email from Highways England providing preview of Section 56 notice template to landowners	Copy of the Section 56 letter sent to the relevant local planning authorities for information and advising where application documents are available for inspection
28 May 2015	Section 56 notice of acceptance of an application for a Development Consent Order	Copy of the Section 56 letter sent to the relevant local planning authorities for information
5 June 2015	Repeat email request from Highways England for SoCG meeting dates (originally requested 22 May 2015)	Requested availability for a number of potential meeting dates in June 2015 to discuss the draft SoCG
8 June 2015	Letter from Highways England regarding freehold land interests	Requesting confirmation of whether the Royal Borough of Windsor and Maidenhead is willing to enter into negotiating terms relating to the purchase of land
9 June 2015	Email from the Royal Borough of Windsor and Maidenhead Local Access Forum (LAF) to Highways England	Request for information regarding potential impacts of the scheme on Public Rights of Way (PRoW)
11 June 2015	Email from Highways England to the Royal Borough of Windsor and Maidenhead LAF	Detailed response to email dated 9 June 2015 identifying potential impacts of the scheme on PRoW

Date	Form of Contact	Summary
23 June 2015	Repeat email request from Highways England for SoCG meeting dates (originally requested 22 May 2015)	Requested availability for a number of potential meeting dates in June and July 2015 to discuss the draft SoCG. Draft agenda for the meeting attached
6 July 2015	Telephone call from the Royal Borough of Windsor and Maidenhead to Highways England regarding the scheme	A new officer requested background information on the scheme and clarification regarding the planned works undertaken within their area. Highways England raised the issue of the outstanding SoCG meeting and the Royal Borough of Windsor and Maidenhead agreed to look into this
7 July 2015	Email from Highways England to the Royal Borough of Windsor and Maidenhead confirming the discussion of 6 July 2015	Email providing background on the Scheme, DCO and update that SoCG meetings had been offered but no reply received. Repeat request for SoCG meeting dates (originally requested 22 May 2015)
10 July 2015	Email discussion between Highways England and the Royal Borough of Windsor and Maidenhead to agree the 'designated officer'	Royal Borough of Windsor and Maidenhead's designated officer confirmed
15 July 2015	Email from Highways England to the Royal Borough of Windsor and Maidenhead	Requested the Royal Borough of Windsor and Maidenhead if they had any further queries relating to traffic modelling work
4 August 2015	Meeting between Highways England and the Royal Borough of Windsor and Maidenhead	Discussion relating to the preparation of the draft SoCG
7 September 2015	Email from Highways England to the Royal Borough of Windsor and Maidenhead	Provided minutes of the SoCG meeting held 4 August 2015. Links included to: the Book of Reference; Land Plans; Engineering and Design Report; ES

Date	Form of Contact	Summary
		Chapter 15; and Appendices to ES Chapter 15
11 September 2015	Email from Highways England to the Royal Borough of Windsor and Maidenhead	Provided draft SoCG for review
24 September 2015	Email from Highways England to the Royal Borough of Windsor and Maidenhead	Request for progress update on SoCG review
29 September 2015	Email from Royal Borough of Windsor and Maidenhead to Highways England	Provided draft note of the response from RBWM to the M4 Smart Motorway scheme
29 September 2015	Email from Highways England to the Royal Borough of Windsor and Maidenhead	Requested confirmation of the purpose of the note and whether comments on the draft SoCG would be provided. Also clarified that RBWM's comment in the draft note that ERAs were spaced at 2.5km was incorrect and the actual spacings are lower. Confirmed that a comparative safety assessment had been undertaken and provided links to the appropriate application documents and factsheets on the Highways England website.
5 November 2015	Deadline III submission by Highways England to the Examining Authority.	Highways England response to the RBWM note received on 29 September 2015
6 November 2015	Email from Highways England to the Royal Borough of Windsor and Maidenhead	Issue of revised SoCG based upon Highways England's Deadline III response to the issues raised in the RBWM note.

2.2 It is agreed that this is an accurate record of the key meetings, workshops and

consultation undertaken between (1) Highways England and (2) the Royal Borough of Windsor and Maidenhead, in relation to the issues addressed in this SoCG.

3 Matters Agreed

3.1 Traffic Impacts

3.2 It is agreed that the scheme will provide additional traffic capacity and more reliable journey times on the M4, where congestion at peak times is spreading to other parts of the day. These improvements will help maintain the Royal Borough of Windsor and Maidenhead's connectivity across the Thames Valley and the wider area, as well as London and Heathrow airport.

3.3 Construction

3.4 It is agreed that construction activities will need to be carefully managed in order to minimise impact upon adjacent residential properties. This includes the construction work compounds and traffic diversions from the motorway onto local roads during construction.

3.5 A construction noise and vibration assessment has been carried out to assess relevant impacts on residents; this is provided in Chapter 12 of the ES (paragraphs 12.4.32 to 12.4.87) and Appendix 12.3 of the ES.

3.6 Section 12 of the outline Construction Environmental Management Plan ("CEMP") (Appendix 4.2A of the ES (Application Document Reference (6-3)) details the contractor's measures for managing noise and vibration during the works. The measures detailed in the CEMP are secured by Requirement 8 of Schedule 2 of the draft Development Consent Order (Application Document Reference 3-1). The strategy to be implemented will be to control of noise and vibration at source (paragraph 12.2.3 of the CEMP). Any construction activities likely to cause significant ground vibration will be subject to further, detailed design and verification prior to commencement of 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.

3.7 In addition, a construction air quality assessment has also been carried out to assess impacts from construction dust and heavy goods vehicles movements; this assessment is provided in Chapter 6 of the ES.

3.8 Section 6 of the outline CEMP details the management of air quality during the works. Mitigation measures may include ensuring that vehicles are well maintained, implementing wheel washing systems and providing dust suppression, via water

spraying, to minimise airborne dust (paragraph 6.2.1 of the CEMP).

- 3.9 Highways England will manage the impact on local residents through the use of good communications. Table 3.1 of the CEMP outlines the responsibilities of the Public Liaison Officer, who will work with local communities and residents to keep them informed on activities that may inconvenience them and to feedback any concerns they have to the contractor. This will provide residents with the opportunity to highlight any issues relating to their properties that have arisen from the construction works.
- 3.10 It is agreed that the decision to provide offline new bridges at A330 Ascot Road, Monkey Island Lane, B376 Datchet Road and Ditton Court Road will reduce traffic disruption during construction for local residents.
- 3.11 It is agreed that the impact upon public rights of way during the construction phase needs to be considered in order to minimise disruption. Highways England has considered the impact of the construction phase upon public rights of way (“PRoW”). The PRoW drawings (Application Document Reference 2-4) show where PRsoW are being temporarily stopped up and where additional proposed sections of PRsoW are to be provided as part of the Scheme. These drawings are supported by the following schedules within the draft DCO: Schedule 3 – Permanent Stopping up of Streets (Streets for which a substitute is to be provided); and Schedule 4 – Temporary Stopping up of Streets.
- 3.12 The impact upon public rights of way is largely associated with the replacement of existing overbridges and the widening of Thames Bray Bridge. Recognising the importance of these public rights of way to local communities, Highways England assessed the impact of the Scheme’s implementation on these local amenities and will continue to consult with local authorities and local access forums to ensure the minimum disruption to local communities throughout the duration of the construction works, as detailed in paragraphs 4.1.1 to 4.1.6 of the outline CEMP.
- 3.13 Air Quality
- 3.14 It is agreed that historically the rates of improvement in air quality and future year projections of declining concentrations have been overestimated. Given the degree of uncertainty about the rate of improvement in air quality it is reasonable to adopt a precautionary approach and consider potential control measure.
- 3.15 Highways England notes that over the last few years the rates of improvement

anticipated by the Department for Environment, Food and Rural Affairs (“Defra”) have not been realised as quickly as anticipated. This is due to the dieselisation of the vehicle fleet to a greater extent than previously anticipated, with the associated higher emissions of NO_x and NO₂, and also because of the gap between the anticipated laboratory based rates of NO_x emissions compared with real world rates of NO_x emissions.

3.16 Highways England has adopted a precautionary approach. The approach utilised in the assessment of future air quality recognises the degree of uncertainty about the rate of improvement in air quality, and therefore Highways England has not assumed that in the future all improvements in air quality (i.e. rates of improvement in vehicle emissions etc.) will occur at the rate anticipated by Defra. In particular, the treatment of future air quality has been considered through the updated air quality advice on the assessment of future NO_x and NO₂ projections known as long term trend (“LTT”) analysis (Interim Advice Note 170/12 v3. Updated air quality advice on the assessment of future NO_x and NO₂ projections for users of DMRB Volume 11, Section 3, Part 1 ‘Air Quality’), which assumes only a portion of improvements in air quality assumed by Defra will occur. This is described in paragraphs 6.2.57 to 6.2.60 of the ES.

3.17 In this approach all modelling is undertaken consistent with Defra emission rates and associated local air quality management tools. The LTT rates of improvement are applied to post-processed Defra based predictions to a more conservative set of results.

3.18 The air quality assessment, presented in Chapter 6 of the ES, has predicted that no significant air quality effects will occur as a result of the Scheme, and thus Highways England has not considered adopting additional control measures in the Scheme.

3.19 Noise and Vibration

3.20 It is agreed that the decision to re-surface the whole of the motorway with low-noise surfacing, rather than just the sections of road to be widened, is welcomed.

3.21 Lighting

3.22 The Royal Borough of Windsor and Maidenhead agrees with Highways England’s decision to not introduce lighting on sections of the motorway through the Borough that are presently unlit on environmental grounds. They also agree with the decision to introduce LED lighting that can be dimmed and controlled remotely in order to reduce

environmental impact.

3.23 It is agreed that the road safety implications of any changes to the lighting are given due consideration. Highways England has considered the road safety implications of the Scheme's lighting proposals. Lit signs and gantries will be present throughout the Scheme. The design standard for smart motorways ALR (IAN 161) advises that for smart motorway schemes where the motorway is not currently lit, road lighting shall not be considered and therefore no road lighting has been provided between J8/9 and 10. The hazard log assessment undertaken for the Scheme (Hazard Log Report – Annex E of the EDR) includes the assumption that no road lighting will be provided between J8/9 and 10, but still expects an approximate reduction of risk of 18% for the Scheme when compared with the safety baseline (no Motorway Incident Detection and Signalling (queue protection)). When comparing the predicted reduction in risk with the actual M4 J3-12 motorway with MIDAS (10% safety benefit compared to the baseline) the Scheme would still expect to see a reduction in risk of approximately 8%.

3.24 Public Rights of Way

3.25 It is agreed that existing widths of the Thames Path National Trail should be maintained and that any closures should be kept short and convenient.

3.26 The existing path along the banks of the River Thames runs along the eastern bank and passes under the Thames Bray Bridge. Highways England recognise the importance of the trail and the duration of any closures will be kept to the minimum necessary. Closures of the footpath will be required when construction activities have the potential to put the safety of footpath users at risk; examples may include installing steelwork beams or installing and removing parapet temporary works.

3.27 When the new eastern abutment is constructed the current route will become a work site which will extend from the edge of the water and past the face of the existing abutment. To maintain the national trail, a local diversion will be required to route the path away from the construction of the abutment. For the trail to remain open, the only viable option is to route the path on pontoons or a temporary structure in/above the river. In order to arrange this diversion, approval of the appropriate authorities (e.g. Canal and River Trust, Environment Agency) will be sought. Trail diversions and closures will be advertised in advance and will form part of the finalised CTMP for the Scheme.

3.28 The Local Access Forum (LAF) Fast Response Team notes that there are

approximately ten paths which cross the M4 in the borough. They request assurance from Highways England that these paths will be reinstated and put back to the same condition that they are now. Highways England confirms that where the Scheme works impact directly on existing PRowS, the paths will be properly reinstated and returned to their existing condition.

3.29 DCO Requirements

3.30 The Royal Borough of Windsor and Maidenhead has reviewed the draft requirements in Schedule 2 to the draft DCO and agrees that they are appropriate to secure the mitigation and other matters to be addressed in that Schedule.

3.31 There are no further matters that are currently agreed.

4 Matters Not Agreed

4.1 The following matters are not yet agreed and are subject to on-going discussion between Highways England and the Royal Borough of Windsor and Maidenhead.

4.2 Traffic Impacts

4.3 The Royal Borough of Windsor and Maidenhead fundamentally oppose the proposals for a third runway as part of Heathrow expansion due to the adverse environmental impact upon local residents, local businesses, institutions and the tourist trade and therefore would not support the M4 Smart Motorway scheme if it were being introduced to facilitate expansion at Heathrow. Highways England confirms that the M4 junctions 3 to 12 smart motorway scheme (the "Scheme") is not being introduced to facilitate expansion at Heathrow Airport.

4.4 Whilst the additional traffic capacity on the M4 motorway is to be supported, the Royal Borough of Windsor and Maidenhead remains concerned that the traffic impact on motorway junctions, approach roads as well as local roads has yet to be clearly identified. The Council considers that mitigation measures to address these impacts needs to be considered and funding to implement appropriate measures need to be identified. Highways England does not agree that the impact on junctions, approach and local roads has yet to be clearly identified.

4.5 Highways England uses a computer forecasting model for traffic modelling (described in Chapter 2 of the Traffic Forecasting Report, which was provided at Appendix 1 to the Response to Relevant Representations at Deadline I), an approach which is used on all Highways England major schemes. The traffic model takes account of details of the Scheme and of future developments provided by the local planning authorities and Highways England alongside national population and employment forecasts to assess the Scheme and its effects on the surrounding roads (see Section 4.4 of the Traffic Forecasting Report provided at Appendix 1 to Highways England's Response to Relevant Representations submitted for Deadline I).

4.6 The Scheme will provide additional capacity that will reduce congestion together with modern technology to inform drivers and smooth traffic flows on the Scheme, creating an opportunity to provide traffic relief to the surrounding local roads over a wide area beyond the immediate area of the Scheme.

4.7 The results of the traffic modelling that show that the Scheme will result in a reduction

in congestion along the Scheme extent are summarised in paragraphs 4.3.3 and 4.3.4 of the Engineering and Design Report (“EDR”) (Application Document Reference Number 7-3). The effect of the Scheme on local roads is assessed in paragraph 6.1.13 of Chapter 13 of the Environmental Statement (“ES”), Effects on All Travellers (Application Document Reference 6-1). Tables 13.4 and 13.5 of the ES list the roads in the vicinity of the Scheme that are considered to be potentially most affected by the Scheme. The results of the assessment on these routes are set out in Tables 13.27 to 13.29 and summarised in paragraphs 13.8.6 to 13.8.9, concluding overall that the impact is neutral. On that basis, Highways England considers that the traffic impact on approach roads and motorway junctions has been fully identified and assessed.

4.8 As such, and having particular regard to the effects of the Scheme on the local road network, Highways England considers that it is not necessary for further mitigation to be considered or for further funding to be identified.

4.9 Road Safety

4.10 Although the Royal Borough of Windsor and Maidenhead broadly supports the principals of the Smarter Motorway scheme, they have concerns about the full-time replacement of the hard shoulder with emergency refuge areas spaced a 2.5km intervals. The Council considers that a comparative safety assessment based on data from existing similar smart motorway arrangements should be undertaken.

4.11 In relation to the concerns raised regarding the conversion of the hard shoulder into a permanent running lane, Highways England's assessments show that the Scheme will deliver the additional capacity required without compromising overall safety. The Hazard Log Report (Annex E of the EDR (Application Document Reference 7-4)) notes that the Scheme's hazard log is based on the generic Interim Advice Note (“IAN”) 161/13 hazard log, which is a comparative assessment which includes hazard data from other schemes.

4.12 The hazard assessment methodology used to assess the expected safety performance of the smart motorways concept uses evidence (i.e. monitoring data on performance) gathered from the M42 Pilot and more recent operational smart motorway schemes (e.g. hard shoulder running (“HSR”) schemes on the M6 around Birmingham and M62 J25-30). This evidence demonstrates that the use of the hard shoulder, as an additional lane, does not compromise overall safety. It is noted that the Scheme has a different operating regime than the early smart motorway schemes (e.g.

M42 Pilot) as they operated with an HSR operating regime and not all lanes running (“ALR”). However, the early smart motorway schemes have enabled a comparative safety assessment of the use of the hard shoulder as a running lane to be undertaken. The hazard log for the Scheme also takes account of work during the design process from other ALR schemes, e.g. M1 J28–31, M1 J32–35a and M25 J23–27.

- 4.13 Monitoring is currently underway on the first ALR scheme on the M25 J23-27 to measure actual safety performance and compare it with the safety levels before the introduction of ALR. This will provide data to enable a further comparative safety assessment based on evidence from an operational ALR scheme to be undertaken. The monitoring from the first ALR scheme will include data on live lane stoppages and use of emergency refuge areas (“ERAs”). The one year monitoring report will be published by the end of 2015, however this remains a very short timeframe upon which to assess the efficacy of the scheme (a scheme requires three years of validated accident data in order to be confident that it is meeting its safety objective). The results will give an indication of the actual safety level that can be achieved with ALR allowing the hazard log assessment and hazard assumptions for ALR schemes, including the Scheme, to be reviewed and if necessary revised, in line with the monitoring results.
- 4.14 Highways England does not agree that the refuge areas are placed at 2.5km intervals. The average spacing between refuges will be 1.14 miles (1.85km) as detailed in section 2.2 of Annex E of the EDR, which is significantly within the 2.5km maximum spacing outlined with the smart motorways ALR design standard (IAN 161/13).
- 4.15 An assessment for the provision of refuge areas has been undertaken by Highways England which provided the design standard requirement for 2.5km maximum spacing outlined within IAN 161/13. Evidence supporting IAN 161/13 – ‘An Evaluation of the provision of refuge area’ supports the view that many road users will still be able to make it to a refuge area in an emergency, even when the distance is increased. (Ref: http://assets.highways.gov.uk/specialist-information/knowledge-compendium/2011-13-knowledge-programme/MM-ALR_Evaluation_of_the_Provision_of_Refuge_Areas.pdf). The report explains how detailed monitoring of hard shoulder and ERA activity was undertaken soon after the implementation of the M42 Pilot. This work was based on analysis of CCTV images which coincided with a section of the Pilot scheme on which ERAs are located at a nominal spacing of 800m. This monitoring indicated that a wider spacing of ERAs did not compromise the expected use or usefulness of the ERAs. As noted above, the refuge spacing on the Scheme will be significantly less than the IAN

161/13 design standard.

4.16 Construction

- 4.17 In the absence of formal traffic diversions, the Royal Borough of Windsor and Maidenhead are concerned about traffic being displaced onto local roads in order to avoid the motorway during the construction phase. They state that construction related traffic also needs to be considered where this will have an impact upon local roads.
- 4.18 Details of traffic management proposals and construction traffic routing including agreed access and construction routes for the Scheme in each local authority area, will be provided in the Construction Traffic Management Plan (“CTMP”), an outline version of which was provided with the Application in Annex E of CEMP. The final CTMP will be developed in consultation with local authorities to ensure impact to the local network is minimised. This is secured by Requirement 18 of Schedule 2 of the Development Consent Order (“DCO”) (Application Document Reference 3-1).
- 4.19 Access routes for construction traffic will predominantly be via the M4 motorway and main roads on the local road network unless it is considered necessary for other local roads to be used. Any local roads likely to be used in this context will be specified in a revised CTMP to be submitted prior to the close of Examination. The priorities in the approach to construction transport routeing will be: use of the M4 itself for sites and working areas adjacent to the M4 where possible; use of other roads for site establishment for limited periods; use of other roads that are not residential in nature to provide access for working areas including bridge works; and use of residential roads as a last resort.
- 4.20 Access along residential roads will generally be prohibited, although given the nature of the environment in which the Scheme is situated, this may very well be unavoidable. Also, a number of relatively major roads in this densely populated part of England have residential properties along their length. Where residential roads are to be utilised, the residents will be notified of the nature, timing and duration of the works in advance.
- 4.21 The proposed construction compound locations have been selected such that they are located as close to motorway junctions as possible to minimise construction traffic using the local highway network. Access to the bridge construction sites will also be required via the local road network, particularly for site establishment. However, this will be kept to a minimum and access routes will be defined in the final CTMP, which

will be prepared in consultation with stakeholders as provided for at paragraph 2.4.1 of the Outline Construction Traffic Management Plan, Annex E of the Outline CEMP Appendix 4-2A of the ES (Application Document reference 6-3).

4.22 The effects of the proposed traffic management regime and phasing of the works during the construction of the Scheme on road users is described in paragraphs 8.3.1 to 8.3.6 of the EDR. To assess the possible effect of the construction traffic management on users of the M4, the Highways England bespoke software program QUADRO (QUeues And Delays at ROadworks) was run. Analysis of the delays predicted by the program shows that the delays arising from the additional time to travel through the works during the first phase of works reached a maximum predicted journey time extension of 10 minutes in each of the Monday – Thursday peak periods. Only during the Friday PM peak in the westbound direction do journey extensions exceed 10 minutes and queues occur.

4.23 During phase 2 of the works, the capacity of three narrow lanes is exceeded during peak periods between junctions 3 and 4 and between junctions 5 and 6. The initial effect as capacity is reached is that vehicles will start to queue but there is the risk that diversion to other routes may occur. Should all vehicles above the capacity limit choose to divert, the potential level of diversion as assessed by QUADRO is limited in number, totalling 106 vehicles per day, two-way Monday to Thursday between junctions 3 and 4 and a total of 296 vehicles per day, two-way Monday to Thursday between junctions 5 and 6.

4.24 The assessment that a limited amount of traffic diversion will occur during the construction of the Scheme is also reinforced by a comparison of traffic flow data captured during roadworks on the M4 in 2014. Two sets of works were undertaken – resurfacing between junctions 8/9 and 10 and bridge works between junctions 10 and 11, each using 3 narrow lanes of traffic management. Comparisons were made between traffic flows over the period May to September during which the works were carried out, and the same period the previous year using data from Highways England's Traffic Flow Data System ("TRADS"). The comparisons showed that flows in 2014 were marginally lower than the preceding year only during the peak periods. During the remainder of the day outside the peaks, flows in 2014 were typically 2-3% higher than in 2013. This suggests that if diversion was occurring, it was limited to the peak periods.

4.25 The Royal Borough of Windsor and Maidenhead notes that the timetable for

construction of the Scheme will conflict with other major construction projects in the area, including Crossrail, Western Rail Access to Heathrow, Maidenhead town centre developments and other committed development schemes across the Borough. Construction will therefore require careful co-ordination with the other on-going projects.

- 4.26 Highways England notes that Crossrail is currently under construction, with the final stages of the various station construction and civil engineering works scheduled for completion in 2018. The majority of the major engineering is in the central London sections. Outside London, towards Reading, the works ongoing up until 2018 mainly comprise smaller station works and upgrades to the track and associated equipment. As such it is not anticipated that there will any significant construction interaction between Crossrail and the Scheme. It is to be noted that the project is included within the transport model and forms a component of the cumulative assessment of the Scheme in respect of its operational phase.
- 4.27 The Western Rail Link to Heathrow proposal was announced on 5 February 2014 following consideration of four options by Network Rail. At the time that the assessment for the Scheme was undertaken, the proposal was at “early stages of development” following its inclusion in the Route Utilisation Strategies published in March 2010. As such, Western Rail Access was not at a sufficiently developed stage to be included in the cumulative assessment for the Scheme, and it did not come within the guidelines set out in the Design Manual for Roads and Bridges (“DMRB”) for those committed, reasonably foreseeable developments that should be included in the assessment. It is understood an application may be brought forward in due course. Any application for the construction of the Western Rail Link will be required to take the Scheme into account when assessing the effect of its proposals in relation to both construction and operational interactions.
- 4.28 The centre of the town of Maidenhead lies approximately 2.5km north of Junction 8/9 of the M4 motorway and is served by the A404, the A4 and the A308. The Maidenhead Town Centre Area Action Plan was adopted by the Royal Borough Council on the 27 September 2011. The Plan comprises a package of individual development proposals and associated infrastructure improvements to be delivered in two phases: 2011-2015 and 2016-2020. The development proposals are centred on a number of defined “Opportunity Areas”, each of which has been taken into account in the development of the traffic forecasting model. A number of associated improvements to the local road network are planned “to improve traffic flows around the town centre”. These schemes

are to be funded from developer contributions obtained over the Plan period and implemented across the two expenditure phases. The Schemes comprise: A4/Ray Street junction closure; A4/Farlease roundabout modifications; A4 localised widening; A4 Castle Hill junction; Broadway link works; Stafferton Way link road and Blackamoor Lane link.

- 4.29 The assessment of the impacts on traffic arising during the construction of the Scheme did not identify any effect on the A4 through the town centre of Maidenhead. Accordingly, given this approach and the distance between the Scheme and Maidenhead Town Centre, it is concluded that there will not be any conflict between construction activities for the Scheme or the works on the A4 in Maidenhead.
- 4.30 The other committed developments across the Royal Borough principally comprise a residual requirement as at April 2012 to deliver 1,897 housing units by April 2017, together with outstanding consents as at 31 March 2011 for 42,631 sq.m. of business, industrial, distribution and storage focused on previously developed land across the Borough. As these developments comprise a number of individual sites spread over time across the Borough, it is not considered that there will be any material conflict between construction activities associated with these developments and the Scheme.
- 4.31 As set out in paragraph 4.3.13 of the CEMP, detailed traffic management proposals and drawings will be produced based upon the principles set out above and in the application documents, and consultation will be held with external stakeholders including Thames Valley Police, the Metropolitan Police, Area 5 Connect Plus, Area 3 EM Highways, the Traffic Officer Service and the various local authorities affected by the works (included Royal Borough of Windsor and Maidenhead). The traffic management proposals will be approved by Highways England's Regional Operations Board and will secure the co-ordination that is sought by the Borough Council.
- 4.32 Others to be consulted in the formation of traffic management proposals will be Fire and Rescue, Ambulance Services, public transport operators, Network Rail, and district and parish councils (the latter particularly when planning road closures and diversion routes). The outline CTMP provided at Annex E to the outline CEMP (Appendix 4.2A of the ES) will control the implementation of access and construction routes to the construction sites. The plan will be developed by the contractor, in consultation with the relevant authorities, as secured by Schedule 2, Clause 18 (1) of the draft DCO, and will set out agreed access and construction routes for the Scheme. Early engagement will be entered into with local authorities to develop the CTMP to

ensure any impact to the local network is minimised and to allow other developments in the local area to be properly considered.

4.33 The Royal Borough of Windsor and Maidenhead remain concerned that the proposed phasing of project, with M4 J12 to J8/9 opening before J8/9 to J3 will result in additional traffic problems in the Maidenhead area. As explained in paragraphs 4.18 to 4.24 above, Highways England's assessment demonstrates that the proposed phasing of the Scheme will not result in significant additional traffic issues in the Maidenhead area.

4.34 Highways England has explained in paragraph 8.3.1 of the EDR, the works programme over five years has been planned to balance the cost and time taken to carry out the works with the length of traffic management and associated 50mph speed restrictions in place at any time. It has been established from similar highway schemes that regularly implementing traffic management and then removing it with speed variance between 50mph to 70mph creates driver frustration and is less safe to the travelling public and to road construction workers.

4.35 An advantage of proposed phasing is that the first section of the Scheme (junction 12 to junction 8/9) can be completed and opened as smart motorway in about two years, thereby giving early benefits to road users and minimising the length of time for potential disturbance to adjacent stakeholders. Also during this period, the effects on road users and adjacent stakeholders between junction 8/9 and junction 3 will be minimal.

4.36 The assessment of construction impacts in 2020, during the second phase of construction, was modelled on the basis the first phase between junctions 12 to 8/9 was already in operation. In 2020, during the second phase of construction, the assessment did not identify any traffic diversion in the Maidenhead area.

4.37 Air Quality

4.38 The Bray/M4 AQMA was declared in 2009 and the Royal Borough of Windsor and Maidenhead has stated that road traffic in the area is the dominant source of pollution. NO₂ concentrations near the M4 are the highest in the Borough and one of the highest within the area of the proposed scheme. The proposed scheme will increase motorway capacity by permanently converting the hard shoulder to a running lane creating a fourth lane. Emissions are predicted to increase and the distance between the traffic lane and sensitive receptors will be reduced.

- 4.39 Highways England's 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, therefore includes the potential effect of the reduced distance between properties and the motorway.
- 4.40 The air quality assessment identifies that although some increases in annual mean nitrogen dioxide concentrations are predicted at some receptors adjacent to the Scheme, all sensitive receptors within the Royal Borough of Windsor and Maidenhead's area, including those within the Bray/M4 Air Quality Management Area, are predicted to experience annual mean concentrations of NO₂ below the objective value (40 µg/m³). This is predicted to be the case both with and without the Scheme in the Opening Year (2022). The location of these receptors is presented on Drawings 6.8, 6.9, 6.10, 6.13, 6.35 and 6.36 of the ES (and associated insets) (Application Document Reference 6-2).
- 4.41 The Royal Borough of Windsor and Maidenhead would not support the proposed scheme in its current form, with no control measures to reduce the air quality impact. In particular it recommends that Highways England consider noise barriers as a mean to improve air quality. It would be possible to improve the atmospheric dispersion of emissions from the M4 by increasing the height of the existing noise barriers in the area, which will also better contain the traffic noise from the new traffic lanes. The noise barriers would need to extend 350 metres to the west and 250 metres to the east of Windsor Road Overbridge. We would therefore suggest that the proposed scheme is an opportunity to mitigate the motorway air quality and noise impact in the area.
- 4.42 Highways England do not agree to the use of barriers to mitigate air quality effects and they are not currently an approved technique for use on Highways England road schemes. This is because there is uncertainty over the effectiveness of this type of measure. Therefore, based on both the absence of evidence of effectiveness of the measure, and that the effect is not quantifiable, it is not an appropriate measure to use for the Scheme.
- 4.43 Moreover, the air quality assessment, presented in Chapter 6 of the ES, has predicted that no significant adverse air quality effects will occur as a result of the Scheme, and thus Highways England has not considered adopting additional control measures in the Scheme.

4.44 Noise and Vibration

- 4.45 The Royal Borough of Windsor and Maidenhead consider that the scheme would result in running lanes being moved closer to adjoining residential properties and other receptors. The Council wishes Highways England to take the opportunity to implement mitigation measures in order to reduce the noise impact upon residents wherever possible.
- 4.46 Highways England's proposed 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, the heights and extents of which are defined in Table A12.2.1 of Appendix 12.2 of the ES (Application Document Reference 6-3). Existing noise barriers will be retained or replaced like for like if in poor condition. The heights and extents of existing noise barriers are defined in Table A12.1.1 of Appendix 12.1 of the ES (Application Document Reference 6-3).
- 4.47 The locations and extents of existing noise barriers and the new noise barriers are provided in Figure 12.2 of the ES (Application Document Reference 6-2). However, following consultation with London Borough of Hillingdon and South Bucks District Council after the Application, a revised Figure 12.2 and revised Tables A12.1.1 and A12.2.1 were provided in response to Question E4.7.18 of the Examining Authority's first written questions. The revised figure and tables incorporated revisions relating to the noise barriers to Hillingdon and to Dorney Reach, and the minor corrections as submitted in response to the Examining Authority's Rule 6 Letter.
- 4.48 Sheets 6, 7, 8, 9, 10, 12 and 13 of Figure 12.2 are relevant to the Royal Borough of Windsor and Maidenhead area.
- 4.49 The noise and vibration assessment, as reported in Chapter 12 of the ES (Application Document Reference 6-1), is for the Scheme with the above mitigation in place. The magnitude of impact for the Scheme is minor beneficial in the short term and negligible in the long term. The significance of effect during the operation of the Scheme is assessed as slight beneficial in the short term and neutral in the long term, with the vast majority of the Scheme corridor experiencing negligible or minor reductions in noise levels with the Scheme in operation (see paragraph 12.4.110 of the ES).
- 4.50 These noise reductions are shown in Figure 12.4 for the short term, and in Figure 12.5 for the long term (Application Document Reference 6-2). Sheets 6, 7, 8, 9, 10, 12 and 13 of Figure 12.4 and Figure 12.5 are relevant to the Royal Borough of Windsor and

Maidenhead area.

- 4.51 The calculations employed to derive the noise changes in Figure 12.4 and Figure 12.5 include the effect of moving the traffic closer to receptors by converting the present hard shoulder to a running lane.
- 4.52 It is noted in paragraph 12.4.112 of the ES that there is potential to further improve the noise climate within the Scheme corridor through enhanced mitigation. A qualitative appraisal of an enhanced mitigation strategy to achieve this is provided in Appendix 12.5 of the ES (Application Document Reference 6-3). This enhanced mitigation strategy comprises the provision of additional noise barriers, as outlined in Table A12.5.1 of Appendix 12.5 of the ES and the replacement of some existing noise barriers with higher noise barriers as outlined in Table A12.5.2 of Appendix 12.5 of the ES.
- 4.53 The effects of implementing this enhanced mitigation strategy have not been assessed in Chapter 12 of the ES. Hence, the assessment provided in Chapter 12 of the ES (which concludes that the vast majority of the Scheme corridor will experience noise reductions with the Scheme in operation) is very much a worst case assessment.
- 4.54 Work is ongoing to provide a quantitative assessment of the enhanced mitigation strategy outlined in Appendix 12.5 of the ES, which will be shared with the Examination in due course. This comprises an iterative process which is employed to estimate the numbers of receptors experiencing specific reductions in noise levels (for an additional noise barrier, as detailed in Table A12.5.1 of Appendix 12.5 of the ES, or replacement of an existing barrier, as detailed in Table A12.5.2 of Appendix 12.5), monetising the benefits of these reductions in noise levels (as employed in Transport Analysis Guidance (“TAG”) appraisal) and comparing this monetisation value with the cost of the mitigation to provide a cost benefit analysis. Thus, the lengths and heights of new barriers (if specified), and the heights of replacement barriers (if specified), will be optimised. 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.
- 4.55 Public Rights of Way
- 4.56 The Royal Borough of Windsor and Maidenhead wish to see the footway/cycleways over the River Thames Bridge retained and width improved to 3m.

- 4.57 Highways England intends to maintain and improve the northern footway at Thames Bray bridge but not to the width requested by the Royal Borough of Windsor and Maidenhead. The existing width of 1.67 metres will be improved to 2.5metres as part of the structural solution. This complies with current design standards. The widening arrangement with a 2.5m footway has been configured to closely replicate the existing girder spacings and edge cantilever dimensions as far as possible for reasons of buildability, structural capacity and aesthetics. The resulting edge cantilever is 2.15m wide matching the existing width, and the girders are spaced at 4m compared with the existing 3.81m spacing. Widening in this configuration has been the subject of detailed structural assessment of the existing bridge to confirm the technical feasibility of widening. This assessment has shown that strengthening is required to the existing structure as part of the widening scheme.
- 4.58 The increase in loading caused by widening the footway further to 3m would be highly likely to increase the amount of strengthening required. The size of structural sections, crane sizes and temporary falsework needed to construct the widening would also need to increase to accommodate the wider footway.
- 4.59 An additional consideration at this structure is the presence of a high pressure gas pipeline approximately 15m to the north of the structure which cannot be permanently loaded or caused to settle by the bridge and associated embankment widening. Reinforced steepened embankment slopes are required for several hundred metres on the approaches to the bridge to accommodate the wider highway alignment. Therefore further widening the structure, to accommodate a wider footway, would further steepen these embankments which in turn would significantly increase the overall construction cost.
- 4.60 For these reasons Highways England has designed a 2.5m wide footway on the northern side of the widened structure and approach embankments which is sufficient for shared pedestrian and cyclist use and improves the existing situation.
- 4.61 The Royal Borough of Windsor and Maidenhead considers that the Scheme should progress opportunities for improvements to the Thames Path National Trail. Highways England has no plans to undertake work on the trail, itself, at this stage. Should however any be needed to facilitate the bridge construction, the trail will be reinstated to its original condition.
- 4.62 The Local Access Forum (LAF) Fast Response Team considers that Marsh Lane

bridge forms part of an aspiration to improve horse riding in this area, in particular the forum is working towards a Multi-Use Route that will utilise this bridge. This area is heavily used by horse riders. The LAF consider that modifications are needed to this bridge to make it easier for use by horse riders which could easily be folded in to the design of the Highways England works, including building in a sufficient verge width and installing higher parapets on the bridge. The LAF suggests that the British Horse Society are consulted regarding the detailed design of the bridge.

- 4.63 Highways England has developed the bridge replacement works and associated side road improvements on the basis that such works would be on a like for like basis to the existing situation. The online improvements avoid the need to acquire additional lands and the DCO application has been prepared on this basis. Widening of the verges to accommodate equestrian usage of the PRow would therefore result in additional retaining works for extended earthworks and design modifications to the bridge to include for 1.8m high parapets. It should also be noted that the visual intrusion element of the Environmental Statement would not have covered the impacts of the suggested upgraded PRow provisions.
- 4.64 The LAF also notes that Datchet Footpath 1 is used heavily by cyclists as well as walkers and recommend that the opportunity is taken to improve the widths of the path to accommodate this use.
- 4.65 Highways England has developed the bridge replacement works and associated side road improvements on the basis that such works would be on a like for like basis to the existing situation. However, the cyclist usage of this bridge is recognised and as such the parapet height provisions for the new bridge have been enhanced compared to the existing situation. The parapet heights at Recreation Road overbridge will be 1.4m compared to the existing which are 1.0m high.