



# The Planning Inspectorate Yr Arolygiaeth Gynllunio

**The Planning Act 2008**

**M4 Junctions 3 to 12 Smart Motorway**

**Examining Authority's Report of Findings and Conclusions**

**and**

**Recommendation to the  
Secretary of State for Transport**

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**Examining Authority**

**Wendy Burden  
Lorna Walker  
Dr Mike Ebert**

**3 June 2016**

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**Examining Authority's findings and conclusions and recommendation in respect of the proposed improvement of the M4 Motorway between Junction 3 (Hayes) and Junction 12 (Theale) to upgrade it to a Smart Motorway.**

**File Ref TR010019**

The application, dated 30 March 2015, was made under Section 37 of the Planning Act 2008 and was received in full by The Planning Inspectorate on 30 March 2015.

The Applicant is Highways England (formerly the Highways Agency).

The application was accepted for Examination on 27 April 2015.

The Examination of the application began on 3 September 2015 and was completed on 3 March 2016.

The development proposed principally comprises:

- (a) 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 (mainly between Junction 4b and Junction 8/9);
- (b) replacement of overbridge structures that are too narrow to accommodate the improved motorway;
- (c) extension of underbridges and other structures such as culverts and subways to accommodate the improved motorway;
- (d) changes to junctions and slip roads needed to accommodate the improved motorway, and the use of the hard shoulder as a running lane, as well as allowing 'through junction running';
- (e) 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
- (f) other infrastructure needed for the improved motorway, such as emergency refuge areas, enhanced communication systems, closed circuit television and electrical supplies, as well as works to accommodate statutory undertakers' apparatus and other parties who may be affected by the proposed development.

**Summary of Recommendation:**

The Examining Authority recommends that subject to the measures that we identify at 9.2.1 the Secretary of State should make the Order in the form attached.

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### APPENDIX B: EXAMINATION LIBRARY

### APPENDIX C: LIST OF ABBREVIATIONS

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**ERRATA SHEET – M4 Junctions 3 to 12 Smart Motorway - Ref  
TR010019**

**Examining authority's Report of Findings and Conclusions and  
Recommendation to the Secretary of State for Transport, dated  
3 June 2016**

**Corrections agreed by the Examining Authority prior to a decision  
being made**

<b>Page No.</b>	<b>Paragraph</b>	<b>Error</b>	<b>Correction</b>
6	1.4.3	The Examination commenced on "4 September 2015"....	" <b>3</b> September 2015" <i>(comment: in accordance with PA2008 s.98(2))</i>
10	2.1.2	Unclear sentence beginning "We are satisfied that ..."	<b>Amend para 2.1.2 as follows:</b> 2.1.2 A full description of the proposed works is set out in the ES at Chapter 4 [APP-144], and they are listed in the recommended DCO in Appendix D. The applicant indicates that not all of the 9 construction compounds identified in the submitted proposal may be required, and the application for temporary acquisition of land to form CC 3 was withdrawn during the examination. [ <i>We are satisfied that although CC 3 is unlikely to be implemented, it is not necessary to amend the DCO to remove that part of the works. All of the remaining works set out in the DCO are integral to the proposed development and no associated development within the meaning of s115 of the PA2008 is sought through the Order.</i> ] The proposed development is also illustrated in the Engineering Design Report, Works Plans and ES Non-Technical Summary [APP-096, APP-013 to APP-017 and APP-358].

Page No.	Paragraph	Error	Correction
31	4.1.24	"ug/m <sup>3</sup> "	" <u>u</u> g/m <sup>3</sup> "
74	5.4.44	"Requirement 15"	"Requirement <u>5</u> "
89	5.7.26	"As assessment..."	"An assessment ..."
122	5.9.65	"an 'in principal decision ..."	"an 'in princ <u>iple</u> decision ..."
135	5.12.12	"St Dunston"	"St Dunst <u>a</u> n"
153	5.14.8 (5)	"Environmental Protect Act"	"Environmental Protection <u>ion</u> Act"
175	Footnote 73	"February 2010"	"September 2013"
182 183	7.4.30 7.4.37	in both locations, "[REP-048]"	"[REP <u>9</u> -048]"
183	7.4.39	Reference to and quotation from 2010 guidance superseded in 2013.	<b>Amend para 7.4.39:</b> 7.4.39 Paragraph 8 of the DCLG Guidance states that " <i>The applicant should be able to demonstrate to the satisfaction of the Secretary of State that all reasonable alternatives to compulsory acquisition (including modifications to the scheme) have been explored. The applicant will also need to demonstrate that the proposed interference with the rights of those with an interest in the land is for a legitimate purpose, and that it is necessary and proportionate.</i> "
202	7.4.162	Second sentence inconsistent with final sentence	Delete final sentence.
204	7.4.180	"... Amerden Lane <u>is</u> are ..."	"... Amerden Lane are ..."
208	7.4.202	"... screening form the M4 ..."	"... screening <u>from</u> the M4 ..."
unnumbered	Appendix B Examination Library	omission of examination document	Reference to omitted document inserted in revised Examination Library as "REP8-117a"

# **1 INTRODUCTION**

## **1.1 INTRODUCTION**

1.1.1 The proposed development is for the improvement and alteration of 51 kilometres (32 miles) of the M4 Motorway between Junction 3 (Hayes) and Junction 12 (Theale) to upgrade it to a 'smart motorway'<sup>1</sup>. In the preamble to the draft Development Consent Order and in the Statement of Reasons [APP-030] the proposed development is stated to be both an alteration and an improvement of a highway. The proposed development comprises a Nationally Significant Infrastructure Project (NSIP) as defined by sections 14(1)(h) and 22(1)(b), (1)(c), (3) and (4)<sup>2</sup> of the Planning Act 2008 (PA2008), because:

- the highway will be wholly in England;
- a strategic highways company will be the highway authority for the highway;
- for the construction element of the proposed development the area of the development is greater than 15 hectares; and
- for the improvement element of the proposed development the improvement of the highway is likely to have a significant effect on the environment [REP3-013]<sup>3</sup>.

1.1.2 The proposed development lies within the administrative areas of 11 local authorities [APP-089]:

- West Berkshire District Council (WBDC);
- Reading Borough Council (RBC);
- Wokingham Borough Council (WBC);
- Bracknell Forest Council (BFC);
- Royal Borough of Windsor and Maidenhead (RBWM);
- Buckinghamshire County Council (BCC);
- South Bucks District Council (SBDC);
- Slough Borough Council (SBC)
- London Borough of Hillingdon (LBHill);
- London Borough of Hounslow (LBHo); and
- The Greater London Authority (GLA).

1.1.3 The Applicant is the Highways Agency, now known as Highways England (HE). HE is a strategic road company which, subject to the provisions of the Infrastructure Act 2015 (IA2015), came into force on 5 March 2015. HE replaces the Highways Agency as the body responsible for the operation, maintenance and enhancement of the strategic road network in England. HE is an executive non-

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<sup>1</sup> Where smart motorways are implemented the hard shoulder is transformed into a permanent additional running lane and traffic flow is moderated by the use of variable speed limits.

<sup>2</sup> As amended by the Highway and Railway (Nationally Significant Infrastructure Projects) Order 2013

<sup>3</sup> Within this report, references to documents in the Examination Library (Appendix B) and cross-references to other parts of the report are provided in square parentheses [ ].



departmental public body, sponsored by the Department for Transport (DfT).

1.1.4 The M4 is the main strategic route between London, the west of England, and South Wales. Major towns and cities along the M4 include London, Reading, Swindon, Bristol, Newport, Cardiff and Swansea. The Applicant reports that between Junctions 3 and 12, as it runs from Hayes in LBHill to Theale in Reading, the M4 carries over 130,000 vehicles per day. At peak times, traffic flows on many links are close to or exceed the total flow that the link is designed to handle and traffic on the M4 therefore suffers from heavy congestion, which leads to unpredictable journey times. Long-term traffic trends show significant growth, with traffic flows forecast to increase to an average of 160,000 vehicles per day over the next 20 years. This will result in more severe congestion unless road improvements are carried out [APP-096].

1.1.5 The objectives of the proposed development are to:

- reduce congestion, smooth the flow of traffic to improve journey times and make journeys more reliable;
- support and enhance the role of the M4 as a major national and interurban regional transport artery;
- support the economy and facilitate economic growth within the regions, by providing much needed capacity on the motorway;
- continue to deliver a high level of safety performance of the network using smart motorway techniques; and
- deliver environmental improvements and mitigation where appropriate [APP-096].

1.1.6 In addition, HE has an overall objective of ensuring the best practicable environmental outcomes across all of its activities, while working in the context of sustainable development and delivering value for money [APP-096].

1.1.7 The application is accompanied by an Environmental Statement (ES) which satisfies the definition in Regulation 2(1) of the EIA Regs [APP-136 to APP-358]. The environmental information is supplemented through further submissions during the Examination and all the environmental information as defined in Regulation 2(1) has been taken into account.

## **1.2 STRUCTURE OF THE REPORT**

1.2.1 This introduction comprises Chapter 1. Chapter 2 summarises the main features of the proposed development and Chapter 3 summarises the legislative and policy context. Chapter 4 identifies the various issues which arose in submissions from local authorities and Interested Parties (IPs) from the outset of the Examination. Matters which require further and more detailed consideration are addressed in Chapter 5 which deals with the impacts of the proposed

development. Chapter 6 then sets out the ExA's conclusions on the case for development consent. Chapter 7 considers compulsory acquisition and other land matters and Chapter 8 deals with the recommended Development Consent Order (DCO). Chapter 9 sets out the ExA's overall conclusions and recommendation.

- 1.2.2 The report has several appendices. The main events taking place throughout the Examination and the main procedural decisions are listed at Appendix A. All documents submitted to the Examination of the application are recorded in the Examination Library at Appendix B. A glossary of terms and acronyms used in the report are at Appendix C. The recommended DCO forms Appendix D.

### **1.3 APPOINTMENT OF EXA**

- 1.3.1 On 11 September 2015 the appointment of Mrs Wendy Burden as the single appointed person to be the Examining Authority (ExA) for this application was confirmed to IPs and others [PD-004]. On 28 October 2015 it was decided on behalf of the Secretary of State for Communities and Local Government (SoSCLG) that a Panel of three Examining Inspectors should examine the application. Wendy Burden became the lead member of the ExA, joined by Lorna Walker and Dr Mike Ebert as Panel members [PD-009 and PD-010].

### **1.4 THE EXAMINATION AND PROCEDURAL DECISIONS**

- 1.4.1 The application was submitted to the Planning Inspectorate on 30 March 2015 and was accepted for Examination under s55 of the PA2008 on 27 April 2015 [PD-001]. It was then advertised by the Applicant and 328 relevant representations (RR) were received [RR-001 to RR-328]. The ExA subsequently accepted three submissions from Chiltern District Council [AS-003], Network Rail Infrastructure (NRI) [AS-002] and the GLA [AS-001], which purported to be RRs but could not be treated as such as they were received late and were not in the prescribed form. Nevertheless account of their content was taken in preparation of the initial assessment of principal issues [PD-004, Appendix B].
- 1.4.2 On 27 April 2015, the Planning Inspectorate issued s51 advice to the Applicant to be read in conjunction with the published Section 55 Acceptance of Applications Checklist [PD-002]. In response to discrepancies identified in the land information comprised within the application documentation, the Planning Inspectorate advised the Applicant to take a precautionary approach in the carrying out of its notification duties under s56 of the PA2008.
- 1.4.3 The Preliminary Meeting (PM) was held on 3 September 2015 where IPs, Affected Persons (APs) and others were able to make representations about how the application would be examined [EV-001 and EV-002]. The Examination commenced on 4 September 2015 and

the procedural decisions about the timetabling and form of the Examination were communicated on 11 September 2015 [PD-006].

- 1.4.4 A first round of Issue Specific Hearings (ISHs) was held in the week beginning 16 November 2015 regarding the draft DCO [EV-011 and EV-015], the environment [EV009 and EV-016 to EV-022] and road safety [EV-010 and EV-013]. A Compulsory Acquisition Hearing (CAH) was also held [EV-012, EV-023 and EV-024], as were three Open Floor Hearings (OFHs) in Reading [EV-025], Hayes/Heathrow [EV-026] and Maidenhead [EV-027], covering the western, eastern and central elements of the proposed development.
- 1.4.5 A second round of ISHs on the environment [EV-028, EV0-31 to 038], the draft DCO [EV-029, EV-040] and Compulsory Acquisition (CA) [EV-030, EV-039] were held from 10 to 12 February 2016.
- 1.4.6 An Unaccompanied Site Inspection (USI) was carried out in the pre-Examination period [EV-003]. On 10, 11 and 12 November 2015 and on 9 February 2016 the ExA undertook Accompanied Site Inspections (ASI) with IPs and APs [EV-004 to EV-007 and EV-027.1].
- 1.4.7 Five Local Impact Reports (LIR) were submitted by:
- SBC [REP2-047];
  - SBDC and BCC [REP2-050];
  - RBC [REP2-056];
  - LBHo [REP2-055]; and
  - LBHill [REP2-060.1 to REP2-060.30].
- 1.4.8 A number of Statements of Common Ground (SoCGs) were requested early in the Examination [PD-004, Annex E and PD-006, Annex D] and nine signed bilateral SoCG were produced to Deadline II in the Examination timetable, comprising those between the Applicant and:
- BFC [REP2-014].
  - Earley Town Council (ETC) [REP2-010];
  - Historic England [REP2-011];
  - LBHo [REP2-12];
  - Natural England (NE) [REP2-008];
  - RBC [REP2-013];
  - SBDC [REP2-009];
  - WBDC [REP2-006]; and
  - Wokingham Town Council (WTC) [REP2-007].
- 1.4.9 Further SoCGs were received during the Examination, between the Applicant and:
- BCC [REP3-018];
  - ETC [AS-017];
  - Environment Agency (EA) [REP5-002.5];
  - RBC [AS-016];
  - RBWM [AS-026];
  - SBC [REP8-004];

- South East Water (SEW) [REP9-039];
- Transport for London (TfL) and the GLA [AS-018]; and
- WBC [AS-049 and AS-050].

- 1.4.10 Two rounds of written questions were published on 11 September 2015 and 11 December 2015 [PD-005 and PD-011]. Additional questions were also issued by means of requests for further information under Rule 17 of The Infrastructure Planning (Examination Procedure) Rules 2010 (EPR) on 27 October 2015 [PD-008], 22 February 2016 [PD-012], and 24 February 2016 [PD-014].
- 1.4.11 The application together with RRs, written representations (WRs), other written submissions, procedural decisions, the ExA's questions, responses and comments thereon were all made and remain available on the Planning Inspectorate's website<sup>4</sup>.
- 1.4.12 The Examination closed on 3 March 2016 and the notification of closure was communicated to all those who participated in the Examination on 4 March 2016 [PD-013].

## **1.5 OTHER CONSENTS REQUIRED**

- 1.5.1 Other consents are required to implement the proposed development and these are identified in document 5.5 of the application, *Details of other consents and licences* [APP-083]. The Applicant identifies 13 consents that are required prior to commencement:
- *Natural England* - protected species licence in respect of badgers; badger disturbance licence; European protected species licences in respect of bats and great crested newts<sup>5</sup>;
  - *Environment Agency* - licence to dispose of Japanese knotweed, giant hogweed and Indian balsam; consent to obstruct ordinary watercourses; consents to discharge into available watercourses for trade effluent during construction and dewatering of excavations; hazardous waste consent; flood defence consent;
  - *Wokingham Borough Council* - application to correct commons register in respect of plot 10-01a;
  - *Relevant local authority* - planning permission for construction of badger sett for relocated badgers; consent for work on construction sites.
- 1.5.2 Entry number 11 in the list of other consents identifies the need for an application to be made to WBC to correct the commons register in respect of plots 10-01a and 10-01b. The Applicant states that the lands at plots 10-01a and 10-01b, which comprise a section of the

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<sup>4</sup> <http://infrastructure.planninginspectorate.gov.uk/projects/South%20East/M4-Junctions-3-to-12-Smart-Motorway/>

<sup>5</sup> It was agreed between NE and the Applicant that a 'letter of principle' would be required from NE in respect of each licence that was required. These had not been received by the close of the Examination. We refer again to this matter in 5.9 on Biodiversity and in our conclusions and recommendations.

westbound M4 carriageway and central reservation close to Sindlesham, were registered as common land in error through a decision dated 30 March 1973 [REP3-022, Appendix A]. At the time the plots were registered as common land, they formed part of the M4 motorway and therefore no rights of common could or can be exercised over the lands. We deal with this matter in Chapter 7.

- 1.5.3 At the time the application was submitted, existing highway land comprising the site was predominantly registered as Crown Land held by the Secretary of State for Transport (SoS) [REP3-022]. Following the replacement of the Highways Agency with HE in March 2015, all SoS interests were transferred to the Applicant under the provisions of the Infrastructure Act 2015. We deal with other matters relating to Crown Land in Chapter 7.

## **1.6 CHANGES TO THE APPLICATION**

- 1.6.1 During the course of the Examination, we requested a number of supplementary documents to clarify matters arising from the representations received, and some original application documents were superseded by submissions from the Applicant to reflect ongoing negotiations with IPs. All these changes are reflected in the Applicant's final revised list of application documents [REP9-040].
- 1.6.2 We have considered these changes and are satisfied that they do not constitute any material change to the application in accordance with the Guidance for the Examination of Nationally Significant Infrastructure Projects issued by SoSCLG in March 2015.

## **2 MAIN FEATURES OF THE PROPOSAL AND SITE**

### **2.1 THE PROPOSED DEVELOPMENT**

- 2.1.1 The proposed development is for the improvement of a 51 kilometres (32 miles) section of the M4 Motorway between Junction 3 (Hayes) and Junction 12 (Theale) to upgrade it to a smart motorway. In order to achieve the proposed improvement, the proposed development principally includes [APP-096]:
- (a) The 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 (mainly between Junction 4b and Junction 8/9);
  - (b) the replacement of 11 overbridge structures that are too narrow to accommodate the improved motorway. Bridges at Marsh Lane, Oldway Lane, Recreation Ground, Old Slade Lane are proposed to be replaced online; bridges at Ascot Road, Monkey Island Lane, Lake End Road, Huntercombe Spur, Wood Lane, Datchet Road, Riding Court Road are proposed to be replaced offline;
  - (c) the widening of 4 underbridges, 4 culverts and 2 subways to accommodate the improved motorway;
  - (d) changes to junctions and slip roads needed to accommodate the improved motorway, and the use of the hard shoulder as a running lane, as well as allowing 'through junction running' (TJR) with the exception of the motorway interchanges at Junctions 4b and 10, and at Junctions 3 and 12;
  - (e) 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;
  - (f) other infrastructure needed for the improved motorway, such as emergency refuge areas (ERAs) within the existing highway verges at no more than 2.5 km intervals; police observation platforms (POPs) adjacent to some ERAs; concrete safety barriers in the central reserve; enhanced communication systems; closed circuit television and electrical supplies; works to accommodate statutory undertakers' apparatus and other parties who may be affected by the proposed development; and
  - (g) the provision of up to 9 construction compounds (CCs).
- 2.1.2 A full description of the proposed works is set out in the ES Chapter 4 [APP-144], and they are listed in the recommended DCO in Appendix D. The Applicant indicates that not all of the 9 CC identified in the submitted proposal may be required, and the application for temporary acquisition of land to form CC 3 was withdrawn during the Examination. We are satisfied that although construction is unlikely to be implemented of the remaining works set out in the DCO, they are integral to the proposed development and no associated development within the meaning of s115 of the PA2008 is sought through the Order. The proposed development is also illustrated in the Engineering Design Report, Works Plans and ES Non-Technical Summary [APP-096, APP-013 to APP-017 and APP-358].

- 2.1.3 The draft DCO includes principal powers that relate to the CA of land, the creation of new rights in land and the interference with or extinguishment of existing rights in land. Temporary possession of land is also proposed. The updated Statement of Reasons (SoR) explains the need for the proposed development and offers a public interest case for the land to be acquired compulsorily [REP5-007.3].
- 2.1.4 The Order land includes lands in which statutory undertakers have rights or other interests. These include electricity, gas, oil, water and sewerage undertakers, operators of electronic communications code networks, railway interests, and Heathrow Airport Limited (HAL). Powers within the draft DCO make provision for CA powers associated with these, subject to Schedule 9 Parts 1 to 9 of the draft DCO which deal with the protection of their interests. Specific provisions are included to protect the operational interests of NRI(Part 3), National Grid (Part 4), United Kingdom Oil Pipelines Ltd and West London Pipeline and Storage Ltd (Part 5), the EA (Part 6), Thames Water (Part 7), SEW (Part 8) and HAL (Part 9).
- 2.1.5 Powers within the recommended DCO also make provision for the CA of special category land, specifically interests in lands forming open space and common land. In respect of common land, in accordance with s131 and s132 of the PA2008 the DCO makes provision for replacement land to be given in exchange. The acquisition of interests sought in 28 plots comprising open space would not trigger special parliamentary procedure as those lands are sought to be acquired for a temporary purpose [REP3-022]. We deal with these matters in detail in Chapter 7.

## **2.2 THE SITE**

- 2.2.1 The site is contained by the Order limits and is illustrated in the updated Land Plans [REP5-007.5]. The site is also described in detail in nine discrete sections within Chapter 2 of the ES [APP-142].
- 2.2.2 Including all lands required to deliver the proposed development the site extends to an area of approximately 386,000 hectares [REP3-022], mainly embracing existing highway land which comprises:
- the existing M4 carriageway, junction slips and associated verges;
  - 11 shared-use overbridges accommodating the local road network (LRN) and intersections with the wider Strategic Road Network (SRN);
  - shared and pedestrian-only non-motorised user (NMU) routes above and beneath the existing motorway at a number of subways and overpasses; and
  - side roads adjacent to the M4 carriageway.
- 2.2.3 Other lands in agricultural use and other private/commercial use are also comprised within the Order lands, but to a much lesser extent.

Notably, within these other lands the proposed development includes the establishment of a temporary main office CC (circa 5 ha) and up to eight smaller temporary satellite compounds (circa 1 ha each) to accept material deliveries, provide distribution of plant and equipment and provide office and welfare facilities for workers [APP-096].

2.2.4 However, the Applicant confirms that one of the eight smaller satellite compounds (CC3) at MereOak Lane, Grazely, Reading would not be required since the site has been developed to provide a park and ride facility. Whilst the site remains within the confines of the Order, it has been removed from the updated Book of Reference and Land Plans [REP5-007.2, REP5-007.5] since temporary possession is no longer required.

2.2.5 Several existing Public Rights of Way (PRoW) abut or cross the existing motorway within the Order limits. Where these cannot be retained during the construction of the proposed development, the application proposes that they will be temporarily modified to enable the requisite works, whilst retaining their current function as far as practicable [APP-096]. The proposed development would not result in the permanent closure or alteration of any PRoW.

2.2.6 Various sections of the proposed development pass through lands designated as Metropolitan Green Belt [APP-089]. We examine the impact on the Green Belt in Chapter 5 with our conclusions in Chapter 6.

## **2.3 THE SURROUNDINGS**

2.3.1 The M4 provides the strategic highway link between Wales to the west and London to the east. The proposed development commences in the vicinity of Reading, and runs eastwards to the western fringe of the Greater London conurbation. Heathrow, the UK's principal international airport, is located in close proximity to the proposed development to the south of the area between Junction 3 and Junction 4b.

2.3.2 The main urban centres along the proposed development are Reading, Maidenhead, Slough, Hillingdon and Hounslow. Smaller but notable urban areas include Wokingham, Bracknell, Windsor, West Drayton and Hayes. These conurbations are all accessed from the M4 motorway via the 11 junctions comprised within the proposed development. Those junctions principally provide access from the motorway as follows:

- Junction 12 - A4, Reading (west) and Theale;
- Junction 11 - A33, Basingstoke and Reading (central and south);
- Junction 10 - A329(M), Reading (east), Wokingham and Bracknell;
- Junction 8/9 - A404(M), High Wycombe, Henley, A308(M) and Maidenhead;
- Junction 7 - A4 and Slough (west);



- Junction 6 - A355, Slough (central), A322 and Windsor;
- Junction 5 - A4, Colnbrook, Langley, B470, Eton and Datchet;
- Junction 4b - M25, M1, M3, M11, M20, M23, M40, Heathrow Airport (Terminals 4, 5, and Cargo), Gatwick Airport, and Stansted Airport;
- Junction 4 - Heathrow Airport (Terminals 1, 2 and 3), A408, Uxbridge and Hillingdon; and,
- Junction 3 - Heathrow Airport (Terminals 4, 5 and Cargo), A312, Hayes, Harrow, Hillingdon and Hounslow [APP-096].

- 2.3.3 The access to Reading Motorway Services is also located within the proposed development between Junction 12 and Junction 11.
- 2.3.4 Beneath the M4 carriageway, the site is traversed by road and rail infrastructure. On the rail network these intersections are facilitated by the following railway underbridges: Thames Bray, Theale, Mortimer Line, Staines Branch, Southern Region Winnersh and Windsor Branch. Several local roads, accommodating routes used by vehicular traffic, pedestrians and cyclists, also pass under the motorway at underbridges along the route of the proposed development [APP-096].
- 2.3.5 The topography of the site and its surroundings is generally low-lying, with sections of the proposed development located within Flood Zones 2 and 3 [APP-089]. Also beneath the carriageway, the proposed development is traversed by a number of major watercourses and a range of lesser brooks and drains. Major rivers which pass beneath the motorway include the River Kennet, River Loddon, River Thames, Jubilee River<sup>6</sup>, Wraysbury River, River Colne and River Crane. The Kennet and Avon Canal also passes beneath the proposed development.
- 2.3.6 The site surroundings are varied, and are characterised within the application in nine discrete sections [APP-096], abbreviated here:
- (1) Junction 12 to 11 - The surroundings in this section are principally rural. The North Wessex Downs Area of Outstanding Natural Beauty (AONB) is located to the extreme west and the Sulham and Tidmarsh Woods and Meadows Site of Special Scientific Interest (SSSI) and Pincents Kiln SSSI are both situated north of the M4 in the vicinity of Junction 12. Wetland and industrial areas are adjacent to both junctions. Lands to the south of the M4 in this section have previously seen extensive gravel extraction activity, resulting in water-filled gravel pits. Reading Services is also located on this section;
  - (2) Junction 11 to 10 - The surroundings are generally characterised by modern residential suburbs to the north of the M4, and rural landform to the south where the villages of Shinfield and Sindlesham are interspersed within the low-lying floodplain of the

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<sup>6</sup> A man-made flood alleviation channel.

River Loddon. West of Junction 10 the urban areas of Winnersh and Wokingham straddle the motorway to the north and south, respectively;

- (3) Junction 10 to 8/9 - The surroundings are rural, and characterised by scattered farms, homesteads and rural businesses, interspersed with areas of established woodland. The section is in the Metropolitan Green Belt (MGB). Shurlock Row, White Waltham, Paley Street and Stud Green are the principal villages around the town of Maidenhead;
- (4) Junction 8/9 to 7 - The general landform through this section is rural with isolated residential and industrial areas. The section is in MGB, passing Dorney Reach and Dorney, recreational lakes and adjacent wetlands to the south;
- (5) Junction 7 to 6 - The surroundings in this section are principally residential, lying on the northern fringe of the MGB. Slough and the suburb of Cippenham lie to the north, and Eton Wick lies within the River Thames floodplain to the south. Also to the south are the Slough waste-water treatment works (land south-east of Junction 7), Windsor Castle (on escarpment to River Thames) and Eton College;
- (6) Junction 6 to 5 - The general landform through this section is residential, with isolated areas of parkland. Suburbs of Slough including Upton Court Park, Ditton Park and Langley lie to the north, with Datchet and the Queen Mother Reservoir to the south. Allotments abut the motorway in the vicinity of the Datchet Road overbridge;
- (7) Junction 5 to 4 - The surroundings are principally residential and industrial in the vicinity of Junction 5, and semi-rural towards Junction 4b, the M25 interchange. The area east of Slough is characterised by Richings Park, Richings Park Golf Course and farmland (traversed by high voltage power lines to the north). Gravel pits, gravel pit lakes, water treatment works, an industrial estate and farmland (also traversed by high voltage power lines) lie to the south;
- (8) Junction 4b to 4 - The surroundings through this section are principally residential, and the area is in the MGB. Saxon Lake lies immediately south-east of Junction 4b. The M4 passes between West Drayton to the north and the villages of Harmondsworth, Sipson and Heathrow to the south. The area south of the motorway is also characterised by the western section of Heathrow Airport and extensive ancillary development; and,
- (9) Junction 4 to 3 - The surroundings through this section are principally residential, and the area is in MGB. The modern residential suburbs of Hayes lie to the north, and the village of Harlington to the south. The area to the south is also characterised by the Little Harlington Playing Fields, Cranford Park, and the eastern section of Heathrow Airport [APP-096].

2.3.7 The following designated and non-statutory designated sites are in the vicinity of the site, but none of them are comprised within lands that are required to deliver the proposed development. We consider

whether there is any impact from the scheme on the sites in Chapters 4 and 5. The sites comprise:

- the Mole Gap to Reigate Escarpment Special Area of Conservation (SAC) (located approximately 25 km south-east of the Order limits);
- eight SSSIs;
- 11 Local Nature Reserves (LNR) (three of which are adjacent to the Order limits);
- seven sites of Nature Conservation Interest (five of which are adjacent to the Order limits);
- 32 Local Wildlife Sites (12 of which are adjacent to the Order limits);
- one Biological Notification Site (this is adjacent to the Order limits); and
- the North Wessex Downs AONB (to the western extremity of the proposed development) [APP-229 to APP-231].

2.3.8 There are no designated cultural heritage features within the site. There are eight conservation areas, 17 listed buildings/structures (including the Grade I Burnham Abbey and Grade I Church of St. Laurence), two scheduled monuments, and two registered parks and gardens all located within 250 metres of the Order limits [APP-310].

## **2.4 RELEVANT PLANNING HISTORY**

2.4.1 The Planning Statement submitted with the application reports that each of the 11 local authorities listed in Section 1.1 of this report were consulted with specific regard to the planning history of applications within the Order limits [APP-089].

2.4.2 RBC, SBC, LBHill, SBDC, BCC, BFC and the GLA all reported that there was no relevant historical information relating to planning applications within the Order limits. WBDC, RBWM and LBHo had not responded by the time the application was submitted. LBHo stated in its LIR that there were no approved schemes likely to impact on any works proposed within the proposed development. WBDC and RBWM did not submit LIRs.

2.4.3 WBC states in its response that four schemes "*that may encroach on the site area*" had been identified, either through falling within the Order limits or by being immediately adjacent to them. They are:

- a full application for the construction of an Eastern Relief Road to Shinfield<sup>7</sup>;
- the proposed construction of a new park and ride facility providing approximately 600 bays at Mereok Lane, Grazyly, Reading<sup>8</sup>;

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<sup>7</sup> Reference F/2010/1428. Status: Appeal Approved 8 November 2012. Under construction.

- an outline application for phase 1 development of a Science and Innovation Park and a full application for associated access at land north of Cutbush Lane, Shinfield, Reading<sup>9</sup>; and
- an application for full planning permission for the erection of 276 dwellings at Croft Road, Spencers Wood, Reading<sup>10</sup>.

- 2.4.4 The position of SBC was updated in its LIR [REP2-047]. The Council contends that the cumulative impact of three strategic infrastructure schemes proposed in the vicinity of the Borough are relevant and should be taken into account, namely the Western Rail Link to Heathrow, the Heathrow Express Depot (HEX) (a proposal forming part of the High Speed Rail [London West Midlands] Bill Additional Provision of July 2015) and the Heathrow North West Runway scheme (as recommended in the Airports Commission Final Report, July 2015). An agreed statement was submitted on behalf of LBHill, SBC, SBDC and BCC relating to development which should be included in the assessment of cumulative impacts [REP4-032].
- 2.4.5 The position of SBDC was also updated in its LIR, with the Council identifying a planning permission which had been granted for the redevelopment of the Wyeth Pharmaceuticals site to provide a replacement office building<sup>11</sup> [REP2-050]. The eastern boundary of the Wyeth Pharmaceuticals site adjoins the Huntercombe Spur, which falls partially within the proposed development at Junction 7.
- 2.4.6 Since the application was submitted, it has also been brought to the ExA's attention through representations that an application made by Goodman Colnbrook (Jersey) Ltd (GCL) for a strategic rail freight interchange includes lands within the M4 Order limits<sup>12</sup> [RR-232 and AS-025]. The application by GCL was refused by SBC on 8 September 2011, but the decision was appealed<sup>13</sup>. An appeal inquiry was held by the Planning Inspectorate and a decision was expected to be made on or before 28 April 2016. See Chapter 7 for the Panel's Examination of this issue.
- 2.4.7 The ExA's consideration of the above development proposals, and any associated implications for the proposed development, is set out in Chapter 5 of this report.

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<sup>8</sup> Reference F/2013/0884. Status: Approved 2 September 2013. Operational on land comprising Construction Compound 3 as of 17 August 2015.

<sup>9</sup> Reference 153226. Status: Approved 22 October 2015.

<sup>10</sup> Reference F/2013/0347. Status: Approved 22 July 2014.

<sup>11</sup> Reference 15/00803/FUL. Status: Approved 23 July 2015.

<sup>12</sup> Reference P/14961/1000.

<sup>13</sup> Reference APP/J0350/A/12/2171967.

## **3 LEGAL AND POLICY CONTEXT**

### **3.1 INTRODUCTION**

3.1.1 This Chapter sets out the legal and policy context in which the application was prepared and examined. The legal and policy context, as interpreted by the Applicant, is also set out in the Planning Statement [APP-089].

### **3.2 THE PA2008 AND NATIONAL POLICY STATEMENTS**

3.2.1 The application falls within the definitions for highway-related development set out in s22 of the PA2008. The National Policy Statement for National Networks<sup>14</sup> (NPSNN) therefore has effect, and pursuant to s104 of the PA2008 the application must be decided in accordance with it.

3.2.2 The M4 forms part of the national road network. Section 2 of the NPSNN sets out the Government's vision and strategic objectives for the national road and rail networks. These are:

- networks with the capacity and connectivity and resilience to support national and local economic activity and facilitate growth and create jobs;
- networks which support and improve journey quality, reliability and safety;
- networks which support the delivery of environmental goals and the move to a low carbon economy; and
- networks which join up our communities and link effectively to each other.

3.2.3 A critical need is identified (NPSNN paragraph 2.2) to address road congestion to provide safe, expeditious and resilient networks that better support social and economic activity; and to provide a transport network that is capable of stimulating and supporting economic growth. This is because on the road network, it is estimated that around 16% of all travel time in 2010 was spent delayed in traffic<sup>15</sup>. In their current state, the national networks act as a constraint to sustainable economic growth, quality of life and wider environmental objectives.

3.2.4 Traffic congestion is identified as a constraint on the economy, and a negative impact on quality of life (NPSNN paragraph 2.16). In 2010 the direct costs of congestion on the SRN in England were estimated at £1.9 billion per year. With pressure on the road network forecast to increase, the economic and environmental costs of congestion will increase (NPSNN paragraph 2.18).

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<sup>14</sup> Designated in January 2015.

<sup>15</sup> Based on forecast figures from the National Transport Model for all England roads.

- 3.2.5 To address the need to relieve congestion, NPSNN identifies enhancements to the SRN which include the implementation of smart motorways, as proposed in this application. Where smart motorways are implemented the hard shoulder is transformed into a permanent additional running lane and traffic flow is moderated by the use of variable speed limits. This improves capacity and reduces congestion without taking additional land and generally has fewer environmental implications than other forms of development. Emergency Refuge Areas (ERAs) are provided at periodic intervals and variable message signs display variable speed limits and other important information. Traffic congestion is managed automatically (footnote to NPSNN paragraph 2.23).
- 3.2.6 The NPSNN goes on to set out the principles by which proposed development of the SRN should be addressed in Section 4, and identifies the generic impacts to be considered in Section 5. We address the detailed criteria against which the impacts of the scheme fall to be considered as we report on each of those impacts in Chapter 5.
- 3.2.7 In addition to the NPSNN, s104 of the PA2008 provides that in deciding the application the SoS must also have regard to:
- any LIR (within the meaning of s60(3) of the PA2008);
  - any matters prescribed in relation to development of the description to which the application relates; and
  - other matters that the SoS thinks are both important and relevant to its decision.
- 3.2.8 This report sets out the ExA's findings, conclusions and recommendations taking these matters fully into account and applying the approach set out in s104 of the PA2008 in making our recommendation to the SoS.

### **3.3 EUROPEAN REQUIREMENTS AND RELATED UK REGULATIONS**

#### ***Habitats Directive (Council Directive 92/43/EEC)***

- 3.3.1 The provisions of the Habitats Directive (together with the *Council Directive 79/409/EEC on the conservation of wild birds*<sup>16</sup>) are addressed in the application.
- 3.3.2 The Applicant's screening exercise in respect of whether a Habitats Regulation Assessment (HRA) is required is summarised in an appendix to the *ES Assessment of Implications on European Sites (AIES) Screening Matrix* [APP-327]. We deal with the need for HRA in Chapter 4, and other matters relating to biodiversity and ecological conservation in Chapter 5.

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<sup>16</sup> The Wild Birds Directive.

### **Water Framework Directive (Council Directive 2000/60/EC)**

- 3.3.3 On 23 October 2000, *Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy*, or in short the *EU Water Framework Directive (WFD)*, was adopted. Representations from the EA in respect of the Applicant's WFD Compliance Assessment [APP-134] are considered in Chapter 5 of this report.

### **Air Quality Directives (Council Directive 2008/50/EC)**

- 3.3.4 *Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe* (EU Air Quality Directive) entered into force on 11 June 2008. It sets limit values for compliance and establishes control actions where the limit values are exceeded for ambient air quality with respect to sulphur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>) and Mono-nitrogen oxides and nitrogen dioxide (NO<sub>x</sub>), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), lead, benzene and carbon monoxide.
- 3.3.5 The Air Quality Standards Regulations 2010 (the AQS Regulations) give effect, in England, to the EU Air Quality Directive.
- 3.3.6 Part IV of the Environment Act 1995 (EA1995) requires all local authorities in the UK to review and assess air quality in their area. If any standards are being exceeded or are unlikely to be met by the required date, then that area should be designated an Air Quality Management Area (AQMA) and the local authority must draw up and implement an Air Quality Action Plan (AQAP) aimed at reducing levels of the pollutant.
- 3.3.7 The proposed development runs through nine AQMAs. These are: Wokingham, Reading, Bray/M4, South Bucks, Slough No.1, Slough No.2, Slough No.3, Hillingdon and Hounslow. A number of other AQMAs have been established in the vicinity of the site. The AQMAs fall within three zones/agglomerations. These are the Greater London Urban area, the Reading/Wokingham Urban area and the South East area
- 3.3.8 The UK Government is subject to infraction proceedings for breaching the EU Air Quality Directive and has been taken to the Supreme Court by the campaign group ClientEarth for failing to comply with the Directive. The Supreme Court<sup>17</sup> made a mandatory order requiring the Secretary of State for Environment, Food and Rural Affairs to prepare new air quality plans under article 23(1) of Directive 2008/50/EC, in accordance with a defined timetable, to end with the delivery of the revised plans to the European Commission not later than 31 December 2015.

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<sup>17</sup> <https://www.supremecourt.uk/cases/docs/uksc-2012-0179-judgment.pdf>; judgment given on 29 April 2015

3.3.9 The Government consulted on a draft National Plan from 12 September 2015 until 6 November 2015, and on the 17 December 2015 the Department for Environment, Food and Rural Affairs (Defra) published '*Air quality in the UK*'<sup>18</sup>. According to Defra, this document "*provides an overview of the UK plan for improving air quality. Along with the associated zone plans it sets out how the Government will fulfil its commitment to improve air quality and meet the requirements of the EU Air Quality Directive*". We consider the implications of the Defra air quality plan for the application project in Chapter 5.

### **3.4 GOVERNMENT TRANSPORT POLICY**

#### ***Road investment strategy for the 2015 to 2020 road period***

3.4.1 The Government's first *Road Investment Strategy* (RIS) was published in December 2014 and sets out the performance specification for HE. The RIS comprises:

- a long-term vision for England's motorways and major roads, outlining how HE will create smooth, smart and sustainable roads;
- a multi-year investment plan that will be used to improve the network and create better roads for users;
- high-level objectives for the first roads period 2015 to 2020.

3.4.2 The Strategy seeks to establish an upgraded network, supported by technology, which involves "*Smart motorways becoming the standard for the busiest sections of the network, delivering smoother traffic flow, increased capacity and improved safety*". For London and the South East, the RIS refers to the previously announced and committed M4 Junctions 3 to 12 Scheme, described as "*upgrading the M4 to Smart Motorway between junction 3 (Uxbridge) and junction 12 (west of Reading), linking Reading and Heathrow*". The document advises that the schemes included within it, such as 'new smart technology' on the M4, will have access to committed funding, allowing them to enter construction during the first Road Period ending in 2019/20<sup>19</sup>.

#### ***National Infrastructure Plan 2014***

3.4.3 The National Infrastructure Plan (NIP) sets out an ambitious infrastructure vision for consecutive parliaments, reinforcing the government's commitment to investing in infrastructure and improving its quality and performance.

3.4.4 The NIP was first published in 2010 and is updated annually. The NIP 2014 is underpinned by a pipeline of over £460 billion of planned

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<sup>18</sup> <https://www.gov.uk/government/publications/air-quality-in-the-uk-plan-to-reduce-nitrogen-dioxide-emissions>, first published 17 December 2015; updated 18 January 2016

<sup>19</sup> <https://www.gov.uk/government/collections/road-investment-strategy>



public and private investment, listing the M4 Junction 3 to 12 Smart Motorway in the Top 40 priority infrastructure investments based on the scheme's capital value<sup>20</sup>.

### ***Highways England's Licence***

3.4.5 HE operates as a Government owned company under a licence [REP4-005.4]. Part 4 of the licence lays out the aims and obligations that the licence holder must observe to:

- *ensure the effective operation of the network;*
- *ensure the maintenance, resilience, renewal, and replacement of the network;*
- *ensure the improvement, enhancement and long-term development of the network;*
- *ensure efficiency and value for money;*
- *protect and improve the safety of the network;*
- *cooperate with other persons or organisations for the purposes of coordinating day-to-day operations and long-term planning;*
- *minimise the environmental impacts of operating, maintaining and improving its network and seek to protect and enhance the quality of the surrounding environment; and,*
- *conform to the principles of sustainable development.*

3.4.6 The licence also requires HE to "*provide for sufficient flexibility and future-proofing in planning the long-term development and improvement of the network, taking account of long-term trends, uncertainties and risks - including new and emerging technologies and long-term trends in climate and weather conditions*".

3.4.7 The Panel takes account of the duties imposed on HE by the licence in considering the impacts of the proposed development and the relevant proposals for mitigation in Chapter 5. In particular there is an issue as to how far the licence would secure the maintenance of particular elements of the proposed development (such as drainage, and acoustic fencing) and ensure that any unforeseen environmental impacts such as increases in NO<sub>2</sub> are mitigated.

## **3.5 OTHER LEGAL AND POLICY PROVISIONS**

### ***The National Planning Policy Framework (NPPF) and National Planning Practice Guidance (NPPG)***

3.5.1 The NPPF does not contain policies specifically relating to NSIPs. However, pursuant to paragraph 1.18 of the NPSNN, insofar as provisions in the NPPF are relevant to the application we have taken these into account in our assessment of the issues in this case, such as the consideration of Green Belt. The NPPG is also taken into

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<sup>20</sup> <https://www.gov.uk/government/collections/national-infrastructure-plan>

account where appropriate, in particular in the advice on the imposition of planning conditions is applied to our consideration of appropriate requirements.

***The National Parks and Access to the Countryside Act 1949 (NPACA)***

3.5.2 The NPACA provides the framework for the establishment of National Parks and AONBs. It also establishes powers to declare National Nature Reserves, to notify Sites of Special Scientific Interest (SSSI) and for local authorities to establish Local Nature Reserves (LNR).

3.5.3 The NPACA has relevance to the consideration of any impacts on the North Wessex Downs AONB through which a part of the proposed development passes, and to any impacts on SSSIs, as discussed in Chapter 5.

***The Wildlife and Countryside Act 1981 (as amended) (WCA)***

3.5.4 The WCA is the primary legislation which protects animals, plants, and certain habitats in the UK. The WCA provides for the notification and confirmation of SSSIs. These sites are identified for their flora, fauna, geological or physiographical features by the countryside conservation bodies (in England, Natural England). The WCA also contains measures for the protection and management of SSSIs.

3.5.5 The WCA has relevance to the consideration of impacts on SSSIs and on protected species and habitats which are discussed in Chapter 5.

***The Countryside and Rights of Way Act 2000 (CRWA)***

3.5.6 The CRWA brought in new measures to further protect AONBs, with new duties for the boards set up to look after AONBs. These included meeting the demands of recreation, without compromising the original reasons for designation and safeguarding rural industries and local communities. There was also a new duty for all public bodies to have regard to the purposes of AONBs. The CRWA also brought in improved provisions for the protection and management of SSSIs and in relation to rights of way.

3.5.7 The effects on landscape and visual impacts as well as the effects on rights of way and the ease of movement for NMUs are considered in Chapter 5 of this report.

***The Natural Environment and Rural Communities Act 2006 (NERCA) and the United Nations Environment Programme Convention on Biological Diversity 1992***

3.5.8 The NERCA made provision for bodies concerned with the natural environment and rural communities, in connection with wildlife sites, SSSIs, National Parks and the Broads. It includes a duty that every public body must, in exercising its functions, have regard, so far as is consistent with the proper exercising of those functions, to the

purpose of biodiversity. In complying with this, regard must be given to the *United Nations Environment Programme Convention on Biological Diversity of 1992*.

- 3.5.9 The effects on biodiversity, the biological environment and ecology and landscape matters are considered in Chapter 5 of this report. As required by Regulation 7 of the Infrastructure Planning (Decisions) Regulations 2010, we have had regard to this Convention in its consideration of the likely impacts of the proposed development and appropriate objectives and mechanisms for mitigation and compensation.

#### ***Protection of Badgers Act (1992)***

- 3.5.10 The Protection of Badgers Act (1992) proscribes offences relating to badgers (taking, injuring or killing badgers; cruelty; interfering with badger setts; selling and possession of live badgers; marking and ringing of badgers), together with exceptions and licences, and enforcement and penalties. The implications of the proposed development for badgers are provided in a confidential Appendix (9.2) [APP-322] to the ES.

#### ***Public Sector Equality Duty***

- 3.5.11 The decision maker must also have regard to the public sector equality duty (PSED) set out in s149 of the Equality Act 2010. This requires public authorities to pay due regard in the exercise of their functions to the need to:

- eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;
- advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it; and,
- foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

- 3.5.12 We consider that the application provides an appropriate level of detail for any relevant effects to be identified and taken into account as part of the decision making process in accordance with the NPSNN and the PSED.

### **3.6 TRANSBOUNDARY EFFECTS**

- 3.6.1 Under Regulation 24 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (EIA Regs) the Planning Inspectorate on behalf of the SoS has concluded that the proposed development is not likely to have significant effects on the environments in another European Economic Area (EEA) State.

- 3.6.2 In reaching this view the Planning Inspectorate has applied the precautionary approach<sup>21</sup>. The conclusions have been published in the Transboundary Screening matrices produced on behalf of the SoS dated 9 October 2014 [OD-003] and 14 May 2015 [OD-004]. These screening reports confirm that environmental effects are likely only to arise in a localised area and that no significant effects are identified which could impact on another EEA State. Transboundary issues consultation under Regulation 24 of the EIA Regulations is therefore not considered necessary.
- 3.6.3 Having regard to these reports and having kept the matter under review throughout the Examination, we are satisfied with regard to Regulation 7 of the Infrastructure Planning (Decisions) Regulations 2010 that there are no outstanding Transboundary issues that would prevent the Order from being made.

### **3.7 DEVELOPMENT PLANS**

- 3.7.1 The Applicant sets out relevant policies from the development plans for each of the 11 local authorities in which the proposed development is located in an appendix to the planning statement [APP-089]. The local planning context in respect of air quality is set out in an appendix to the ES [APP-308].
- 3.7.2 The development plans applicable to our consideration of the proposed development are listed to be:
- West Berkshire Development Plan Core Strategy 2012;
  - West Berkshire District Local Plan Saved Policies September 2007;
  - Local Transport Plan for West Berkshire 2011-2026;
  - Reading Borough Local Development Framework: Core Strategy January 2008;
  - Reading Borough Council: Sites and Detailed Policies Document October 2012;
  - Wokingham Borough Core Strategy Adopted January 2010;
  - Wokingham Borough Managing Development Delivery Document (Local Plan) February 2014;
  - Wokingham Council Local Transport Plan 2011 – 2026. 2011;
  - Royal Borough of Windsor and Maidenhead Local Plan Adopted 2003;
  - Windsor and Maidenhead Local Transport Plan 2012 – 2026. July 2012;
  - Slough Local Plan March 2004 (Saved Policies December 2010);
  - Slough Local Development Framework Core Strategy 2006 - 2026 (December 2008);
  - Slough Local Transport Plan April 2011 – 2026;

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<sup>21</sup> As explained in the Planning Inspectorate Advice Note 12 Transboundary Impacts Consultation.

- Bracknell Forest Borough Local Development Framework Core Strategy February 2008;
- Bracknell Forest Local Plan 2002 (Saved Policies September 2007);
- Bracknell Forest Local Transport Plan 2011- 2026;
- South Buckinghamshire Local Plan 1999 (Saved Policies September 2007);
- South Buckinghamshire Core Strategy –February 2011;
- South Buckinghamshire District Transport Strategy 2010;
- Hillingdon Local Plan: Part 1 - Strategic Policies (November 2012);
- London Borough of Hillingdon UDP September 1998. (Saved Policies September 2007);
- Hillingdon Unitary Development Plan saved policies September 2007;
- London Borough of Hillingdon Local Plan Part 2 Proposed Submission Version Development Management Policies;
- London Borough of Hillingdon Local Implementation Plan April 2011;
- London Borough of Hounslow Unitary Development Plan 2003 (Saved Policies 2007);
- London Borough of Hounslow Local Plan Proposed Submission 2014;
- Hounslow Transport Plan;
- Further Alterations to the London Plan March 2015;
- Mayor’s Transport Strategy (May 2010); and
- Buckinghamshire County Council Local Transport Plan 2011.

***Slough BC submissions***

- 3.7.3 In its LIR [REP2-047], SBC confirms that Appendix 1 to the Planning Statement [APP-089] accurately identifies the adopted local development and transport plans. But the Council clarifies that whilst reference is correctly made in the document to the *Action Plan for Slough Air Quality Management Areas Nos. 3 and 4* (November 2012), the *Action Plans for Air Quality Management Areas No. 1 (M4 corridor) and No. 2 (Brands Hill)* were included in Annex C of the *Second Local Transport Plan* (March 2006) which superseded the provisional document of July 2005 referred to in the Planning Statement. Furthermore, these action plans were revised and specific measures incorporated into the SBC’s *Third Local Transport Plan 2011- 2026*.
- 3.7.4 SBC also contends that in respect of Appendix 1’s coverage of the *Third Local Transport Plan 2011- 2026*, ‘Supplementary Strategy Documents’ that give further details on the Borough’s local transport strategy should also be included. Of particular relevance are those relating to network management and Intelligent Transport Systems (ITS).

### **SBDC submissions**

- 3.7.5 In its LIR [REP2-050], SBDC contends that six policies from the District's adopted plan (comprising saved policies from its *1999 Local Plan* and saved policies from its *2011 Core Strategy*) are not considered in Appendix 1 of the Planning Statement [APP-089], and nor are any of the policies that SBDC identifies as being of potential relevance to the proposed development from its *Minerals and Waste Local Plan 2004-2016*.

### **LBHill submissions**

- 3.7.6 In its LIR [REP2-060.1 to REP2-060.30], LBHill contends that the Borough's *Emerging Development Management Policies Document* (2014), due to be issued for a further round of consultation in autumn 2015, is of relevance to the proposed development, and should be afforded significant weight in the decision making process. The proposed submission version of the document was issued in October 2015.
- 3.7.7 LBHill also contends that in addition to the policies identified in the Planning Statement, there are 15 further policies from its *Local Plan Part 1* and saved from its *Unitary Development Plan* (1998) which are relevant to the application process but are not identified by the Applicant. These are tabulated in the its LIR, alongside three additional planning guidance documents which are also identified as absent from the Applicant's policy assessment:
- *Planning Obligations Supplementary Planning Document* (SPD) July 2014;
  - *Noise SPD* adopted May 2006; and
  - *The Air Quality Action Plan* [REP2-060.2].

### **Conclusion on Development Plans**

- 3.7.8 The local policy position set out in the application is not disputed by any other local authorities or any other IPs.
- 3.7.9 Unlike applications which fall to be considered under the Town and Country Planning Act 1990, an NSIP is not required to be determined in accordance with the policies of the development plan. Nevertheless, relevant development plan policies are a consideration to be taken into account in reaching a decision (NPSNN paragraph 1.3).
- 3.7.10 Three local authorities have made submissions relating to additional policies or publications that are relevant to the consideration of the project. We have taken account of all relevant development plan policies in reaching our conclusions in this case, but note that the NPSNN comprises the primary basis for making decisions on development consent applications for NSIPs.

## **4 FINDINGS IN RELATION TO POLICY AND FACTUAL ISSUES**

### **4.1 MAIN ISSUES IN THE EXAMINATION**

#### ***Initial Identification of Principal Issues***

- 4.1.1 The ExA's initial identification of principal issues was published on the 7 August 2015 as Annex B to the Rule 6 letter [PD-004]. This forms an initial assessment of the issues based on the application documents and submitted relevant representations. The list of issues relates to both the construction and operation phases of the proposed development.
- 4.1.2 It includes matters relating to policy as set out in the NPSNN, the extent to which the proposed development would comply with the policies of Local Development Plans, and whether not that part of the proposed development located in the MGB would constitute inappropriate development.
- 4.1.3 Issues are identified in relation to the environment, which include the impact on landscape, including the effect on the North Wessex AONB; the visual impact of the proposed development; whether there would be any increase in flood risk; effects on nature conservation; impacts on air quality; the effects on the noise environment and the effects of the proposed development on heritage assets.
- 4.1.4 Under the heading of engineering and design issues relating to whether the "smart motorway" is the most appropriate measure to meet the need identified in the NPSNN there is the extent to which the design meets the requirements for good design in the NPSNN, and the extent to which engineering details and design, including mitigation measures, have been agreed with the 11 relevant local authorities.
- 4.1.5 Matters relating to the impact of the proposed development on road users include traffic safety, the impact on traffic flows in roads in the surrounding area, and the effect on the safety or convenience of NMU forms of travel.
- 4.1.6 The DCO application includes provision for the CA of land, and issues are identified relating to the tests set out in sections 122(2) and 122(3) of the PA2008. There are also issues relating to the acquisition of allotment land, common land and any public open space.
- 4.1.7 Finally socio-economic benefits or disbenefits are identified as a principal issue, and provision is made for other matters to be added.
- 4.1.8 The issues identified in the Rule 6 letter have informed the matters considered by the ExA throughout the Examination. Further issues have been raised as the Examination has progressed as a result of submissions from IPs and APs, and issues have also been raised by local authorities in their LIRs. We consider all the issues raised

throughout the Examination and deal with them where relevant and appropriate in this report.

### ***Issues arising from further submissions***

4.1.9 In response to Annex B to the Rule 6 Statement [PD-004] and at the PM on the 3 September 2015 [EV-001 and EV-002], submissions were made by a number of parties requesting that additional issues be considered in the Examination. These requests include:

- compliance with other recent or emerging policy developments;
- compatibility with national, regional and local strategies to increase uptake and mode share for public transport, walking and cycling;
- modelling and scenarios of traffic generation and impact on the business case of other scenarios in the 2015 National Road Traffic Forecasts;
- whether the results of the air quality assessment are reliable.
- cumulative impacts including the impact of Heathrow Airport expansion and of the LBHill emerging Local Plan Part 2 site allocation document in the modelling;
- effects of the proposed development and potential alternatives on carbon emissions including embodied carbon in engineering works;
- whether alternatives such as peak time only hard shoulder running (HSR) have been adequately considered;
- impact on the water environment, such as the quality and aquatic life of water bodies which receive runoff from the M4, including the Frogs Ditch watercourse;
- insufficient details of replacement planting and landscaping;
- the impact of the temporary use of CCs on nature conservation;
- whether the extent of temporary land acquisition at Sipson Road is justified;
- whether the design specification for land under temporary acquisition must be agreed with the relevant local authority;
- whether there is sufficient information about temporary closure of pedestrian subways and public rights of way to allow the impact on local residents to be properly assessed; and
- whether there is sufficient information about mechanisms for securing the details of the proposals such as requirements or legal agreements.

4.1.10 Issues raised in submissions informed both the first and second round questions raised by the ExA [PD-005 and PD-011, respectively]. A number of the locations identified by IPs were included within the ASIs, and issues such as air quality and traffic forecasting which required detailed questioning were included in the ISHs on the environment.

### ***Issues arising in Local Impact Reports***



- 4.1.11 Five LIRs were submitted by local authorities and have been considered by the Applicant. In this Chapter, we report the issues raised, and indicate whether we consider that they have been adequately addressed in the course of the Examination or whether the matter has remained as an outstanding issue to be considered in detail in our report. Where an issue remains to be considered in more detail, we deal with it in Chapter 5 under the relevant topic heading.
- 4.1.12 Where an issue has been raised by more than one local authority, we do not repeat detailed matters in relation to that issue for more than one LIR.
- 4.1.13 Although RBWM did not submit a LIR, a written representation was made at Deadline II which sets out the Council's position. We report that position below.

*London Borough of Hillingdon*

- 4.1.14 In response to issues raised in the LBHill LIR [REP2-060.1 to REP2-060.30], the Applicant confirms [REP3-017.1] that the fourteen footpaths including the four PRoW which cross the M4 motorway within the Borough would not be affected by the proposal. Any temporary effects on rights of way would be addressed in the Construction Environment Management Plan (CEMP) [APP-293, REP9-002], including the temporary disruption of pedestrian access during construction works at Sipson subway which would affect access to the Cherry Lane Primary School. We consider whether the matter of disruption to PRoW has been adequately addressed in the outline CEMP later in this report.
- 4.1.15 Impact on the Frogs Ditch watercourse has been assessed by the Applicant and mitigation measures would be in place to ensure there is no harmful impact on the waterbody. Although an ERA would be constructed adjacent to the Frogs Ditch, there is no requirement for culverting or realignment of the watercourse. We therefore consider that this issue has been addressed.
- 4.1.16 Issues arising from the presence of a designated AQMA in LBHill, and the requirements of the Council's AQAP, remained in contention throughout the Examination. The means for securing mitigation measures has been an issue for LBHill.
- 4.1.17 In relation to traffic modelling, LBHill is concerned that there is no information of changes in traffic flows on roads managed by LBHill. Traffic flow information has been supplied by the Applicant to local authorities with indications of the scale of effect on key routes within their respective administrative areas. It is acknowledged that in the case of LBHill, the routes illustrated are managed by either HE or TfL but these are the key routes that demonstrate impact of the scheme in this area. LBHill's concerns regarding the impact on local roads remained outstanding at the close of the Examination.

- 4.1.18 LBHill identifies significant impacts on the quality of Cranford Park and requests improvements to the Park access. The extent of the impact is disputed by the Applicant and no access improvements are put forward.
- 4.1.19 Issues are raised as to the routing of construction traffic. A detailed Construction Traffic Management Plan (CTMP) [APP-298, REP8-010, REP8-011] is proposed to provide the designated routing of vehicles throughout the construction of the project, and this would ensure that minimal use is made of the local road network and only in order to gain access to new structures where access cannot be gained directly from closures on the motorway itself. The CTMP would be subject to consultation with the relevant local authorities and approval by the SoS, and we are satisfied that the impact on local roads would be minimised as far as possible.
- 4.1.20 CC 11 on Stockley Road is proposed to be utilised for the recovery service during the highway works for the eastern section of the scheme between Junction 8/9 and Junction 3. It would also be used to store the various materials associated with the bridge and highway works. LBHill is seeking mitigation for the use of, and associated traffic movements for, this site. Routing and delivery of materials would be dealt with through the CTMP [REP3-023.12], and mitigation of the activities within the site would be dealt with through the CEMP [REP9-002].
- 4.1.21 These documents would be subject to consultation and final approval by the SoS through Requirements 8 and 18 of the DCO. Furthermore the contractor would enter Section 61 Agreements under the Control of Pollution Act 1974 with relevant local authorities. In these circumstances we consider that impacts from the use of CC and associated traffic movements would be managed as far as possible to reduce impacts on local residents.
- 4.1.22 LBHill requests improvements to all subways which cross the M4 as part of the proposed development. However, works are required to just two subways [APP-096], at Sipson Road and Langley Interchange (in SBC) and there are no proposals to upgrade the subways. We find no reason to require upgrading since this would not constitute mitigation necessary for the proposed development to be acceptable.
- 4.1.23 An outstanding issue remains concerning the cumulative effects of other major developments with the proposed development, both during construction and operation. LBHill (with other local authorities) identifies other development which it considers should be included in the cumulative assessment of environmental effects, in particular air quality, and in terms of the impact of traffic diverted to local roads during construction [REP4-032].
- 4.1.24 LBHill has a number of locations in which air quality is either close to or in breach of EU limit values and is concerned as to the impact on the health of local residents. The Council disputes the methodology

and approach adopted by the Applicant in assessing the significance of air quality impacts. The Applicant has adopted the methodology used in Interim Advice Note (IAN) 174/13<sup>22</sup>. This advises that an increase in NO<sub>2</sub> levels of no more than 0.4ug/m<sup>3</sup> is not significant, including in areas in which air quality is in breach of EU limit values. LBHill considers that the impacts of the proposed development on air quality have not been adequately assessed and that mitigation should be provided for the increased levels of pollution which would arise. This matter is considered in detail in Chapter 5.

- 4.1.25 Other issues were raised relating to climate change impacts. The Applicant has followed the requirements of the NPSNN and assessed the carbon impact of the proposed development having regard to the Government's carbon budgets. The London Plan Policy 5.2 requires developments to contribute to energy reduction, and LBHill states that the proposed development is in conflict with that policy. This policy is primarily concerned with carbon dioxide reduction in buildings through target setting and is not directly applicable to the proposed development. Nevertheless the Applicant points out that all its schemes have regard to reduction of energy consumption, for example through the use of LED lighting, sustainable use of materials and recycling of waste where possible. We find that there is no conflict with the London Plan Policy 5.2.
- 4.1.26 A number of matters are raised by LBHill concerning the impact of noise and vibration from the proposed development, and the assumptions relating to existing noise barriers and ground levels of residential properties adjacent to the motorway. Further work was carried out by the Applicant in the course of the Examination and an enhanced noise mitigation strategy was produced [REP8-014].
- 4.1.27 Issues relating to land contamination are raised by LBHill, in particular in relation to the proposed Stockley CC. Requirement 12 in the draft DCO [REP9-004] deals with ground investigation before the start of any development, and the CEMP [REP9-002] provides for a geotechnical risk assessment of the CC before any use commences. As a result we consider that this matter is adequately addressed.
- 4.1.28 Heritage issues relating in particular to the areas between Junctions 3 and 4 are raised by LBHill. Other matters raised by the Council include impact on landscape and visual amenity, vegetation clearance and replanting, drainage, flood risk, water quality and pollution control, ecology and the community [REP2-060.1 to REP2-060.30].
- 4.1.29 Issues relating to the temporary or permanent acquisition of land within the ownership of LBHill [REP2-060] are addressed in Chapter 7 of this report. Issues relating to the DCO are addressed in Chapter 8.

*London Borough of Hounslow*

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<sup>22</sup> <http://www.standardsforhighways.co.uk/ians/pdfs/ian174.pdf>

- 4.1.30 LBHo draws attention to the development plan policies which apply within the Council's area. The main issues raised by the Council relate to the Applicant's assessment of air quality and the impacts of road traffic noise on local residents.

*Slough Borough Council*

- 4.1.31 Issues raised by SBC relate to air quality, having regard to the Council's air quality action plans incorporated within *Slough's Third Local Transport Plan 2011- 2026 (LTP3)*, noise, the use of public transport, effect on local roads and public rights of way, heritage assets, landscape and visual amenity both during construction (including CC8 and CC9) and operation.
- 4.1.32 The Council is also concerned that the Applicant should provide evidence that it has considered "*reasonable opportunities to deliver environmental and social benefits*" as part of the Scheme (NPSNN paragraph 3.3); and "*use reasonable endeavours to address the needs of cyclists and pedestrians in the design of new schemes*" (NPSNN paragraph. 3.17).
- 4.1.33 We consider the issue of environmental and social benefits throughout the report, and also deal with the issues relating to the needs of cyclists and pedestrians.
- 4.1.34 In relation to Green Belt, SBC agrees that very special circumstances apply, but not necessarily in the case of the proposed CC. We carry out an assessment of the proposed development in respect of Green Belt policy later in this Chapter, and consider the question as to whether it would be inappropriate development in Chapter 5. We consider the issue of very special circumstances in our conclusions in Chapter 6.
- 4.1.35 Concerns are also expressed by SBC (and other local authorities) that the provisions of the CEMP are not sufficient to secure mitigation of construction impacts. The CEMP was amended in the course of the Examination to meet concerns expressed by local authorities. Furthermore, it will be subject to further consultation with local authorities and the EA prior to submission to the SoS for approval, and, as stated in relation to LBHill's concerns, the contractor will enter Section 61 Agreements under the Control of Pollution Act 1974 with relevant local authorities. In these circumstances we consider that construction effects would be adequately controlled and mitigated.
- 4.1.36 Issues relating to the temporary possession or CA of land within the ownership of SBC are addressed in Chapter 7.
- 4.1.37 Other matters raised by SBC relate to the cumulative effect on construction impacts of other strategic infrastructure schemes which have not been taken into account by the Applicant. SBC refers to the Western Rail Link to Heathrow due for construction between 2017 and 2021; the HEx depot at Langley due for construction between 2017 and 2019; and the possible third runway at Heathrow Airport.

- 4.1.38 The Government had not, at the time of drafting this report, come to any view as to whether a third runway should be constructed at Heathrow. As a result there is no proposal capable of being assessed in the context of the proposed development. The proposal for a Western Rail Link to Heathrow is at an early stage and any application for its construction would therefore need to take the proposed development into account when assessing the effect of the proposals. We do not therefore consider it to be necessary for these schemes to be taken into account in the cumulative impact assessments.
- 4.1.39 Although HEx is dependent on Royal Assent for the HS2 Bill, that Bill is at an advanced stage in its procedures, and full details of the scheme are available for any assessment of impact to be taken into account. Since it is the potential for cumulative impacts during the construction phase which cause concern to SBC, a provision has been put forward within the CEMP to ensure that impacts from the construction of other major infrastructure projects during the construction phase of the proposed development are taken into account in mitigation [REP9-002]. The CEMP is secured by Requirement 8 in the draft DCO [REP9-004], and we find that adequate provision would be made for the cumulative impact of major schemes during construction.

*South Bucks District Council and Buckinghamshire County Council*

- 4.1.40 A principal issue of concern to BCC and SBDC is the impact of traffic during the construction phase on the local road network [REP2-050]. In particular there is concern that the works would increase congestion on the A4 over a two year period.
- 4.1.41 There is also concern arising from the closure of roads during the construction period, in particular Old Slade Lane and Marsh Bridge Road for the replacement of the two bridges. Impacts are identified by the Councils relating to severance to access for local communities and to noise and disruption for local residents [REP2-050].
- 4.1.42 The Thames Path and Colne Valley Trail are long distance national/regional rights of way likely to be affected during the construction phase of the proposed development. The Thames Path passes below the M4 underneath the Thames Bray bridge and there would be some temporary closure to the cycleway/footway on the north side of the bridge. The closure for 1 year of the Old Slade Lane Bridge would sever the access route that carries the Colne Valley Trail across the M4.
- 4.1.43 The Applicant proposes to deal with all issues relating to vehicular and non-vehicular traffic through the CTMP [REP8-010]. Consultations would be carried out with stakeholders and local authorities. Alternative routes would be identified where rights of way are temporarily closed. The CTMP would form an annex to the CEMP [REP9-004], which is required to be approved by the SoS before the start of any development in accord with Requirement 8 of the DCO.

The CTMP is also specifically secured through Requirement 18, *Construction traffic management*.

- 4.1.44 We consider in detail the impacts of the construction phase on vehicular and non-vehicular traffic. SBDC raises detailed issues relating to the impact of the proposed development on air quality in the South Buckinghamshire AQMA. Impact on air quality is an important issue which we address in detail. Noise impacts arising from on-line construction, the demolition and reconstruction of bridges and the use of the CC during construction are also considered.
- 4.1.45 Other issues raised by SBDC and BCC include effects on ecology including aquatic ecosystems, ancient woodland, trees subject to Tree Preservation Orders, landscape and visual impact, heritage assets, Green Belt, drainage and flood risks. We address these matters under the relevant topic headings in Chapter 5.
- 4.1.46 BCC raises a number of issues in regard to minerals and waste. The CEMP together with the Materials Management Plan (MMP) would deal with the use and sourcing of materials, storage and recycling of reusable materials. As much material would be re-used on-site as possible. We consider this matter and find that issues relating to materials and waste would be adequately addressed by the Applicant through the provisions of the CEMP which is required to be subject to consultation with the EA and local authorities followed by approval by the SoS in accordance with Requirement 8 of the DCO.
- 4.1.47 In the LIR [REP2-050] the Councils identify a list of businesses and community facilities which would experience some impacts from the proposed development, mainly through the construction phase. Impacts would result from permanent or temporary land take and or disruption to amenity during construction. Other businesses might suffer disruption as a result of the closure of access roads or non-vehicular rights of way. We consider these impacts in detail in Chapter 5 and Chapter 7.
- 4.1.48 In terms of cumulative impacts, SBDC and BCC refer to the developments raised by Slough, and add the Slough International Freight Exchange proposed to the south of the M4 adjacent to Iver [REP2-050]. The proposal has been the subject of a planning appeal (APP/J0350/2171967) and the decision of the SoS had not been issued at the time of the closure of the Examination. The Councils are concerned about the cumulative effect of construction impacts should the development of other major infrastructure schemes coincide with that of the proposed development.
- 4.1.49 The Applicant states that the CTMP would have regard to the effects of other infrastructure projects as part of the process for managing construction traffic and for identifying diversion routes. We find that adequate provision would be made to deal with these potential impacts.

*Reading Borough Council*

- 4.1.50 The main issues of concern to RBC relate to the safety of traffic using the proposed development as a result of the use of the hard shoulder for ALR; and the congestion which could result from the closure of lanes following an accident, and the diversion of traffic on to the local road network [REP2-056]. In addition, the Council argues that justification for the proposed development and its safety has not been fully assessed by the Applicant, and alternatives such as road widening should be considered. We deal with road safety in Chapter 5, and consider the matter of alternatives later in this Chapter.

*Royal Borough of Windsor and Maidenhead*

- 4.1.51 As a member of the Thames Valley Local Economic Partnership, RBWM is supportive of the proposal to convert the M4 into a smart motorway [REP2-030]. The proposed development would 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 would help maintain the Borough's connectivity across the Thames Valley and the wider area, as well as to London and to Heathrow airport.
- 4.1.52 Nevertheless, the Council is concerned that the traffic impact on motorway junctions, approach roads and local roads is not clearly identified. There are also concerns about road safety with the introduction of ALR, and the impacts of any changes to lighting should also be considered. We address these issues in Chapter 5.
- 4.1.53 The use of construction work compounds and of local roads by construction traffic is raised, together with the cumulative effects which may arise as a result of the timetabling of the construction of other major projects. This is a matter of concern to other local authorities which the Applicant seeks to address through the CEMP [REP9-003] and the CTMP [REP3-023.12].
- 4.1.54 The Bray/M4 AQMA is within the Council area, and road traffic is considered to be the dominant source of pollution. With the increase in capacity of the M4, emissions could increase, and with the use of ALR the distance between the traffic lane and sensitive receptors would be reduced. RBWM points out that historically the rates of improvement in air quality and future year projections of declining concentrations have always been overestimated. Given the degree of uncertainty about the rate of improvement in air quality the Council considers that it would be reasonable to adopt a precautionary approach and consider potential control measures.
- 4.1.55 The use of low noise surfacing is welcomed, but - according to RBWM - with running lanes moved closer to sensitive receptors, further mitigation should be adopted.
- 4.1.56 RBWM suggests that the proposed development is an opportunity to improve air quality and noise impact within the area through the

increase in height of existing noise barriers and the erection of additional noise barriers. In particular noise barriers would need to extend 350 metres to the west and 250 metres to the east of Windsor Road Overbridge.

4.1.57 Impacts on PRow are raised in respect of:

- Thames Path National Trail;
- Marsh Lane (Bridge 3);
- Datchet Footpath; and
- The reinstatement of ten paths which cross the M4 in the Borough.

4.1.58 We consider the matters raised by RBWM in Chapter 5.

## **4.2 CONFORMITY WITH THE NATIONAL PLANNING POLICY FRAMEWORK AND DEVELOPMENT PLAN POLICIES**

4.2.1 It is stated at paragraph 3 of the NPPF that it does not contain specific policies for NSIPs. This accords with s104 of PA2008 which requires an application for development consent to be determined in accordance with the relevant NPS, in this case the NPSNN.

4.2.2 The NPSNN notes at paragraph 1.17 that the overall strategic aims of the NPS and the NPPF are consistent, and at paragraph 1.18 that the NPPF is likely to be an important and relevant consideration in decisions on NSIPs, but only to the extent relevant to the project. Those parts of the NPPF (29-41) which relate to transport are largely focussed on transport arrangements arising from development. In relation to sustainable transport, the NPPF states that "*encouragement should be given to solutions which support reductions in greenhouse gas emissions and reduce congestion.*" It is a primary objective of the proposed development to reduce congestion and to that extent the project complies with the NPPF. Nevertheless, in this case the specific policies relating to the need for the project, its design and environmental impacts are set out in the NPSNN.

4.2.3 Parts of the route of the M4 are located in the Green Belt, and consideration must be given as to whether or not the new works and the associated CC would be inappropriate development in the Green Belt. The NPSNN refers to the NPPF (5.164) for information on the purposes and protection of Green Belt, and the general presumption against inappropriate development in the Green Belt is identified (5.170, 5.178). In referring to inappropriate development, the NPSNN refers back to the NPPF which defines inappropriate development (89, 90) and therefore it is to this part of national policy which we refer when we turn to assess the impact on Green Belt in Chapter 5 and in our conclusions as to whether development consent should be granted.

## **4.3 THE PRINCIPLE OF THE DEVELOPMENT AND CONFORMITY**



## WITH THE NPSNN

- 4.3.1 The M4 motorway forms a part of the strategic national road network. The NPSNN (paragraph 2.2) identifies *"a critical need to improve the national networks to address road congestion ---- to provide safe, expeditious and resilient networks that better support social and economic activity"* and also states *"Improvements may also be required to address the impact of the national networks on quality of life and environmental factors."*
- 4.3.2 It is further stated in the NPSNN paragraph 2.22 that *"the government has therefore concluded that at strategic level there is a compelling need for development of the national networks - both as individual networks and as an integrated system"*
- 4.3.3 The strategic case for providing additional capacity on the M4 within the Thames Valley was first examined in 'The Thames Valley Multi-Modal Study' (TVMMS, 2003)<sup>23</sup>. The purpose of the TVMMS was *"to identify the most effective means of addressing current and future transport-related problems in the Thames Valley"*.
- 4.3.4 The Planning Statement (APP-089) states that *"consideration was given to a range of potential multi-modal interventions (as set out in Government transport policy) to address the transport problems within the Thames Valley"*. It also notes (paragraph 3.1.13) that the proposed *"strategy recognised that even with travel demand management and public transport enhancements in place, the overall magnitude of car-based demand would remain higher than now"* and that *"congestion will remain and, in specific areas, may intensify significantly, eroding some of the wider benefits delivered by a wider strategy."* Consequently, even if better public transport links were provided, car-based demand on the M4 is such that improvements to the M4 to relieve congestion would still be required.
- 4.3.5 The NPSNN considers a range of options for addressing the need, including maintenance and asset management, demand management and modal shift, but concludes that relying on these options, or a combination of them, would not be desirable or viable as a means of managing need. Furthermore, without improving the road network, including its performance, (NPSNN paragraph 2.22) *"it will be difficult to support further economic development, employment and housing and this will impede economic growth and people's quality of life. The government has therefore concluded that at a strategic level there is a compelling need for development of the national road network"*.
- 4.3.6 Implementing "smart motorways" is an improvement and enhancement selected in the NPSNN (paragraph 2.23). Other parties

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<sup>23</sup> [http://democratic.bracknell-forest.gov.uk/Data/Environment%20Select%20Committee/20030306/Agenda/esc030306\\_08%20Thames%20Valley%20Multi-Modal%20Study.pdf](http://democratic.bracknell-forest.gov.uk/Data/Environment%20Select%20Committee/20030306/Agenda/esc030306_08%20Thames%20Valley%20Multi-Modal%20Study.pdf)

to the Examination suggest that alternatives to a full smart motorway scheme have not been properly assessed. However, a range of wider alternatives such as more use of different modes of transport were considered through the TVMMS of 2003. The study area included the M4 between Junctions 3 and 12. The study concludes that without intervention, peak time road congestion would intensify on roads which are already congested, resulting in increasingly unreliable journeys which affect private vehicle users, as well as freight and public transport operators.

- 4.3.7 The TVMMS also made it clear that *"proposals for major enhancements to the highway capacity, either through new roads or widening of the existing trunk routes, are severely constrained because of the very high quality of the Thames Valley environment"*.
- 4.3.8 The proposed TVMMS strategy includes travel demand management through transport plans, and improved accessibility through improved public transport. However, it was recognised that the overall magnitude of car-based demand would continue to grow, and improved management of road space through design and information was selected as a third part of the strategy for the Thames Valley.
- 4.3.9 In 2009, DfT published *"Britain's Transport Infrastructure Motorways and Major Trunk Roads"*<sup>24</sup> which notes in paragraph 20 *"For the Sections where we had previously been considering motorway widening, we were able to compare this directly with hard shoulder running (HSR)<sup>25</sup>. This more detailed work suggests that in all cases where there was originally a proposed widening solution, HSR would provide a feasible alternative; and that on average it would save around 40% of capital costs, while for particular schemes savings could be almost 60%. HSR schemes provide the majority of benefits that widening would, generally at a lower cost to the environment. Combining this with the fact that capital costs are significantly lower means that the value for money of HSR is generally higher."*
- 4.3.10 Given the increased cost, land requirements and environmental impacts, road widening has not been considered as a suitable option for the M4. Operational options which have been considered for the M4 are set out in the Engineering and Design Report [APP-096] paragraph 5.1.11 Table 4. These include the HSR option and also the ALR option.
- 4.3.11 The application project has been the subject of a business case prepared in accordance with HM Treasury Green Book principles<sup>26</sup> as required by the NPSNN (paragraph 4.5). It has been subject to full options appraisal before achieving its status as a committed scheme

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<http://webarchive.nationalarchives.gov.uk/20100202141849/http://www.dft.gov.uk/pgr/roads/network/policy/motorways/motorways.pdf>

<sup>25</sup> Hard shoulder running schemes are generally those in which the hard shoulder is only used during peak periods or periods of congestion.

<sup>26</sup> <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>

within the RIS 2015<sup>27</sup>. The NPSNN states (paragraph 4.27) that *"where options have been subject to full options appraisal in achieving their status within the Road or Rail Investment Strategies or other appropriate policies or investment plans, option testing need not be considered by the examining authority or the decision maker"*.

4.3.12 The proposal for a smart motorway between Junctions 3 to 12 is in accordance with NPSNN paragraph 2.23 which specifically supports such enhancements. As stated in NPSNN paragraph 4.2, *"subject to the detailed policies and protections in this NPS, and the legal constraints set out in the Planning Act, there is a presumption in favour of granting planning development consent for national networks NSIPs that fall within the need for infrastructure established in this NPS."*

4.3.13 Whilst there are a number of issues raised in submissions to the Examination relating to the effect on the environment and road safety, it should be noted that there is support for extra capacity to be provided on the M4 from a number of local authorities and IPs. For example:

- RBC accepts the need for additional capacity to support additional traffic that will be generated by committed and allocated development along the M4 corridor, although it is concerned about the safety of ALR;
- the South Buckinghamshire Core Strategy, Policy CP7 seeks improved accessibility to services and a safer and more sustainable transport network.
- RBWM is part of the Thames Valley Local Economic Partnership which supports the M4 smart motorway project in its Strategic Economic Plan [REP2-030];
- the University of Reading is a major landholder and the developer of a Science Park at Shinfield adjacent to Junction 11. The University generally supports the scheme, provided that there is no harmful impact on congestion at Junction 11. Additional capacity on the motorway together with a reduction in congestion and the improved reliability of journeys is welcomed [RR-301]; and
- motoring bodies such as the Royal Automobile Club (RAC) [REP2-029] support the use and expansion of smart motorways, although a preference is expressed for the HSR option rather than ALR as proposed for the M4, in consideration of the safety of users.

4.3.14 We therefore consider that in terms of the need for enhancements to the existing national road network, the proposed development is in conformity with the NPSNN. As a smart motorway, it would fall within the list of options for enhancement identified in paragraph 2.23 of the

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<sup>27</sup> <https://www.gov.uk/government/publications/road-investment-strategy-for-the-2015-to-2020-road-period>  
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M4 Junction 3 to 12 Smart Motorway

NPSNN, and as such it would provide increased capacity and improved performance.

- 4.3.15 As a part of the SRN, the proposed development would deliver the additional capacity which is needed to support economic development at a local and national level. We deal with the environmental effects of the scheme and consider the issue of road safety in Chapter 5, and as a result we find that no further consideration of alternative options is justified.

#### **4.4 ENVIRONMENTAL STATEMENT AND ENVIRONMENTAL IMPACT ASSESSMENT**

- 4.4.1 As stated in NPSNN Section 4.15, all proposals for projects which are subject to the European Environmental Impact Assessment Directive<sup>28</sup> and are likely to have significant effects on the environment, must be accompanied by an ES describing the aspects of the environment likely to be significantly affected by the project<sup>29</sup>.
- 4.4.2 The ES submitted in support of the DCO application [APP-136 to APP-358] includes an assessment of the effects of the construction and operation of the proposed development on human beings, fauna and flora, soil, water, air, climate, the landscape, material assets and cultural heritage, and the interaction between them, as required by the Directive. The mitigation measures proposed as part of the design and operation of the proposed development together with their regulatory control mechanisms are summarised in the Table of Mitigation (ToM) which was updated in the course of the Examination [REP7-010].
- 4.4.3 LBHill [REP2-060.1 to REP2-060.30] and others challenge the compliance of the ES with the EIA directive. We carry out our detailed assessment of the issues relating to the environment in Chapter 5, but overall we find that we are satisfied that the ES, together with the other information submitted by the Applicant during the Examination, is adequate and that it meets the requirements under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 as amended (EIA Regulations 2009)<sup>30</sup>. The Panel has taken full account of the environmental information in the assessment of the application and in making its recommendation to the SoS.
- 4.4.4 Environmental management of the project is secured in accordance with Design Manual for Roads and Bridges (DMRB) Volume 11 Section 2 Parts 5 and 6, and the advice in IAN 183/14<sup>31</sup> through an Environmental Management Plan (EMP). An outline EMP [APP-299]

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<sup>28</sup> Council Directive 92/2011

<sup>29</sup> The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (SI2009/2263)

<sup>30</sup> Statutory Instrument 2009 No 2263

<sup>31</sup> <http://www.standardsforhighways.co.uk/ians/pdfs/ian183.pdf>

provides the overarching tool for managing the environmental effects of the project, and includes a plan for ensuring environmental commitments and actions are accurately recorded and implemented effectively on the ground. The EMP is secured through Requirement 7, *Environmental Management Plan* of the DCO, and must be submitted to and approved by the SoS following consultation with the relevant planning authorities and the EA prior to the commencement of development.

4.4.5 The outline EMP is described by the Applicant as a "living document" which evolves over the life of the project and it sets out the processes for the production and implementation of the CEMP [REP9-002] and of the Handover Environmental Management Plan (HEMP), to be developed during the construction period. The CEMP contains the control measures and standards to be implemented throughout the construction of the proposed development, as developed through the EIA and reported in the ES. It also provides the mechanisms for engagement with the local community and their representatives throughout the construction period.

4.4.6 Annexed to the CEMP, as daughter documents, are

- annex A outline Site Waste Management Plan [APP-294];
- annex B outline Materials Management Plan [APP-295];
- annex C outline Logistics Plan [APP-296];
- annex D outline Scheme Asbestos Management Plan [APP-297];
- and,
- annex E outline CTMP [APP-298; REP8-010].

4.4.7 Annex F to the CEMP includes the Heathrow Airport safeguarding map. Any other aviation safeguarding maps would be sought from local planning authorities in the detailed construction planning stage and before the main works commence. Heathrow Airport would be consulted when any tall structures are likely to be used during the construction phase, and a strategy for the use of cranes would be developed in consultation with the National Air Traffic Services (NATS) before works commence.

4.4.8 The outline CEMP has been amended and refined through the course of the Examination, in response to issues that have been raised by other parties. The final version of the CEMP [REP9-002] is secured through Requirement 8 of the DCO, and must be submitted to and approved by the SoS following consultation with the relevant planning authorities and the EA prior to the commencement of development.

4.4.9 Annexes A-D require approval as part of the CEMP, but Annex E, the CTMP, is secured separately through Requirement 18, *Construction Traffic Management* of the DCO.

4.4.10 Towards the end of the construction period, the CEMP would be refined into the HEMP which would set out the proposed strategy for the future maintenance and management of all environmental areas

and mitigation. Requirement 8, *CEMP* secures the operation and maintenance of the authorised development in accordance with the HEMP.

- 4.4.11 The ToM identifies the method for delivery of mitigation relating to each relevant Chapter in the ES. During the construction phase, measures for the control of pollution and mitigation of noise and vibration, dust, visual impact and general disturbance to residents and travellers would be secured through a number of requirements in the DCO; through the CEMP [REP9-002] which in turn is secured through Requirement 8; and through various tables and Sections of the ES as listed in the ToM against each potential impact or risk. The DCO does not suspend the operation of Section 61 of the Control of Pollution Act 1974 which would provide additional control in respect of noise and vibration.
- 4.4.12 For the operational phase, control and mitigation are again secured through a number of requirements in the DCO - through the CEMP until it is replaced by the HEMP, through the Drainage Strategy Report (DSR) [APP-123] which is secured through Requirement 14, through the Flood Risk Assessment (FRA) [APP-077, REP7-152] which is secured through Requirement 23, through environmental licences where required, and through various tables and Sections of the ES as listed in the ToM.
- 4.4.13 We assess the adequacy of the mitigation proposed through the mechanisms for environmental management which are secured through the requirements in the DCO in our consideration of the impacts of the proposed development and generally find that they are satisfactory and accord with the provisions set out in the NPSNN.
- 4.4.14 The EIA Directive requires projects with significant environmental effects to include an outline of the main alternatives studied by the Applicant and an indication of the main reasons for the Applicant's choice. We have dealt with the issue of alternatives in our consideration of the principle of the development and conformity with the NPSNN. Since this proposal has been subject to an options appraisal [APP-089] we are satisfied that there has been an adequate assessment of alternatives.

#### **4.5 FINDINGS AND CONCLUSIONS IN RELATION TO HABITATS REGULATION ASSESSMENT**

- 4.5.1 Detailed descriptions of the project and its location are provided by the Applicant in its ES [APP-136 through APP-358]. A summary of the main features of the proposal and site are presented in Chapter 2.
- 4.5.2 The project is not connected with or necessary for the management of nature conservation of any of the European sites considered within the Applicant's assessment, although this is not stated within either Chapter 9: *Ecology and Nature Conservation* of the ES [APP-149] or

the report entitled Assessment of Implications on European Sites (AIES) [APP-327]. No comments are raised from IPs regarding this point.

- 4.5.3 Chapter 9: *Ecology and Nature Conservation* of the ES [APP-149] identifies European sites at a range of distances from the proposed project for inclusion within the assessment. Firstly the Applicant identifies all European sites within 2km of the proposed development in line with DMRB HD44/09 guidance 'Assessment of Implications (of Highways and/or Road Projects) on European Sites (including Appropriate Assessment).
- 4.5.4 The Applicant carries out a further search for European sites where bats are a primary qualifying feature within 30km of the proposed development in line with DMRB HD44/09. The Applicant also considers sites which may be hydrologically linked to the proposed development via surface or groundwater.
- 4.5.5 A wider study area is considered for the air quality impact assessment which is carried out for Chapter 6: *Air Quality* of the ES [APP-146]. For this assessment, the Applicant considers impacts on European sites within 200m of an affected road link as a result of nitrogen dioxide and nitrogen deposition.

***European sites considered in the screening process for likely significant effects (stage 1)***

- 4.5.6 A total of 5 terrestrial European sites are considered in the Applicant's ES and AIES. These are:
- Molegap to Reigate Escarpment Special Areas of Conservation (SAC);
  - Southwest London Waterbodies Special Protection Areas (SPA);
  - Southwest London Waterbodies Ramsar;
  - Thursley, Ash, Pirbright and Chobham SAC; and,
  - Thames Basin SAC.
- 4.5.7 Two sites are scoped out at an early stage (Thursley, Ash, Pirbright and Chobham SAC and Thames Basin SAC) because the Air Quality Assessment determines that there would be no change or a small decrease in annual mean NO<sub>x</sub> at these sites. Table 6.23 of Chapter 6: *Air Quality* of the ES [APP-146] shows the significance of residual effects on receptors within 200m of affected roads as being not significant.
- 4.5.8 The remaining three European sites are taken forward into the AIES [APP-327]. This contains screening matrices for three European designated sites (and features) for which the UK is responsible.
- 4.5.9 The AIES concludes that likely significant effects on any sites and their qualifying features could be excluded.

- 4.5.10 NE [RR-276] states that it does not consider that there would be a likely significant effect upon Thursley, Ash, Pirbright and Chobham SAC or Thames Basin SAC.
- 4.5.11 In the SoCG between the Applicant and NE [REP2-008] it is concluded that NE agrees there would be no likely significant effects on two European designated sites:
- Thursley, Ash, Pirbright and Chobham SAC; and,
  - Thames Basin Heaths SAC.
- 4.5.12 However these sites are different to those for which the Applicant has provided screening matrices which are:
- Molegap to Reigate Escarpment SAC;
  - Southwest London Waterbodies SPA; and,
  - Southwest London Waterbodies Ramsar.
- 4.5.13 The ExA issued a Rule 17 request on 27 October 2015 [PD-008] to ask the Applicant to confirm which European designated sites had been considered /screened and to ask NE to confirm that it is satisfied with the Applicant's conclusion regarding effects on all European designated sites.
- 4.5.14 The Applicant confirms [REP3-007] that the identification of European designated sites for the purposes of assessment was undertaken having regard to the study area, the nature of the effects predicted and the locations of European designated sites. The Applicant carried out its search area in accordance with DMRB Volume 11, Section 4, Part 1, which identifies the following sites:
- Molegap to Reigate Escarpment SAC;
  - Southwest London Waterbodies SPA; and,
  - Southwest London Waterbodies Ramsar.
- 4.5.15 The Applicant also explains that the study area has been widened to consider air quality impacts and as a result of this the following two further sites are identified:
- Thursley, Ash, Pirbright and Chobham SAC; and,
  - Thames Basin SAC.
- 4.5.16 NE confirms [REP3-024] that it considered the three further European designated sites at an early stage but had scoped them out due to the nature, scale and location of the proposal in relation to the sites. NE confirms that there would be no impact on these three sites.

*Conclusion of screening exercise*

- 4.5.17 The Applicant concludes that there would be no likely significant effects on any European sites screened. The conclusions reached are supported by NE as the relevant statutory nature conservation body,



and we have no reason to disagree with that conclusion. We have therefore not proceeded with any further considerations under HRA.

## **4.6 CONCLUSIONS ON CHAPTER 4**

4.6.1 We have had regard to all the submissions made in the course of the Examination, and have identified in this Chapter the various issues which arose in submissions from local authorities and IPs from the outset of the Examination. We deal with the principal issues relating to the effects of the proposed development on the environment in Chapter 5. In assessing those issues, we have regard to the tests set out in the NPSNN and other relevant policy and statutory requirements.

## **5 IMPACTS OF THE PROPOSED DEVELOPMENT**

### **5.1 INTRODUCTION**

5.1.1 This Chapter addresses potential impacts of the proposed development which are raised in our own identification of issues and in submissions to the Examination:

- Policy background;
- Applicant's approach;
- Issues arising; and
- Summary and conclusions.

5.1.2 Matters relating to the overarching legal and policy context and the Panel's findings in relation to these matters are considered in Chapters 3 and 4 respectively, and will not be repeated in this Chapter.

### **5.2 TRAFFIC AND TRANSPORT**

5.2.1 This Section examines traffic and transport matters relating to the proposed development, including the motorway itself, the wider road network, non-motorised users, and public transport, all of which were raised in representations. The impact of the traffic forecasts on local road networks and on air quality are concerns of IPs, while some IPs argue that the proposed development should include better provision for cyclists and equestrians, and that mitigation for disrupted PRow should be enhanced (see later in this Section). In relation to public transport, there is a need to ensure that the joint needs of public transport and highways are met.

#### **POLICY BACKGROUND**

5.2.2 In the NPSNN Government policy and the need for the development of the national networks are summarised in Section 2. The need is stated to be *"to improve the national networks to address road congestion and crowding on the railways to provide safe, expeditious and resilient networks that better support social and economic activity"*. The purpose of the proposed development is to address these needs.

5.2.3 NPSNN paragraphs 2.21 to 2.27 consider options for addressing the identified need for national networks, including sustainable private and public transport modes, whilst recognising that it is not realistic for public transport, walking or cycling to represent a viable alternative to the private car for all journeys. Paragraphs 3.17, 3.22 and 4.31 respectively address the responsibility of developments to assist NMUs, severance issues and the mitigation of existing adverse impacts.

5.2.4 NPSNN paragraph 2.20 states that traffic forecasts are not a policy goal and do not in themselves generate a need for development, which arises from the pressures created by increases in traffic.

"Increased traffic without sufficient capacity will result in more congestion, greater delays and more unpredictable journeys". Paragraphs 5.201 et seq address impacts on transport networks.

- 5.2.5 NPSNN paragraph 5.147 specifies the relevant statutes affecting National Trails and PRow, while paragraphs 5.180, 5.184 and 5.185 address the issues of maintaining access to, and connectivity with, trails and PRow and providing adequate mitigation for any adverse effects.
- 5.2.6 NPSNN Annex A considers congestion on the SRN in terms of central, low and high growth forecasts, while Annex B considers road traffic forecasts and sets out the updated forecasts since earlier forecasts from 2013. We find that the Applicant has followed the approach of low, central and high growth forecasts, as also specified in DfT's Traffic Analysis Guidance<sup>32</sup> (TAG or WebTAG). See below for a summary of the impact of the proposed development.
- 5.2.7 The modelling of traffic forecasts for the proposed development underpins the assessments of the environmental effects. Any uncertainties within the modelling would be likely to feed through into the environmental assessments, and could undermine the reliability of those assessments. In accordance with NPSNN paragraph 5.11, we are particularly concerned about the potential for uncertainty in the assessment of air quality effects in view of the AQMAs through which the proposed development passes. There are issues in respect of the ability of these areas to comply with EU air quality objectives (see Section 5.7 of this report). Our concern relates to the potential for the proposed development to increase levels of traffic pollutants which could in turn have impacts on the health of local populations.
- 5.2.8 The main focus in the Examination in relation to traffic forecasting therefore relates to the reliability of those forecasts for the air quality assessment. Since the traffic forecasts provide the base for the assessment of environmental effects of the proposed development, we undertook a detailed interrogation of the traffic forecasting work that had been carried out in order to assess the reliability of the results.
- 5.2.9 Other impacts of concern which are addressed in this Section relate to the effects on local road networks, during both the construction of the proposed development and its operation, NMU, and public transport. We consider matters of road safety and the noise environment, which are related to traffic matters, elsewhere in this Chapter.

## **APPLICANT'S APPROACH**

- 5.2.10 The Applicant's approach to traffic and transport is described in the ES Chapter 13: *Effects on all travellers* [APP-153] as stipulated within the

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<sup>32</sup> <https://www.gov.uk/guidance/transport-analysis-guidance-webtag>

DMRB, Volume 11<sup>33</sup>. The Applicant presents its methodology, and identifies design, mitigation and enhancement measures, including monitoring requirements. It assesses residual effects upon travellers together with the net effects of the proposed development on vehicle travellers in the design year (2037).

- 5.2.11 The Applicant summarises the impact on all travellers in Table 13.30 [APP-153]. During construction, the impact on M4 road users, local road users, pedestrians, cyclists and equestrians of temporary closure of overbridges and underbridges and speed and flow reductions associated with a 50 mph speed limit is assessed as slightly adverse/beneficial. During operation, the permanent impact with the proposed development in place is assessed as beneficial. We assess this in the next sub-section.
- 5.2.12 Traffic forecasting is described in the Traffic Forecasting Report [REP1-003.6]. The overall conclusion is that delivery of the proposed development would increase traffic flows along the M4, under the core growth scenario in the design year of 2037, by up to 1,900 vehicles per hour in one direction (some 24% of the relevant do-minimum flow) in the peak periods, and up to 1000 vehicles per hour in one direction (some 17% of the relevant do-minimum<sup>34</sup> flow) in the inter-peak period. The corresponding increases in the opening year of 2022, under the core growth scenario, would be up to 1500 vehicles per hour in one direction (some 20% of the do-minimum flow) in the peak periods, and up to 500 vehicles per hour in one direction (some 9% of the do-minimum flow) in the inter-peak period. These figures indicate that the proposed development would therefore meet the Government's NPSNN objectives of increased capacity, improved traffic flow and reduced journey times.
- 5.2.13 A suite of transport models, including a Variable Demand Model and a Highway Assignment Model developed for the M3 and M4 (M3M4DM and M3M4HAM respectively), were built, calibrated and validated, in accordance with the evolving TAG, between 2009 and 2013 and used for the appraisal of the proposed development.
- 5.2.14 A Local Model Validation Report (LMVR) [REP1-003.12] was approved by Highways England's Traffic Appraisal Modelling and Economics (TAME).
- 5.2.15 The Panel finds that the approach and techniques used in the modelling are appropriate for the proposed development, since they are the latest evolution of techniques that the DfT has been developing for some years through its TAG. However, there are some issues with the forecasting which are discussed below.

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<sup>33</sup> <http://www.standardsforhighways.co.uk/DMRB/vol11/index.htm>

<sup>34</sup> "Do-minimum" represents the worst case for traffic conditions set out in WebTAG, and assumes the scheme will not be built [APP-153]

## **ISSUES ARISING**

5.2.16 The key issues are:

- impact of the traffic forecasts on air quality and local road networks;
- impact on non-motorised users - pedestrians, cyclists and equestrians; and
- relationship with public transport.

### **Impact of the traffic forecasts on local road networks and air quality**

5.2.17 We sought to explore the extent and nature of the uncertainties in the traffic modelling and forecasting, due to its impact on the local road network, air quality and potentially the health of the population resident within the AQMAs in particular. A number of Councils raise these issues, including BCC [REP7-187], LBHill [REP7-188] and SBC [REP7-175]. Campaign groups Friends of the Earth (FoE) [REP7-186, REP7-189] and Campaign for Better Transport (CBT) [REP7-176] also make similar points, as do some residents (see later).

5.2.18 At the second round of ISHs on the environment in February 2016 [EV-009] we carried out a scrutiny of the traffic forecasting process. The issues on which we focussed were:

- independent assessment of the traffic modelling;
- extent and nature of uncertainties in the forecasting;
- impact on forecast emissions; and
- impacts on local road networks.

5.2.19 We set out the position on each of these matters below.

### ***Independent assessment of traffic modelling***

5.2.20 Independently of the project team, HE's TAME Appraisal Certifying Officer (ACO) did a review of the LMVR [REP1-003-12] for the M3M4 Model [REP7-011] in September 2013. We understand that an independent review was also carried out by DfT but this was not made available to the Examination.

5.2.21 Whilst commending the modelling in some areas, the TAME ACO's review identified a number of weaknesses:

- some data were older than the recommended six year cut-off;
- the basis for heavy goods vehicle (HGV) flows was compromised by the application of a correction factor of 2.0 to the base year matrices;
- the speed flow curves in the model used a factor of 2.0 to convert vehicles into passenger car units, while TAG stated that a factor of 2.5 should be used. This would increase link capacities by 5%;

- regression statistics comparing prior and post matrix estimation matrices were variable, some good and some poor;
- the independent validation of the model was poor; and,
- the performance of the model in AQMAs was variable, and the robustness of air quality assessments might be compromised by the modelled speeds being higher than observed between links.

5.2.22 The TAME ACO summarised her review by stating: "*Whilst this model has made use of the latest version of WebTAG guidance, it cannot be said to be WebTAG compliant for the reasons outlined above. If it is used for forecasting and economic appraisal, the weaknesses noted above should be considered when using the outputs of those exercises*". The matters raised by the TAME ACO added to our concerns in relation to the reliability of the traffic forecasting model as the basis for the environmental forecasts, in particular air quality.

5.2.23 In response to the TAME ACO's review, the Applicant states [REP7-008] that the risks highlighted by the ACO fall into two broad categories – traffic flows and speeds - and that these were addressed by way of an additional validation check against 2013 traffic data (for the traffic flows), and post-processing using the speed banding methodology which has subsequently been published in IAN 185/15<sup>35</sup> (with regard to air quality modelling).

5.2.24 In view of the importance of the traffic forecasting to the assessment of environmental effects, we put the Applicant's position to the test in order to examine the modelling process that is set out in the LMVR [REP1-003.12]. In the process of interrogating the evidence we identified a number of examples of uncertainty in the modelling.

### ***Extent and nature of uncertainties in the forecasting***

5.2.25 The fact that there are uncertainties in the traffic forecasting process is not in dispute. DfT's TAG unit M4 *Forecasting and Uncertainty* (November 2014) is devoted to this subject. The Applicant addresses the uncertainties at Deadline VII [REP7-039, REP7-040, REP7-034, and REP7-035]. We now assess the uncertainties under the following headings:

- overall confidence levels in the traffic forecasting;
- base data derivation;
- model build and validation; and,
- summary of traffic forecasting uncertainties

### ***Overall confidence levels in the traffic forecasting***

5.2.26 As an overall indicator for the level of confidence in the core forecast level of demand, the Applicant states that in 2022 the core demand could potentially vary by  $\pm 4\%$  [REP7-040], these variations being the

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<sup>35</sup> <http://www.standardsforhighways.co.uk/ians/pdfs/ian185.pdf>

high and low growth scenarios recommended in the TAG. The  $\pm 4\%$  is a weighted average across the length of the proposed development, and therefore would be expected to be higher or lower within the various links along the proposed development.

- 5.2.27 The Applicant also states that "*traffic forecasts are based on a number of variables, many of which are inter-dependent and each of which is subject to assumptions and uncertainty*" [REP7-040]. The Panel agrees with this statement, which adds weight to our concerns regarding the reliability of the forecasts as a basis for the air quality assessment.

#### *Base Data Derivation*

- 5.2.28 The first area of uncertainty is the sources of data used for the traffic forecasting model, the years from which the various sources are derived, and the resultant potential for inaccuracies within the model.
- 5.2.29 The LMVR [REP1-003.12, Section 2.6] states that most of the data are from the model base year of 2009, with road side interview data collected by Mouchel from 2009/10, base data from Trafficmaster from the academic years 2008-2009 and 2009-2010, data from the M25 model from 2001, and London Area Traffic Surveys (LATS) data also from 2001.
- 5.2.30 Potential sources of inaccuracy in the base data include the extrapolation of data from source years to the base year using various assumptions. The Applicant [REP7-040] quotes an example from the DMRB, Volume 12<sup>36</sup>, Section 1, Part 1, Chapter 10: *The Assessment of Errors in the Base Year* which indicates an overall 95% confidence level for the estimate of  $\pm 25\%$  between modelled data and traffic count data over just one year. It seems evident to the Panel that the potential error in extrapolating data more than one year older than the base year (for example from 2001 to 2009) could be significant, and that this was another potential source of inaccuracy.
- 5.2.31 A further source of inaccuracy is the use of Trafficmaster data (see also below), as is the practice of representing all heavy goods vehicles (HGVs) based on UK-only vehicles and multiplying by a factor of 2, which does not accord with WebTAG guidance and which we consider would add to unreliability in the modelling.

#### *Model build and validation*

- 5.2.32 The matrix build process is the stage at which the various sources of data are combined into a prior or initial matrix [REP1-003.12, Section 5.8]. Potential sources of inaccuracy include the practice of carrying out road side inspections in one direction only and inferring the data for the opposite direction, and using data older than the six years specified in guidance (TAG 3.19 paragraph 8.1.1), for example LATS

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<sup>36</sup> <http://www.standardsforhighways.co.uk/ha/standards/DMRB/vol12/index.htm>

data from 2001. Furthermore the Trafficmaster data set represents only a sample of the overall population (i.e. only those drivers whose vehicles had the Trafficmaster technology on board), and light goods vehicles are grouped with cars, instead of modelling them as an individual vehicle class.

- 5.2.33 The next stage in the modelling process is the calibration and validation of the model leading to the assignment model. The objective after this third stage of the modelling process is to achieve convergence between modelled and observed data.
- 5.2.34 After this stage, the Applicant [REP1-003.12, Section 8.4] states that the recommended guidance is to achieve 85% of links with a GEH (Geoffrey E. Havers) statistic (a measure of fit between modelled and observed data) of less than 5. The Applicant presents tables which purport to show that this has been achieved apart from the AM2 time period (AM Peak 2; 08:00-09:00), where the percentage is 84%, which the Applicant considers to be acceptable.

*Summary of Traffic Forecasting Uncertainties*

- 5.2.35 Although the Applicant argues that it has been scrupulous in following the relevant guidance, and the Panel does not disagree, it is clear to us that there are inevitably the following uncertainties in the traffic forecasting and modelling, all as stated by the Applicant [REP7-039, REP7-040]:
- (a) overall level of confidence in the core forecast level of demand -  $\pm 4\%$ , a weighted average across the length of the proposed development which would therefore be expected to be higher or lower in various links along the proposed development;
  - (b) age of the various data sources relative to the base modelling year and the factoring process used to adjust the data sources to the base year -  $\pm 25\%$  between modelled data and traffic count data over one year and probably more over the 8-year period from 2001 to 2009;
  - (c) the processes for developing the traffic assignment model from the prior matrix model and infilling the model matrices for missing data, and the sample sizes used to capture data in the road side interviews - uncertainties not known;
  - (d) day-to-day variation in flow -  $\pm 3\%$  for Monday-to-Thursday flows in a neutral month;
  - (e) mechanical/human counter error -  $\pm 10\%$  for manual traffic counts and  $\pm 5\%$  for automated traffic counts;
  - (f) the assumption of reversibility - 10% for the assumption that reverse direction flow is the same as that for the measured direction; and
  - (g) flows and speeds on particular links along the proposed development, compared with overall model -  $\pm 15\%$  between modelled and observed flows on 85% of the links.



- 5.2.36 The local authorities and other IPs did not produce detailed evidence on the strategic traffic forecasting. The local authorities were prepared to accept the basis for the traffic forecasting, challenging instead the impact of the forecasting. The Panel heard assertions concerning the unreliability of traffic forecasting from some IPs such as FoE, Reading FoE and CBT [REP7-186, REP7-189, REP7-176]. FoE and CBT both quote examples of where traffic volumes have increased in excess of forecasts when schemes open, but the Applicant states that induced traffic has been fully accommodated in the traffic modelling [REP8-022, REP8-029, REP8-019].
- 5.2.37 From the forgoing analysis, it is evident to the Panel that there are a number of sources of uncertainty in the traffic forecasting, which is relevant in view of the implications for the environmental assessments which use the traffic forecasts as a base. In particular, any lack of certainty is relevant to the interface between the traffic models and air quality models, which is the subject of the next sub-section.

### ***Impact on Forecast Emissions***

- 5.2.38 As stated earlier, we have concerns about the potential for inaccuracy in air quality forecasts, which in turn compound from the inaccuracies within the traffic forecasting. LBHill [REP7-188], SBC [REP7-175, REP7-184] and BCC [REP7-180] all raise the issue of uncertainties in relation to air quality, and the relationship with traffic forecasting.
- 5.2.39 The Applicant states [REP7-040] that the accuracy of the local air quality assessment is determined by:
- the accuracy of the input traffic forecasts (together with their associated uncertainty);
  - the accuracy of data capture from monitoring stations (with associated uncertainty due to the variability of meteorological and external source influences);
  - the accuracy of national forecasts for the various variables input to the trend assumptions; and
  - the accuracy of the Applicant's assumptions about the scale of adjustment required to the long-term trend profile.
- 5.2.40 The Applicant addresses the issues relating to interfacing traffic models and air quality models by means of a sensitivity test which uses the methodology set out in IAN 185/15<sup>37</sup>. We also refer to this IAN in our consideration of air quality (Section 5.7). IAN 185/15 was published in January 2015, after the application was submitted, and the sensitivity test was undertaken during the Examination but not submitted to the Examination.

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<sup>37</sup> <http://www.standardsforhighways.co.uk/ians/pdfs/ian185.pdf>

- 5.2.41 According to the Applicant [REP7-040], this subsequent assessment demonstrates the robustness of the assessment presented in the ES based on the traffic model outputs and addresses the concerns over the accuracy of the base model validation in respect of its ability to model within the AQMAs. However, since the assessment was not submitted to the Examination, we are unable to give it weight.
- 5.2.42 We accept that the Applicant has carried out its traffic modelling in accordance with published guidance and has used the most reliable and available data. It has also sought to minimise the difficulties in the interface between the strategic traffic forecast modelling and air quality modelling through the use of techniques now published in IAN 185/15. However, we remain of the view that there are likely to be inbuilt uncertainties in the traffic forecasting model.

### ***Impacts on Local Road Networks***

- 5.2.43 The effects of the proposed development on local road networks both during the construction and the operation of the proposed development are matters raised by a number of local authorities, including BCC [REP7-180], SBDC [REP7-185], LBHill [REP7-188], RBWM [REP8-124] and SBC [REP7-175]. There are few submissions on this matter from other IPs (see later).
- 5.2.44 The main concerns are:
- construction impacts - the effect on already congested roads during construction due to diversion of traffic from the M4, the closure of bridges and traffic accessing the CCs;
  - operational impacts - the ongoing effect of the proposed development on local roads once the proposed development is operational; and
  - access to Cranford Park, Hillingdon.

#### *Construction impacts*

- 5.2.45 BCC [REP7-180] and SBDC [REP7-185] are concerned about increases in traffic flows on junctions on the A412, A355 and A4 during construction in 2020, routing to/from the bridge sites and CCs, and cumulative effects. In the Councils' view, the outline CTMP [APP-298] was not strong enough to provide the necessary mitigation.
- 5.2.46 Construction traffic routing at compounds/bridge sites is included within the latest version of the CTMP [REP8-010] and the Applicant agrees [REP8-003] to undertake traffic surveys at the junctions listed by BCC in recognition of the potential for traffic flows through these junctions to increase during construction of the proposed development in 2020. Cumulative effects are addressed [REP5-005] and paragraph 13.5.2 of the CEMP [REP9-002] deals with the interaction and mitigation of effects of traffic from the combination of concurrent construction from any other major developments such as HS2 and HEx.

- 5.2.47 BCC welcomes the inclusion of proposed construction routes to/from the CCs, and agrees in principle to the proposed Traffic Management Working Group (TMWG), to be established according to Section 7.2.5 of the CTMP [REP8-010], but there remain some concerns by BCC and SBDC concerning mitigation for the effect of traffic on local roads during construction in 2020.
- 5.2.48 However, we find that these matters are capable of being addressed through the CTMP. This is secured through DCO Requirement 18, *Construction traffic management*, which must be approved by the SoS following consultation with the relevant planning authorities. As a result BCC and SBDC would be in a position to influence the measures to be taken through the CTMP.
- 5.2.49 LBHill [REP7-188] has similar concerns regarding the impact of the proposed development on local road networks. The Applicant confirms [REP8-026] that it would undertake verification traffic surveys on roads that are of concern to LBHill, and would prepare an indicative scope of works to discuss with LBHill, to be secured through the CTMP. By the close of the Examination, LBHill [REP9-045] was not able to respond to the Applicant's scoping study and the Council is concerned that its issues remain unresolved.
- 5.2.50 Nevertheless, for the reasons given in response to the issues raised by BCC and SBDC, we find that issues relating to construction traffic impacts in LBHill are matters which may be resolved through the CTMP.
- 5.2.51 SBC is concerned about both construction and operational effects of the proposed development on local road networks [REP7-184]. From its assessment of traffic flow data from the Applicant [REP6-05, 07 and 08] these concerns focus on the impact on the A4, A355 and A412 in and close to Slough during the construction phases (2017, 2020), at opening (2022) and at design year (2037). SBC lists [REP9-046] what it considers to be critical junctions in Slough (on the A355, A4 and A412) which it considers should be referenced in a traffic modelling and mitigation DCO requirement. We deal with the operational impacts in SBC and the issue of a potential requirement below.
- 5.2.52 During the construction phases, SBC's assessment highlights a number of specific locations where the Applicant's forecasts indicate traffic increases of between 4% and 13% on the A4, A355 and A412. SBC states that these increases are of concern to the Council in the light of the existing congested local road network, particularly the likely impact on local junctions along the A355 and A412.
- 5.2.53 As with BCC and LBHill, the Applicant [REP8-033] confirms that where appropriate it would undertake verification traffic surveys at relevant locations on these routes, as provided in Section 7.1 of the CTMP. SBC agrees to make relevant traffic data of its own available to the Applicant [REP9-046]. In view of the provisions made in the CTMP, we are satisfied that SBC's concerns would be addressed.

- 5.2.54 RBWM [REP8-124] sets out a list of roads which the Council considers should be subject to traffic modelling and mitigation by the Applicant. The forecasts from the M4 traffic model on the main corridors of concern to RBWM for the opening year 2022 have been reviewed by the Applicant [REP9-020] for the opening year 2022. The results show daily flow decreases of between 1% and 4% on the A308, the A4 and the A404, and increases of between 2% and 5% on the A332 and A404(M). In view of the provisions made in the CTMP, we are satisfied that RBWM's concerns would be addressed.
- 5.2.55 The University of Reading [REP2-033] expresses its concern about the impact of the proposed development on the wider road network including the A327, driver stress levels, general traffic growth, and the performance of Junction 11 of the M4 Motorway.
- 5.2.56 The Applicant [REP3-023.43] addresses these concerns by detailing how it has assessed the impact on the wider road network in the vicinity of the University, and stating its approach to driver stress, from which it is satisfied that the proposed development would have no impact on the assessed level of driver stress on the A327. The Applicant also states that the proposed development would not result in any material change in the performance of Junction 11 of the M4 Motorway, so no additional junction assessments were undertaken.
- 5.2.57 In an additional submission on 29 December 2015 [AS-030], the University states that it continues to support the proposed development and agrees with its strategic aims as set out in the Statement of Reasons [REP5-007.3]. The University acknowledges the Applicant's Deadline III response [REP3-023.43] with regard to how the strategic aims would be met, as well as the impacts of the proposed development on the wider road network, driver stress and the performance of Junction 11 of the M4.
- 5.2.58 The University raises no further issues, and we are satisfied that all issues raised by the University have been addressed. This applies to both the construction and operational phase.

*Operational impacts*

- 5.2.59 SBC's assessment of the Applicant's data for the operational phase shows increases in traffic of 4% to 12% on the local road network at a number of locations [REP7-184]. The Council states that these increases are of concern in the light of the existing congested local road network.
- 5.2.60 Mr Green [REP8-127], an IP, also maintains his concerns about the underestimation of future traffic and the inability of feeder roads and junctions to handle even the low forecast of traffic.
- 5.2.61 According to the Applicant [REP9-020], the changes in traffic flows reflect a modest degree of re-assignment on to the roads that directly link to the M4 with some consequent decreases on other routes, but these changes do not constitute a material impact. Accordingly no

further assessment or mitigation is required, and the traffic assessment does not indicate any increase requiring junction improvements as part of delivering the proposed development.

- 5.2.62 Whilst we acknowledge the issues in relation to the reliability of the traffic forecasts, there is no evidence to demonstrate a significant underestimation in future traffic flows on the local road network.

*Access to Cranford Park, Hillingdon*

- 5.2.63 In its LIR, LBHill [REP2-060.1] calls for access improvements to Cranford Park for all modes of transport on the grounds that the park is currently very difficult to access by any mode of transport and that the proposed development would further detract from the park qualities and visitor attraction.
- 5.2.64 The Applicant [REP3-017.1] rejects the statement that the proposed development would further detract from the park, and that improving access to Cranford Park is outside the statutory purposes of HE, which is not the local highway authority. Furthermore, improvement of access is not required since it is not mitigation for an adverse effect, and should not form part of the proposed development as this would require works outside the Order limits [APP-186]. Turning flows at Junction 3 are predicted to increase slightly (around 2%) and the flow past the access to Cranford Park is forecast to increase by around 2.5%. The proposed development would not materially affect access to Cranford Park, so no mitigation is required.
- 5.2.65 We agree with the position of the Applicant in this respect. The works proposed by LBHill for access to Cranford Park fall outside of the Order limits and outside of the statutory purposes of HE.

*Draft DCO Requirement for Traffic Monitoring and Mitigation*

- 5.2.66 Throughout the Examination the Applicant and local authorities did not reach agreement with regard to mechanisms for handling local traffic management. Furthermore, the local authorities did not believe that the Applicant's proposed mitigation through the CTMP was sufficient to deal with construction traffic. We therefore tabled a draft of a potential DCO requirement to deal with traffic monitoring and mitigation [PD-012].
- 5.2.67 The requirement was supported, with some modification, by a number of local authorities - BCC [REP8-118], RBWM [REP8-124], LBHill [REP8-122] and SBC [REP8-125, REP9-046]. The Applicant's response [REP8-013] is that there is no need for such a requirement since provision is already made within the CTMP.
- 5.2.68 We find that there is merit in the Applicant's view that there are already proposals contained in the CTMP that would provide for the management and mitigation contained in our proposed draft requirement, which mean that the requirement would not be necessary.

- 5.2.69 The final version of the CTMP [REP8-010] is a significant enhancement on the version tabled with the application [APP-298] which was little more than a template. The CTMP is secured through DCO Requirement 18, *Construction traffic management*. The CTMP would be subject to the approval of the SoS following consultation with the relevant local authorities, thus providing the relevant Councils with the opportunity to further influence the provisions within the document.
- 5.2.70 Furthermore as noted above, the CTMP establishes a TMWG, which would include representatives from local authorities, emergency services, traffic officers, local network managers, statutory undertakers, other developers, and the contractor's specialist traffic management contractors. The CTMP commits the contractor to consult with the TMWG regarding traffic management issues, and the TMWG to agree a dispute resolution procedure. In these circumstances we consider that adequate protection would be secured to ensure that construction traffic impacts are effectively mitigated.
- 5.2.71 With regard to any impacts on the local road networks during the operation of the proposed development, NPSNN paragraph 5.215 states that mitigation measures should be proportionate and reasonable. Clearly there would be some effect on local roads as a result of the operation of the proposed development. However, we find that with the additional capacity provided by the proposed development, local authority highway networks would be likely to benefit from the implementation of the proposed development. In these circumstances it would not be reasonable to expect HE to compensate neighbouring local authorities for any impact on their networks as a result of changes in traffic flows and re-assignment. As a result we find that a traffic monitoring and mitigation requirement as put forward by the Panel would not be justified.

### **Impact on non-motorised users - pedestrians, cyclists and equestrians**

#### ***Effects on non-motorised users***

- 5.2.72 NMUs, although not permitted to use motorways, may be affected by the proposed development when travelling on the local highway network and PRow surrounding or interacting with the proposed development as shown on the Environmental Masterplan [APP-097 to APP-101, REP8-087 to REP8-117]. These PRow comprise footpaths and bridleways, a number of which cross the M4.
- 5.2.73 According to the Engineering and Design Report [APP-096], there are approximately 113 structures within the scope of the proposed development. These include overbridges, underbridges, pedestrian only underpasses, subways and culverts which carry vehicles and/or NMUs across the M4. Not all of these structures would be altered or otherwise affected, such that their use by NMUs requires assessment.

- 5.2.74 According to Chapter 13: *Effects on all travellers* of the ES [APP-153], the majority of users of PRow are assumed to be low sensitivity due to their local scale. The main exceptions concern the Thames Path, National Cycle Network Route 4 (NCN4) and Route 61 (NCN61), each of which has national significance and accordingly is rated as high sensitivity.
- 5.2.75 The sensitivity of road crossing points which are not definitive PRow is considered to be low in respect of change, given their local scale and the fact that the proposed development is not changing significantly from do-minimum to do-something, i.e. the M4 already exists and crossings will be maintained.
- 5.2.76 In their LIRs, LBHill [REP2-060.1 to REP2-060.30], BCC and SBDC [REP2-050] and RBWM [REP2-030] raise concerns about the effects on footpaths and PRows during construction of the proposed development.
- 5.2.77 The main effects for NMUs concern the closure of four bridges for online replacement, and the temporary disruption of pedestrian access during construction works at Sipson subway which would affect access to the Cherry Lane Primary School. The four bridges are at Marsh Lane, Oldway Lane, Recreation Ground and Old Slade Lane. The severance would be of a short-term duration, between 9 and 12 months, and there would be no permanent severance as a result of the proposed development.
- 5.2.78 The Applicant's proposed mitigation [REP3-017.1, REP3-017.7] for temporary impacts due to construction on rights of way would be addressed in the CEMP [APP-293, REP9-002], which would require the contractor to liaise with local authorities and others regarding the proposed traffic management procedures along the length of the proposed development, and to provide alternative routes for NMUs within the traffic management scheme.
- 5.2.79 Diversion works would be confirmed in consultation with the relevant local authority and consent applied for under s257 of the Town and Country Planning Act 1990. Specific mitigation measures are included at paragraph 5.3 of the CEMP for the Sipson Road subway and the Cherry Lane Primary School.
- 5.2.80 BCC [REP7-180] and SBDC [REP7-185] are seeking mitigation for walkers, cyclists and equestrians unable to access the PRow network towards Colnbrook for a period of 12 months due to the closure of the Old Slade Lane overbridge and the severance of the Colne Valley Way.
- 5.2.81 BCC and SBDC regard the Applicant's proposed alternative route as unrealistic due to the significant (over 7km) extra distance and unpleasant surroundings (noise and exhaust fumes). The costed mitigation package suggested to the Applicant by BCC, involving surfacing and signage of the existing paths onto which the additional users would be diverted, is not accepted by the Applicant [REP8-003].

The Applicant considers that the diversion route to the south of the M4 proposed in the ES [APP-153] is the most appropriate available route, but would be pleased to discuss with the Councils any alternative routes which they consider to be more suitable. This may be carried out through the provisions of the CEMP.

- 5.2.82 We accept that where bridges are closed, the alternative routes proposed by the Applicant may disadvantage some users, in particular the NMUs. However, the diversions would be temporary, and would be a necessary inconvenience resulting from the proposed development. We consider that the mitigation measures in the CEMP [REP9-002], secured by DCO Requirement 8, would ensure that alternative routes are put in place for all affected rights of way in order to minimise the inconvenience which might be caused.
- 5.2.83 CBT [REP3-025, REP4-031] raises issues regarding positive benefits for NMUs and the mitigation of existing adverse impacts, including the introduction of cycle lanes over bridges or in underpasses and enhanced safety measures for NMUs. The Applicant [REP4-031, REP5-003.4] cites enhancements for NMUs that would be provided at a number of locations (Wood Lane, Datchet Road, Monkey Island Lane, Recreation Ground and Old Slade Lane).
- 5.2.84 We find that the Applicant has adopted a reasonable and proportionate approach to NMUs in meeting the requirements of NPSNN, in particular paragraphs 3.17, 3.22 and 4.31.

### **Relationship with public transport**

- 5.2.85 NPSNN Section 2 sets out Government policy with regard to the need for national networks, both road and rail. It envisages networks with the capacity, connectivity and resilience to support national and local economic activity, facilitate growth and create jobs; networks which support and improve journey quality, reliability and safety; networks which support the delivery of environmental goals and the move to a low carbon economy; networks which join up our communities and link effectively to each other.
- 5.2.86 Within the overall policy framework, NPSNN paragraph 2.23 identifies the policy with regard to smart motorways, to increase capacity and improve performance. The proposed development addresses the policy objectives.
- 5.2.87 The Applicant's traffic forecasting takes account of public transport developments [REP7-040], and in particular the implementation of Crossrail, which would follow a similar east-west route to the proposed development.
- 5.2.88 The engineering firm AECOM was selected to provide the demand model element for the transport model since it had an existing tried and tested model (developed for the East of England) that was capable of adaptation for the model needed to represent the M3/M4 study area. The model uses a proprietary transport planning software



package that is able to allocate demand to travel between available modes of transport, in the case of the M3/M4 model between the public transport and highway modes.

- 5.2.89 The rail demand was obtained by AECOM from Network Rail's PLANET suite of models, while the bus demand was developed by AECOM from the national trip end model [REP7-040]. Crossrail was included in the modelling process, with an assumed opening year of 2019.
- 5.2.90 We find that public transport has been taken into account within the traffic forecasting modelling in an appropriate manner.

## **SUMMARY AND CONCLUSIONS**

- 5.2.91 We find that the Applicant has applied an appropriate and recognised methodology to traffic forecasting in accordance with the advice set out in the DRMB, and the LMVR is approved by TAME. As a result, it has achieved a reasonable assessment of future traffic flows at the strategic level to enable an assessment of the additional capacity that would be provided by the proposed development and its likely benefits.
- 5.2.92 By providing for increased capacity on the M4 between Junctions 3 and 12, the proposed development would improve traffic flow, and reduce journey times in accordance with Section 2 of the NPSNN which seeks to address road congestion and to provide a national network which better supports social and economic activity.
- 5.2.93 For the reasons which we set out above, we find that there are likely to be inbuilt uncertainties in the traffic forecasting model. Since the environmental assessment depends upon the traffic forecasts, there is scope for any unreliability in the base traffic forecasting to feed through into the environmental assessments. For the reasons given in Section 5.7 of this report, we find the implications for the air quality assessment to be of particular concern as these are subject to formal limits to which the SoS must have regard in making his decision on the proposed development. This is considered further in the Section on air quality, Section 5.7.
- 5.2.94 We took note of the concerns of the local authorities in relation to impact on the local road networks during construction. We tabled a draft DCO requirement to deal with traffic monitoring and mitigation. However, we find that adequate protection would be secured through the CTMP developed during the Examination to ensure that construction traffic impacts are effectively mitigated in accordance with NPSNN paragraphs 4.28 to 4.35. A traffic monitoring and mitigation requirement would not therefore be justified.
- 5.2.95 In relation to the impacts of the proposed development on local road networks during operation, we find that, with the additional capacity provided by the proposed development, local authority highway networks would be likely to benefit from the implementation of the

proposed development. In these circumstances, it would not be reasonable to expect HE to compensate neighbouring local authorities for any impact on their networks as a result of changes in traffic flows and re-assignment. As a result we find that a traffic monitoring and mitigation requirement would not be justified.

5.2.96 The works proposed for an enhanced access to Cranford Park fall outside of the Order limits and outside of the statutory purposes of HE and are not therefore included in the recommended DCO.

5.2.97 We find that there would be no permanent severance of PRow as a result of the proposed development, and that severance during construction would be mitigated in a reasonable and proportionate manner, in accordance with NPSNN Paragraphs 3.17, 3.22, and 4.28 to 4.35.

5.2.98 Public transport has been taken into account within the traffic forecasting and modelling in an appropriate manner, reflecting the joint roles of public transport and highways in meeting the national network needs as stated in NPSNN Section 2.21 to 2.27.

## **5.3 ROAD SAFETY**

### **POLICY BACKGROUND**

5.3.1 The NPSNN addresses road safety in paragraphs 4.60 to 4.66.

5.3.2 It states that: "*New highways developments provide an opportunity to make significant safety improvements. Some developments may have safety as a key objective, but even where safety is not the main driver of a development the opportunity should be taken to improve safety, including introducing the most modern and effective safety measures where proportionate*".

5.3.3 The NPSNN goes on to state that an objective assessment of the impact of a proposed development on safety, including the impact of any mitigation measures, must be carried out. Arrangements for undertaking a road safety audit process, a mandatory requirement for all trunk road highway improvement schemes in the UK (including motorways), must also be put in place. These are intended to ensure that operational road safety experience is applied during the design and construction process so that the number and severity of collisions is as low as is reasonably practicable.

5.3.4 The SoS will wish to be satisfied that all reasonable steps have been, and will be, taken to:

- minimise the risk of road casualties arising from the proposed development; and
- contribute to an overall improvement in the safety of the Strategic Road Network.

## **APPLICANT'S APPROACH**

### **Approach to Safety for Smart Motorways**

- 5.3.5 The Applicant addresses safety in Chapter 10 of the Engineering Design Report (EDR) [APP-096] and in ES Chapter 13: *Effects on all travellers* [APP-153].
- 5.3.6 The Applicant states that the SRN currently has high performance in terms of safety and it is an objective of the proposed development to maintain that high standard. During the pre-application phase, the design of the proposed development was the subject of a Road Safety Audit and an assessment of operational safety by a team from URS Infrastructure and Environment UK Limited.

### **Road Safety Audit**

- 5.3.7 The Road Safety Audit is set out at Annex C [APP-108] to the EDR [APP-096]. The terms of reference of the audit are stated to be as described in the DMRB document HD 19/03 *Road Safety Audit*. The advice issued in the DMRB applies to trunk road and motorway highway improvement schemes.
- 5.3.8 The audit team states that it has reviewed the Departures from Standards Checklist and could confirm that, from the details provided, there were no issues that were considered to be detrimental to the safety of road users.
- 5.3.9 A number of problem areas are identified under the headings: General, Local Alignment, Junctions, Non-motorised User Provision, and Road Signs Markings and Lighting in this audit. Recommendations are made for remedying these problem areas.
- 5.3.10 The leader of the audit team certified on 7 January 2015 that the audit had been carried out in accordance with the Road Safety Audit Standard (HD 19/03).
- 5.3.11 The Applicant's response to the audit is included at Annex D to the EDR [APP-112]. The Applicant agrees with most of the recommendations and intends to deal with them as part of the detailed design. There are four exceptions, for which the Applicant provides a reasoned argument for why the recommendation as articulated is not appropriate.
- 5.3.12 We are satisfied that the road safety audit was undertaken in accordance with recognised standards, and that the Applicant has provided a fitting response to the recommendations. No other parties challenged the findings of the road safety audit.

### **ISSUES ARISING**

- 5.3.13 The main issues raised in submissions to the Examination relate to:

- the safety of ALR having regard to the loss of a hard shoulder; and
- whether dynamic HSR would be safer and therefore of more value as an option.

***All lane running and dynamic hard shoulder running***

- 5.3.14 IPs, for example LBHill [REP7-188] and CBT [REP7-176], raise issues regarding the safety of ALR smart motorways.
- 5.3.15 The Applicant [REP7-018] states that it has provided written evidence [REP7-036] on the safety of smart motorway schemes to the Transport Select Committee (TSC). This evidence (in January 2016) contains a review of both the M25 J5-7 and M25 J23-27 ALR Schemes, which opened in early 2015.
- 5.3.16 In the evidence to the TSC, HE asserts that ALR smart motorways provide an additional 33% capacity on the SRN, with no reduction in safety, for 60% lower cost than traditional road widening.
- 5.3.17 Smart motorways have been operational since 1995 and were designed to ease congestion and improve traffic flow without compromising safety. ALR is the latest version of smart motorways, where extra capacity is added to routes by converting the hard shoulder to a traffic lane and using technology to provide a controlled, intuitive environment which encourages positive driver behaviour. The first ALR schemes were introduced on the M25 in 2014.
- 5.3.18 In February 2016, HE published interim reports based on the first 12 months of performance data for the M25 [REP6-015]. These reports indicate that the concept is working well, in line with expectations. Journey times and reliability have improved, especially in peak periods and there have been overall reductions in collision and casualty rates. By keeping traffic on the motorway or attracting traffic to it, more traffic is kept on the safest roads, meaning more road users are driving in a safer environment.
- 5.3.19 Driver behaviour continues to play a big part in the overall success of smart motorways and HE has planned a comprehensive driver awareness programme in 2016 to raise awareness of key issues such as compliance with red X signals.
- 5.3.20 Conclusive evidence of the performance of ALR would come with three years of safety data. However, the Applicant considers that evidence to date provides the confidence to proceed with the smart motorways programme.
- 5.3.21 HE accepts that there are concerns and lessons from these first schemes that would be incorporated into the future programme; however, it is important these are viewed in the context of the overall

high levels of safety which exist on the UK motorways (British Road Safety Statement<sup>38</sup>, December 2015).

- 5.3.22 We consider that the M25 monitoring output has provided support for the Applicant's position and the findings of the road safety audit in terms of the safe operation of the proposal for ALR on the M4.
- 5.3.23 The RAC [REP2-029] states its support for smart motorways, but questions the safety of ALR schemes in comparison with dynamic HSR schemes as in use on the M42, which it states show an improved safety record over the original motorway.
- 5.3.24 The Applicant acknowledges [REP4-002.2] that the smart motorway design for the M42 – an HSR scheme - would provide a greater reduction in risk (i.e. a greater level of safety) compared to the proposed development. However, the ALR concept was selected for the proposed development because HSR schemes are operationally more difficult and resource intensive than ALR schemes, with a higher maintenance burden. ALR schemes also offer improved journey time benefits with a more consistent driving environment, and are therefore the preferred operating regime to manage congestion on the SRN.
- 5.3.25 The Applicant states [REP4-002.2] that the level of safety benefit meets the proposed development's safety objective, as set out in Section 2.3 of the Hazard Log Report [APP-113]. It provides a safety benefit, with an 8% risk reduction when compared to the baseline configuration: the current motorway configuration including the motorway incident detection and automatic signalling (MIDAS) system.
- 5.3.26 The permanent conversion of the hard shoulder would maximise the use of the space available, remove the risks introduced by the part time use of the hard shoulder, and reduce the amount of information the road user has to assimilate from the overhead signs and signals. It would also remove the need for the complex and resource intensive operating systems to open and close the hard shoulder, and reduce the incumbent maintenance requirements.
- 5.3.27 As a further safety measure, the Applicant states [REP7-018] that the average spacing of emergency refuge areas (ERAs) in the proposed development would be 1850m compared with 2000m on the M25 J25-27 scheme, and the average spacing of information gantries would be 904m compared with 1004m on the M25.
- 5.3.28 We accept that in terms of the costs and benefits of ALR against HSR, there is a clear advantage in the adoption of the ALR option. Since the proposed development would meet the requirements of NPSNN

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<sup>38</sup> British Road Safety Statement  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/487704/british\\_road\\_safety\\_statement\\_print.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/487704/british_road_safety_statement_print.pdf)

paragraph 4.60 in so far as it would provide an opportunity to improve the safety of the existing motorway through the introduction of modern safety measures, we find no reason to support a change from ALR to HSR for the proposed development.

## **SUMMARY AND CONCLUSIONS**

- 5.3.29 Through the Road Safety Audit, together with the outcomes of the M25 monitoring output, we are satisfied that the proposed development of ALR for the M4 Junctions 12 to 3 would achieve a good level of safety. Indeed, the safety of ALR is assessed as being greater than that achieved under the existing conditions on this part of the M4. As a result we find that the proposed development would comply with Government policy in NPSNN paragraph 4.60.
- 5.3.30 Whilst there is some evidence that an HSR scheme may provide a higher level of safety, we accept that the aim of the proposed development is to increase road capacity through the most cost effective design. In view of the high level of safety which would be achieved, we have no reason to find that a change to an HSR scheme would be justified.

## **5.4 NOISE AND VIBRATION**

### **POLICY BACKGROUND**

- 5.4.1 The NPSNN addresses noise and vibration in paragraphs 5.186 to 5.200
- 5.4.2 It refers to Government policy as set out in the Noise Policy Statement for England<sup>39</sup> (NPSE), which promotes good health and good quality of life through effective management of noise and vibration. The NPSE refers to three thresholds of noise - No Observed Effect Level (NOEL), Lowest Observable Adverse Effect Level (LOAEL), and Significant Observed Adverse Effect Level (SOAEL).
- 5.4.3 The World Health Organisation's Night Noise Guidelines for Europe<sup>40</sup> define the LOAEL as 40 dB LAeq,8h (free field), necessary to protect the public including most of the vulnerable groups from the adverse health effects of night noise, but it is recognized in the guidelines that many people are exposed to noise levels above this value and the guidelines therefore recommend an interim target of 55 dB LAeq,8h (free field).
- 5.4.4 Factors that will determine the likely noise impact include:

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<sup>39</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/69533/pb13750-noise-policy.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69533/pb13750-noise-policy.pdf)

<sup>40</sup> [http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0017/43316/E92845.pdf](http://www.euro.who.int/__data/assets/pdf_file/0017/43316/E92845.pdf)

- construction noise and the inherent operational noise from the proposed development and its characteristics;
- the proximity of the proposed development to noise sensitive premises (including residential properties, schools and hospitals) and noise sensitive areas (including certain parks and open spaces);
- the proximity of the proposed development to quiet places and other areas that are particularly valued for their tranquillity, acoustic environment or landscape quality such as National Parks; and
- the proximity of the proposed development to designated sites where noise may have an adverse impact on the special features of interest, protected species or other wildlife.

5.4.5 With regard to decision making, due regard must be given to the relevant Sections of the NPSE, NPPF and the Government's associated planning guidance on noise.

5.4.6 In the NPSNN at paragraph 5.195 it states that the SoS should not grant development consent unless satisfied that the development proposal will meet the following aims, within the context of Government policy on sustainable development:

- avoid significant adverse impacts on health and quality of life from noise as a result of the new development;
- mitigate and minimise other adverse impacts on health and quality of life from noise from the new development; and
- contribute to improvements to health and quality of life through the effective management and control of noise, where possible.

5.4.7 The ExA and the SoS should also consider whether mitigation measures are needed both for operational and construction noise over and above any which may form part of the project application (NPSNN paragraph 5.197).

#### **APPLICANT'S APPROACH**

5.4.8 The assessment of the effects of the proposed development in terms of noise and vibration is set out in the ES Chapter 12: *Noise and Vibration* [APP-152]. This is supported by a number of appendices and figures [APP-253 to APP-276 and APP-347 to APP-351], which identify scenarios for the opening year (2022) and the design year (2037).

5.4.9 The noise assessment identifies measures to mitigate the noise effects of the proposed development. Low noise surfacing is to be used across all lanes of the proposed development, together with the renewal or replacement of existing noise barriers and the addition of new noise barriers.

5.4.10 The Applicant's assessment [REP8-014] demonstrates that the magnitude of impact for the proposed development would be minor beneficial in the short-term and negligible in the long-term. The significance of effect for the operation of the proposed development is

assessed as slight beneficial in the short-term and neutral in the long-term, with the vast majority of the proposed development corridor experiencing negligible or minor reductions in noise levels with the proposed development in operation [APP-152].

- 5.4.11 In addition to the mitigation set out in the ES, and in accordance with the advice in NPSNN paragraphs 3.2 and 5.195, the Applicant carried out a study of measures to provide enhanced noise mitigation. The final Enhanced Noise Mitigation Study (ENMS) [REP8-014] includes the provision of additional noise barriers and the replacement of some existing noise barriers with higher noise barriers [REP8-055 to REP8-086].
- 5.4.12 Through the Examination the Applicant has refined its Environmental Masterplan [REP8-087 to REP8-117], which is the plan to which the ENMS is tied and secured through Requirement 22, *Acoustic barriers*. This plan is supported by noise contours for the 600m study area either side of the M4, for noise  $\geq 55\text{dB LAeq,8h}$  [REP8-039 to REP8-054], plans showing existing/replacement/ additional noise barriers [REP8-055 to REP8-070], and plans showing the enhanced mitigation noise levels for the do-something minus do-minimum circumstances in 2022, colour coded between  $< -6\text{db}$  and  $> +3\text{ db}$  [REP8-071 to 086].
- 5.4.13 According to the Applicant, the entire study area is above the daytime and night-time LOAEL, so the enhanced noise mitigation focusses on those residential areas which would experience noise levels equal to or above the daytime or night-time SOAEL with the proposed development in operation. Those areas within the proposed development corridor which would experience noise levels equal to or above the daytime and night-time SOAEL values with the proposed development in operation are identified by means of a computer model [REP8-039 to 054].
- 5.4.14 The ENMS [REP8-014] provides enhanced noise mitigation for the proposed development based on a quantitative assessment. The calculated reduction in noise levels from the implementation of new and/or replacement barriers is assessed using a three-part process comprising the magnitude of noise level reductions, a cost/ benefit analysis and the application of professional judgement. The locations and heights of the proposed barriers are described in Table 1 of the ENMS. In summary they comprise:
- 1011m of new 2m barrier;
  - 5881m of new 2.5m barrier;
  - 600m of new 3m barrier;
  - 3019m of new 3.5m barrier;
  - 3985m of replacement 3m barrier; and
  - 3971m of replacement 3.5m barrier.
- 5.4.15 The document finds that 3339 residential properties would benefit from the proposed development. When compared to the scenario "Do-Something 2022 without enhanced mitigation" it states that:



- 10 properties would benefit from major noise reductions (> 5 dB);
- 289 properties would experience moderate noise reductions (3 to 5 dB); and
- 3040 properties would experience minor noise reductions (1 to 3 dB).

5.4.16 The Applicant also states that visual changes resulting from the implementation of the ENMS are either beneficial or neutral for all enhanced mitigation measures EM1 to EM34.

### **ISSUES ARISING**

5.4.17 The main issues raised in the Examination are:

- adequate provision of noise barriers - the lengths and heights of noise barriers in a number of areas along the proposed development - notably (from West to East) Lower Earley, Emmbrook, Dorney Reach, The Merke (Datchet) and Cranford Park;
- construction effects - night-time noise and working hours;
- the durability of the proposed low-noise surfacing;
- noise reflection from single-sided barriers; and
- noise impacts on health.

### **Adequate provision of noise barriers**

5.4.18 The ENMS seeks to respond to concerns raised in representations submitted in response to the application. It is directed at the mitigation of operational noise and vibration and is welcomed by a number of IPs, as noted below. Nevertheless, there are a number of locations in which residents request further mitigation.

#### ***Lower Earley***

5.4.19 We visited the residential areas of Lower Earley during our site inspections [EV-004 to EV-007] and noted the extent to which this area is currently affected by noise from the M4. The local Councillor, Dr Norman Jorgensen [REP7-179], Mr David Green [REP8-120] and Mr John Booth [REP7-186] all welcome the provision of a 2.5m high acoustic barrier approximately 2km long where the M4 passes Lower Earley. However, they question why these proposed barriers are not 3.5m high, since there are other areas within the proposed development in which 2m or 2.5m high barriers were to be upgraded to 3.5m high. A number of locations are identified close to the M4 that would - in the residents' view - benefit from the 2km long Lower Earley barrier being raised to 3.5m rather than 2.5m in height.

5.4.20 Mr Clive Jones for Wokingham Liberal Democrats (WLD) questions [REP7-191] the criteria used to allocate barriers of different heights - cost/benefits, noise/health and judgement. He asks for the proposed acoustic fence to be extended to cover the entire length of the motorway from Junction 10 to Junction 11, for this fence to be

increased in height from 2.5m to at least 3.5m, and for a reduction in traffic speed from 70 to 50 mph between Junctions 10 and 11 for health reasons.

- 5.4.21 Mr Jones also challenges the basis for the night-time noise calculations. He asserts that night-time SOAEL calculations, if applied in year 1 of the proposed development, would represent a best case scenario in the noise reduction assessments, and lead to a recommended barrier height in Lower Earley of 3.0m, instead of the proposed 2.5m. He reaffirmed that his preferred barrier height remained 3.5m. The Applicant confirms [REP9-013] that the year 15 night-time SOAEL contour had been employed in the ENMS.
- 5.4.22 For locations in Lower Earley, with the enhanced noise mitigation in place [REP8-075; REP8-014] noise reductions of 3 to 5 dB are predicted with the proposed development in operation. Nevertheless, FoE questioned the costs of increasing the height of the barriers in this location [REP7-186].
- 5.4.23 The Applicant explains [REP7-161, REP8-028] that the methodology for the ENMS was based on a cost benefit analysis of the outcomes. This takes into account the estimated noise reductions, the number of properties which would benefit and the associated health benefits, and the costs of the barriers. Consequently, because a 3.5m barrier was appropriate in one location, such as Sindlesham, this did not mean that such a barrier would necessarily be appropriate in other locations. Also, the modelling used was based on a 3D model that took account of the height of the various properties and other features in the calculation of noise levels and the noise reductions provided by barriers.
- 5.4.24 The Applicant's assessment concludes that an increase in the height or length of barriers as sought for Earley would not have significant benefits in terms of noise mitigation. As a result, the increased cost could not be justified. We acknowledge that the proposed development would be funded by the public purse and therefore consider that the cost/benefit of further mitigation is therefore an important consideration. In these circumstances we agree that the increased costs of further noise mitigation for the Lower Earley area would not be justified.

### ***Emmbrook***

- 5.4.25 Councillor John Kaiser for WBC [REP7-174] refers to the gap in the proposed 3.5m barrier within Emmbrook which he asserts would fail to provide adequate noise protection measures for the future Hatch Farm development of 400 new homes which would be sited directly north of the M4 at this point. The Applicant points out that the impact of noise from the motorway would decrease across this site as a result of the implementation of low noise surfacing in the proposed development [APP-266, APP-270, REP8-076].

- 5.4.26 However, we agree with the Applicant that it would be for the developer of the Hatch Farm development to assess the noise situation with regard to the proposed development, and to ensure that appropriate mitigation is specified to provide acceptable external and internal noise levels.

***Dorney Reach***

- 5.4.27 SBDC [REP7-185] welcomes the improvement of barrier protection along both sides of the motorway in the Dorney Reach area [REP8-065].

***The Myrke, Datchet***

- 5.4.28 For The Myrke, at Datchet, Ms Jeannine Cooper [REP7-182] and Mr JA Harris [AS-035] raise the issue of acoustic fencing around the M4's complete curvature of The Myrke. However, there would be a benefit from the introduction of new low noise surfacing within the proposed development, and the existing 2m timber fence would be replaced with a new 2.5m high performance noise barrier. The new length of barrier would be 245m [REP8-067], which would extend the barrier 95m round the curvature of the M4 to the west of The Myrke.

- 5.4.29 We note that this 245m was in comparison to the 150m of new fencing that was previously specified in the ES [APP-152], and that there would be a minor/moderate noise decrease [REP8-083], which we find to be reasonable and proportionate.

***Cranford Park***

- 5.4.30 In Cranford Park, LBHill [REP8-014] challenges the heights of the barriers proposed in the ENMS. However, the Applicant's predictions show that the recommended 2m high barrier adjacent to Cranford Park would provide minor / moderate noise reductions across the park once the proposed development is in operation [REP8-014, REP8-115, REP8-016]. On this basis, the Applicant considers that there is no requirement from either a noise or visual perspective to extend the acoustic barrier EM34 eastwards along the slip road to Junction 3.

- 5.4.31 We have indicated in relation to the existing impact of the M4 on the historic assets in Cranford Park, that improvements to the noise environment could benefit the restoration of the listed buildings by increasing their attraction to visitors. However, we accept that mitigation must be proportionate to the proposed development and therefore we do not consider that any such a requirement would be justified.

***Summary of provision of noise barriers***

- 5.4.32 In accordance with NPSNN paragraphs 5.186 to 5.200, we find that the process detailed in the ENMS has been applied consistently throughout the proposed development, and the Applicant has sought to provide enhancement to the noise environment for residents along

the length of the proposed development. Furthermore, in view of the improvements which would be achieved by the ENMS, we accept the Applicant's case that there would not be sufficient further improvement to justify the additional expenditure of taxpayers' money. This conclusion is strengthened by our recommendation below for the long term maintenance of low noise surfacing through the DCO since that is an important factor in the improvement of the noise environment.

### **Construction effects**

- 5.4.33 The ENMS is not intended to mitigate construction noise. Nevertheless, some IPs such as Mr Green request that new barriers be erected prior to the start of construction [REP8-120].
- 5.4.34 We note that construction noise would be controlled through the measures proposed in DCO Requirement 21, *Control of noise during construction of the scheme*, and Section 12 of the CEMP [REP9-002].
- 5.4.35 Furthermore, the Applicant confirms [REP7-160, REP9-011] that whilst the construction of acoustic barriers would not be undertaken in advance of the main works, they would be carried out as early as practicable in the relevant sections (eg generally the acoustic barrier in a section would be completed as part of the verge works and hence prior to the completion of cabling and finishing activities in the relevant areas). This would allow the acoustic barriers to offer some protection to the later construction works and existing M4 traffic prior to the opening of the full proposed development.
- 5.4.36 Furthermore, Section 61 of the Control of Pollution Act 1974<sup>41</sup> would remain in effect to ensure that noise impacts are subject to further control. In these circumstances we are satisfied that adequate mitigation and controls would be in place to address general construction noise.
- 5.4.37 In relation to working hours during construction, LBHill [REP7-188] seeks a restriction on working hours at weekends to 08:00-16:00, instead of 07:00-16:00. The Council is also concerned that the provision for an additional one-hour start-up and close-down period would enable work effectively to begin at 06:00. The Council considers this to be particularly unreasonable given the proximity of the Sipson Road construction site to residential properties.
- 5.4.38 The specific working hours for construction in the vicinity of residential properties would be subject to agreement with local authorities [REP8-026] as part of the applications for consent under Section 61 of the Control of Pollution Act 1974 as stated in Sections 12.4 and 5.2 of the CEMP [REP9-002]. In these circumstances we are satisfied that the

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<sup>41</sup> <http://www.legislation.gov.uk/ukpga/1974/40>

hours of working specified through DCO Requirement 8, *CEMP*, are satisfactory.

- 5.4.39 The potential for noise disturbance from night-time working is raised by a number of Councils, including LBHill [REP7-188], SBC [REP7-175] and SBDC [REP7-185]. Measures proposed by the Applicant are set out in the *CEMP*, and would be similar to those used for other such schemes. Noise insulation measures, insulation and temporary rehousing measures are not included in the *CEMP*, as these would be assessed by local authorities as part of their consideration of the undertaker's applications under Section 61 of the Control of Pollution Act 1974.
- 5.4.40 We find that the provisions of Section 61 of the Control of Pollution Act 1974 are sufficient to protect local residents from significant noise and vibration impacts from night-time working.

### **Low noise surfacing**

- 5.4.41 The use of low noise surfacing material on all lanes and slip roads is relied on by the Applicant to provide improvements to the noise environment. However, the low noise surfacing - as with all surface materials - must be replaced as it degrades, and there are issues as to how much the effectiveness of the low noise surfacing diminishes through wear and tear over time, and whether the DCO Requirement 5, *Carriageway surfacing*, relating to the provision of low noise surfacing should seek its replacement into the future [EV-028, REP7-188, AS-035].
- 5.4.42 The Applicant states that in spite of the better acoustic durability of the hot rolled asphalt surfaces, research has concluded that low noise surfaces still outperform the hot rolled asphalt surfaces by 1 to 3 dB(A) after 10 years [EV-028, REP7-017]. The -3.5 dB correction for a low noise surface, as prescribed in the DMRB, is a reasonable average over the life of the surface for calculation and assessment purposes. The Applicant would agree to a maintenance period of the low noise surface for 15 years through DCO Requirement 5.
- 5.4.43 We deal with the issue of whether maintenance should be limited to 15 years in the DCO Chapter 8. Clearly the Applicant relies on the low noise surfacing for noise mitigation. The M4 passes through large built up areas with sensitive receptors in close proximity to the boundary of the motorway. The implementation of ALR would bring vehicles in closer proximity to residential properties and community uses. In these circumstances we consider that the measures which are relied on for noise mitigation should be secured as far as possible for the lifetime of the proposed development. We have included a provision for the SoS to approve an alternative material in the event that circumstances justify such a change.
- 5.4.44 We find that the Applicant's calculation for the mitigating effects of the material is reasonable, and subject to the provisions of Requirement

15 in the DCO, that the mitigation itself is satisfactory in accordance with NPSNN paragraphs 5.186 to 5.200.

### **Noise reflection from single sided barriers**

- 5.4.45 Arborfield and Newland Parish Council [AS-027] is concerned that barriers erected to protect a community on one side of the M4 would create a reflected noise envelope over properties on the opposite side. It seeks assurances that no new barriers would be erected which would add to the levels of noise experienced by its residents.
- 5.4.46 Proposals for new and replacement barriers between Junctions 10 and 11 are included within the ENMS. However, new barriers on the eastbound carriageway would be absorptive barriers rather than the standard reflective barriers in order to mitigate the concerns of residents of the Parish [REP6-016].
- 5.4.47 Furthermore, single sided barriers and noise reflection is taken into account in the noise assessment which has been carried out in accordance with the DfT regulations for noise. Since the noise assessment indicates a general reduction in noise levels for residents along the length of the proposed development, we find that there would not be any significant increase in noise as a result of reflection from barriers on the opposite carriageway, in accordance with NPSNN paragraphs 5.186 to 5.200.

### **Noise Impacts on Health**

- 5.4.48 All issues discussed within this Section have an impact on health. Some IPs, eg SBC [REP2-047] and Mrs Margaret Cocks [RR-253, REP4-022], refer to the health impacts of noise specifically. Mrs Cocks cites the World Health Organisation's Night Noise Guidelines, referenced above, for noise levels that should be achieved. However, with the proposed noise mitigation measures, there would be an enhancement in the noise environment of the M4 as a result of the proposed development when compared with the existing motorway. This accords with NPSNN paragraphs 5.186 to 5.200.
- 5.4.49 Health impacts of the proposed development are considered in more detail in Section 5.11 of this report.

### **SUMMARY AND CONCLUSIONS**

- 5.4.50 With the development of the ENMS, there would be enhancements to the basic level of noise mitigation proposed in the ES. As a result, a number of households would experience a noticeable improvement in their noise environment. At minimum, there would be an overall minor improvement in the noise environment for the length of the proposed development as a result of the low noise surfacing and provision of acoustic fencing. With the use of low noise surfacing secured through the DCO for future resurfacing, we find that with the scheme in operation it would provide some enhancement in terms of noise, and would accord with paragraphs 5.186 to 5.200 of the NPSNN.

- 5.4.51 To secure this improvement in conditions through the lifetime of the scheme, we recommend an amendment to Requirement 5, *Carriageway surfacing*, which would require that any re-surfacing of the carriageway is carried out using low noise surfacing material with similar (or improved) noise reduction properties to the thin surface course system currently proposed. Although no time limit is included in the recommended requirement, the provision is subject to approval by the SoS, following consultation with the relevant planning authority, so changes could be made to the road surfacing if justified for example by a change in circumstances.
- 5.4.52 In addition, and having regard to the importance of the acoustic barriers to local communities, we consider that the local authorities should be in a position to enforce the long term maintenance of the barriers. The addition of a maintenance clause to Requirement 22, *Acoustic barriers*, would secure this position. Again, no time limit is included in the recommended requirement, but the provision is subject to approval by the SoS, so changes could be made if justified for example by a change in circumstances.
- 5.4.53 We address the detailed provisions of the Requirements 5 and 22 in Chapter 8. The Applicant [REP8-005] does not agree with the Panel's recommended amendment to Requirement 5, *Carriageway surfacing*. However, the incorporation of the low noise surfacing into the scheme forms a major measure of mitigation in the Applicant's case in favour of the proposed development. Having regard to the large numbers of sensitive receptors located in close proximity to the boundaries of the M4, and the fact that traffic would be brought closer to these receptors as a result of the proposed development, we consider that the amendment to Requirement 5 is fully justified and necessary to a grant of consent.
- 5.4.54 The Applicant also objects to the addition of a clause which requires the maintenance of acoustic barriers at Requirement 22, on the basis that maintenance would be secured through the provisions of the HE licence. However, we consider it essential that the barriers be properly maintained in order to secure effective mitigation in the long term for local communities. Damage or deterioration of a noise barrier could more easily be reported by a local resident to the local authority than direct to HE, and the local authority would have the power to enforce against HE if action is not taken to carry out repairs and maintenance. As a result we consider that a maintenance clause is justified by the particular circumstances in this case.
- 5.4.55 We address the justification and drafting of Requirements 5 and 22 in more detail in Chapter 8. Subject to the changes to those requirements, we find that the Applicant has adopted a robust, consistent, reasonable and proportionate approach to assess the noise characteristics of the proposed development. The measures proposed for mitigation would provide long term improvements to the noise environment for communities along the length of the scheme. As a

result we conclude that the proposals accord with paragraphs 5.186 to 5.200 of the NPSNN.

## **5.5 WASTE MANAGEMENT**

### **POLICY BACKGROUND**

5.5.1 The NPSNN addresses waste management in paragraphs 5.39 to 5.45. In line with broader national policy [Waste (England and Wales) Regulations 2011]<sup>42</sup>, developments are expected to ensure that sustainable waste management is implemented through the waste hierarchy as follows:

- Prevent;
- Reuse;
- Recycle;
- Recovery, including energy recovery; and
- Disposal.

5.5.2 The Applicant should seek to minimise the volume of waste produced and the volume of waste sent for disposal unless it can be demonstrated that the alternative is the best overall environmental outcome.

5.5.3 The SoS needs to consider the extent to which the Applicant proposes an effective process that would be followed to ensure effective management of hazardous and non-hazardous waste arising from the construction and operation of the proposed development.

### **APPLICANT'S APPROACH**

5.5.4 The Applicant addresses the management of materials and waste in ES Chapter 11: *Materials and waste* [APP-151]. This is supported by the CEMP [APP-293, REP9-002], together with a number of annexes to the CEMP - Annex A: *Site Waste Management Plan* (SWMP) [APP-294], Annex B: *Materials Management Plan* (MMP) [APP-295], and Annex C: *Logistics* [APP-296], as well as ES Appendix 11-2 *Landfill Sites* [APP-345].

5.5.5 In Sections 3 and 4 of the CEMP, the Applicant states that the principal objectives of sustainable resource management - to use material resources more efficiently, reduce waste at source and reduce the quantity of waste arisings that require final disposal to landfill - would be translated to the proposed development with the aim of maximising the reuse of site-won materials (either onsite or offsite), segregating construction and demolition materials onsite and ultimately maximising diversion from landfill by reuse, recycling and recovery.

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<sup>42</sup> <http://www.legislation.gov.uk/ukxi/2011/988/contents/made>



- 5.5.6 All waste would be managed by the Contractor in accordance with the waste hierarchy, as set out in the Waste (England and Wales) Regulations 2011, and in such a way as to prevent harm to human health, amenity and the environment.
- 5.5.7 This would include measures such as careful storage of materials on site and 'just in time' deliveries which would be secured through the development and implementation of the MMP [APP-295] and Logistics Plan [APP-296].
- 5.5.8 The outline SWMP [APP-294] has been prepared in accordance with industry best practice Waste and Resources Action Programme (WRAP)<sup>43</sup> guidance, and would be updated and delivered by the Contractor in accordance with the same guidance.
- 5.5.9 The outline SWMP sets a framework to facilitate good practice and would be developed further by the Contractor to:
- (a) identify the volume and tonnes of excavated materials and other waste streams, and volume and tonnes (for example wood, brick, concrete, soils, plastics) likely to be produced during construction and demolition, to establish the potential for reuse (onsite or offsite) and recycling;
  - (b) identify opportunities for waste minimisation and management;
  - (c) identify possible options for designing out waste;
  - (d) identify the most significant opportunities to increase reuse and recycling rates (termed "Waste Recovery Quick Wins") and the realistic recovery rates for each waste type;
  - (e) identify suitable waste management contractors and record appropriate licences, permits, waste transfer notes and hazardous waste consignment notes;
  - (f) consider appropriate site practices such as how waste materials will be segregated and the measures that will be used for raising awareness among site operatives for waste reduction, reuse and recycling; and
  - (g) set out the method for measuring and auditing Construction, Demolition and Excavation (CDE) waste to enable more effective waste management through the setting of performance targets for segregation and recycling.

### **ISSUES ARISING**

- 5.5.10 The main issues arising are:
- plans for the management of materials and waste;
  - Site Waste Management Plan; and
  - waste disposal facilities.
- 5.5.11 Examination of these three issues now follows.

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<sup>43</sup> <https://www.gov.uk/waste-resources-action-programme-wrap>

## **Plans for the management of materials and waste**

- 5.5.12 BCC [REP7-180] considers that there is a need for more or better information, as well as clarification, of how plans and parties would operate, and that dialogue should continue into the future to inform the Council's minerals and waste planning function.
- 5.5.13 The Council is not clear how the various plans would interact and how the separate parties (the Applicant, its main contractor, and subcontractors) would operate in respect of the management of materials and waste. Specifically with regard to the management of waste, this relationship would need to be clarified, to prevent waste going to destinations without planning permission and leading to enforcement situations.
- 5.5.14 The Applicant clarifies [REP8-003] that the main purpose of the SWMP would be to assess and record how waste is reduced, reused, recycled and disposed of by the proposed development. The MMP would provide a framework for, and set out how, the materials associated with the proposed development would be procured, handled and managed in the most efficient and sustainable manner.
- 5.5.15 The MMP and SWMP are live documents, which would be reviewed and updated regularly by the contractor as further and more detailed information becomes available. They are daughter documents of the CEMP, which is secured through DCO Requirement 8, *CEMP*. The CEMP and its daughter documents provide for continued dialogue with the waste local authorities, and we find that this secures the waste management mechanisms.

## **Site Waste Management Plan**

- 5.5.16 BCC [REP7-180] is not satisfied that the SWMP [APP-294] is based on assumptions and professional judgements set out in the ES. BCC does not agree that the assessment should consider the worst case scenario in which there would be no diversion from landfill, reuse, or recovery since this would fail to inform the volume of wastes requiring disposal to landfill, as well as the requirement for aggregates. The Council also wishes to see targets adopted in the proposed development, since they would incentivise the Applicant and its contractors to achieve better rates of reuse and recovery rather than worse.
- 5.5.17 The Applicant [REP8-003] states that every effort would be made to recycle and retain all suitable material on site, hence minimising the waste material that needs to be disposed of at suitably licensed waste facilities, in accordance with the CEMP Section 11.3 [REP9-002]. The Applicant provided examples of recent HE schemes to BCC, on the 29 February 2016, to show the expected percentages of materials which could be recycled.
- 5.5.18 Where practicable, the Applicant intends to generate a percentage of aggregate from recycling of inert CDE waste from demolition of the

existing motorway infrastructure and site won material. This commitment is set out in the CEMP paragraph 11.8.2 [REP9-002]. As more specific information becomes available during detailed design and advanced ground investigation, the Applicant is committed to providing further details of where and how aggregates would be generated and managed.

- 5.5.19 The Applicant presents a reasonable worst case scenario in the ES [APP-151] due to the lack of ground investigation data and its inability to present hazardous waste figures. However, the Applicant has now recalculated the level of waste arisings using an average level of 95% diversion from landfill of non-hazardous materials through reuse and recovery. This is based on actual levels of reuse and recovery from similar schemes, such as the M3 (98% reuse and recovery rate achieved) and the M25 (95% reuse and recovery rate achieved).
- 5.5.20 Based on the 95% diversion from landfill, the Applicant's estimate is that around 37,000 tonnes of materials from the proposed development would require disposal to landfill. These figures would be updated by the contractor when initial ground investigation data becomes available and the nature of the ground is understood in accordance with the CEMP paragraph 11.8.2 [REP9-002]. It is anticipated that final figures would be available in November/December 2016 when ground investigation would be completed.
- 5.5.21 We are satisfied that the Applicant would minimise the level of waste sent to landfill, and maximise recycling in accordance with the waste hierarchy as required in the national policy for waste.

### **Waste Disposal Facilities**

- 5.5.22 BCC points out that available capacity for disposal of inert wastes to landfill in Buckinghamshire is limited, and likely to be in demand in a similar timeframe to other major infrastructure projects, including HS2, the Western Rail Link to Heathrow, and Crossrail [REP7-180]. A reduction in the volume of wastes that require disposal off-site to a facility that has both a valid planning permission and a permit from the EA is sought. The objective of seeking the reduction of wastes at source is consistent with the National Planning Policy for Waste<sup>44</sup> and the Buckinghamshire Minerals and Waste Core Strategy<sup>45</sup>.
- 5.5.23 The table of waste management facilities in the ES is considered by BCC to be inaccurate [REP7-180]. The real capacity of facilities for disposal of inert wastes is significantly less than originally stated by the Applicant. The accuracy of available capacity is particularly important given other potential sources of waste for the same limited

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<sup>44</sup> <https://www.gov.uk/government/publications/national-planning-policy-for-waste>

<sup>45</sup> <http://www.buckscc.gov.uk/environment/planning/minerals-and-waste-planning-policy/minerals-and-waste-core-strategy-2012/>

capacity including HS2, where the potential volumes of inert wastes arising for disposal in Buckinghamshire could be as high as 2.5 million tonnes per annum. HS2 is one of several infrastructure schemes which might seek landfill capacity in a similar timeframe.

- 5.5.24 However, the SWMP [APP-294] would set out how the contractor would monitor and record waste that needed to be disposed of off-site. Furthermore the MMP [APP-295] Site Records paragraph 1.1.1.6 already deals with the particular issues of licences, permits and planning approvals, and reference to the need to obtain planning permission is included in the CEMP paragraph 11.4.12 [REP9-002], as requested by BCC.
- 5.5.25 Waste capacity records for landfill and waste management facilities within Buckinghamshire have been updated [REP8-003] based on the estimate provided by BCC. The Applicant is in communication with the EA to further verify the true available capacity of facilities that could be utilised by the proposed development, and would continue in communication with BCC and utilise the statement of waste capacity that BCC is in the process of producing.
- 5.5.26 The Applicant would commence direct communication with potential disposal facilities following the receipt of initial ground investigation data in July 2016, which would help inform the levels of inert excavated materials that would require disposal. The Applicant would also commence direct communication with other potential disposal facilities, which would accept other (non-inert) types of materials not suitable for reuse or recovery.
- 5.5.27 We are satisfied that, with the level of management proposed by the Applicant, adequate waste disposal facilities would be available to accommodate waste from the proposed development.

### **SUMMARY AND CONCLUSIONS**

- 5.5.28 Work on the provisions for materials and waste management continued throughout the Examination and the Applicant is working together with BCC to deal with the issues raised.
- 5.5.29 The management of waste and materials are secured through the SWMP [APP-294] and MMP [APP-294], which are themselves secured through the CEMP [REP9-002]. The CEMP is secured through DCO Requirement 8, *CEMP*.
- 5.5.30 In the event that development consent is granted, the CEMP, SWMP and MMP would be dynamic documents that would be updated by the contractor as the proposed development is developed and information becomes available. The local authorities and EA would be actively involved in plans for the management of waste and materials, taking account of available facilities.

5.5.31 The Panel finds that all necessary controls would be in place through the DCO and that the proposed development complies with NPSNN paragraphs 5.37 to 5.45 in this respect.

## **5.6 DESIGN**

### **POLICY BACKGROUND**

5.6.1 The NPSNN sets out the criteria for good design for national network infrastructure in paragraphs 4.28 to 4.35.

5.6.2 Design is to be dealt with as an integral consideration from the outset of a proposal, in which visual appearance should be a key factor in considering the design of new infrastructure, as well as functionality, fitness for purpose, sustainability and cost.

5.6.3 A good design should:

- (a) meet the principal objectives of the scheme by eliminating or substantially mitigating the identified problems by improving operational conditions and simultaneously minimising adverse impacts;
- (b) mitigate any existing adverse impacts wherever possible, for example, in relation to safety or the environment; and
- (c) sustain the improvements to operational efficiency for as many years as is practicable, taking into account capital cost, economics and environmental impacts.

5.6.4 The Applicant should take into account:

- (a) functionality (including fitness for purpose and sustainability);
- (b) aesthetics (including the scheme's contribution to the quality of the area in which it would be located);
- (c) the role of technology in delivering new national networks projects; and
- (d) opportunities to demonstrate good design in terms of siting and design measures relative to existing landscape and historical character and function, landscape permeability, landform and vegetation.

5.6.5 The ExA and SoS should take into account the ultimate purpose of the infrastructure and bear in mind the operational, safety and security requirements which the design has to satisfy.

### **APPLICANT'S APPROACH**

5.6.6 The principal documents detailing the design of the proposed development are the Engineering and Design Report (EDR) [APP-096 to APP-122] and the ES [APP-136 to APP-358].

5.6.7 The Applicant considers design options in the ES Chapter 3, *Design Iterations and Alternatives Considered* [APP-143]. Four operational regime options and design concepts are considered:

- (1) Dynamic hard shoulder operating regime, utilising the hard shoulder as a running lane during peak periods or for event management;
- (2) Dynamic hard shoulder operating regime, with gantries at the start and end of the managed motorway section;
- (3) ALR, incorporating the controlled use of the hard shoulder as a permanent running lane;
- (4) Dynamic hard shoulder operating regime, utilising minimal infrastructure to operate the dynamic hard shoulder.

5.6.8 Option 3 is selected for the proposed development, and is referred to as an ALR smart motorway.

5.6.9 The Panel's view is that the options selection follows Government policy for the development of the SRN in accordance with NPSNN paragraph 2.23 and is soundly based.

#### **ISSUES ARISING**

5.6.10 We assess below the four main design issues identified in the NPSNN:

- (a) functionality;
- (b) aesthetics;
- (c) technology; and
- (d) siting relative to the existing landscape.

5.6.11 There were no other significant issues raised in submissions to the Examination.

#### **Functionality: fitness for purpose and sustainability**

5.6.12 In comparison to a managed motorway with use of the hard shoulder restricted to periods of congestion as used elsewhere, for example on the M42, the ALR concept is the latest evolution of the smart motorway concept [REP2-002.10]. The aim is to optimise the level of infrastructure required to operate the motorway safely without the hard shoulder, whilst continuing to deliver schemes that tackle the problem of growing congestion and unreliable journeys.

5.6.13 As an ALR smart motorway, we believe that the proposed development meets the requirement of NPSNN 2.23 - to implement smart or managed motorways to enhance the SRN by increasing capacity, reducing congestion and improving performance without taking additional land, and generally with fewer environmental implications than other forms of development. The ALR concept offers better levels of operational performance than the alternative concepts, such as peak period HSR as used on the M42 [REP7-018].

#### **Aesthetics: the proposed development's contribution to the**

### **quality of the area in which it would be located**

- 5.6.14 The impact of the proposed development with regard to landscape and visual impacts is considered in Section 5.13 of this report. The Panel is satisfied that the proposed design meets NPSNN paragraphs 4.29 et seq, to produce sustainable infrastructure sensitive to place, efficient in the use of natural resources and energy used in their construction, matched by an appearance that demonstrates good aesthetics as far as possible. The proposed development would contribute to aesthetics through improved operational efficiency, less congestion, the visual and noise mitigation of new and improved noise barriers, and the noise mitigation of low noise surfacing.
- 5.6.15 The NPSNN at paragraph 4.30 acknowledges that, given the nature of much national network infrastructure development, there may be a limit on the extent to which it can contribute to the enhancement of the quality of the area. With this caveat in mind, we find that the proposed development is consistent with NPSNN paragraphs 4.28 to 4.35.

### **Role of technology in delivering new national networks projects**

- 5.6.16 The technology to be used for the proposed development is central to its performance. Similar technology is already employed on the M25 ALR schemes [REP2-002.10].
- 5.6.17 NPSNN paragraph 2.23 seeks to enhance the SRN through upgraded technology to address congestion and improve performance, while paragraph 4.33 requires Applicants to consider the role of technology in delivering new national networks projects. We find that the proposed development would introduce enhanced signage on the motorway, as well as mechanisms for optimising motorway performance, detecting incidents and alerting drivers to road conditions.

### **Siting and design measures**

- 5.6.18 NPSNN paragraph 4.34 seeks demonstration of good design in terms of siting and design measures relative to existing landscape and historical character and function, landscape permeability, landform and vegetation.
- 5.6.19 The siting is largely prescribed by the location of the existing motorway. Where the proposed development has physical impacts, we consider these under the individual topic headings in this Chapter. We find that the proposed design meets NPSNN paragraphs 4.28 to 4.35 with regard to siting and associated design measures.

### **SUMMARY AND CONCLUSIONS**

- 5.6.20 The design of motorways is well-understood and established, and the proposed development is not innovative in engineering design terms.

Although the design of ALR smart motorways is relatively new, the proposed development is able to draw on experience from the M25 ALR Schemes.

- 5.6.21 The environmental effects of the design - notably in relation to road safety, air quality, health, noise, water environment, flood risk, landscape and visual impacts, and the historic environment - are considered separately in this Chapter. There would be some notable improvements in terms of noise, and to some extent, visual impact, and potentially harmful effects, such as the loss of existing vegetation, are mitigated to a large extent.
- 5.6.22 As a result we conclude that the proposed development meets the requirements of the NPSNN, in particular paragraphs 2.23 and 4.28-4.35, as far as reasonably practicable.

## **5.7 AIR QUALITY AND EMISSIONS**

### **POLICY BACKGROUND**

- 5.7.1 The NPSNN at paragraph 5.3 advises that increases in emissions of pollutants during the construction or operation phases of projects on the national networks can result in the worsening of local air quality and that increased emissions can contribute to adverse impacts on human health and on protected species and habitats. However it also states that, for example, reduced congestion can have beneficial effects on air quality.
- 5.7.2 The NPSNN also addresses the effects of a project on air quality in paragraphs 5.4 to 5.13. In particular, it states at paragraph 5.9 that *"the Secretary of State must be provided with a judgement on the risk as to whether the project would affect the UK's ability to comply with the Air Quality Directive"*.
- 5.7.3 At paragraph 5.11 it states that *"air quality considerations are likely to be particularly relevant where schemes are proposed:*
- *within or adjacent to Air Quality Management Areas (AQMAs); roads identified as being above Limit Values or nature conservation sites (including Natura 2000 sites and SSSIs, including those outside England); and*
  - *where changes are sufficient to bring about the need for a new AQMA or change the size of an existing AQMA; or bring about changes to exceedances of the Limit Values, or where they may have the potential to impact on nature conservation sites."*
- 5.7.4 The proposed development runs through nine AQMAs. These are: Wokingham, Reading, Bray/M4, South Bucks, Slough No.1, Slough No.2, Slough No.3, Hillingdon and Hounslow. A number of other AQMAs have been established in the vicinity of the site [APP-146]. The AQMAs fall within three zones/agglomerations. These are the Greater London Urban area, the Reading/Wokingham Urban area and the



South East area. According to the Defra Air Quality plan<sup>46</sup>, all of these had exceedances of the annual mean limit value for NO<sub>2</sub> in 2013.

- 5.7.5 In paragraph 5.12 the NPSNN states that the SoS *"must give air quality considerations substantial weight where, after taking into account mitigation, a project would lead to a significant air quality impact in relation to EIA and/or where they lead to a deterioration in air quality in a zone/agglomeration."*
- 5.7.6 It continues at paragraph 5.13 that the SoS *"should refuse consent where, after taking into account mitigation, the air quality impacts of the scheme will:*
- *result in a zone/agglomeration which is currently being reported as being compliant with the Air Quality Directive becoming non-compliant; or*
  - *affect the ability of a non-compliant area to achieve compliance within the most recent timescales reported to the European Commission at the time of the decision."*
- 5.7.7 Mitigation is addressed in paragraphs 5.14 to 5.15 of the NPSNN where measures are stated to include *"physical means including barriers to trap or better disperse emissions, and speed control."*
- 5.7.8 Dust emissions are addressed at paragraphs 5.81 to 5.89 of the NPSNN. For nationally significant infrastructure projects of the type covered by this NPS some impact on amenity for local communities is likely to be unavoidable but should be kept to a minimum and should be at a level which is acceptable. The SoS *"should ensure that sufficient information is provided to show that any necessary mitigation will be put in place and it is suggested that a construction management plan may help codify mitigation."*
- 5.7.9 The NPPF does not deal directly with NSIPs but states at paragraph 124 that planning policies should *"sustain compliance with and contribute towards EU limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas, and the cumulative impacts on air quality from individual sites in local areas."*
- 5.7.10 The UK Government has a statutory obligation to fulfil the requirements of the EU Air Quality Directive 2008<sup>47</sup> (AQD). The AQD is transposed into UK Statute through the Air Quality Standards Regulations 2010<sup>48</sup>. Where a pollutant level exceeds any of the relevant limits or target values the SoS must draw up and implement an air quality plan so as to achieve that value. In the UK a majority of

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<sup>46</sup> <https://www.gov.uk/government/publications/air-quality-in-the-uk-plan-to-reduce-nitrogen-dioxide-emissions>

<sup>47</sup> Directive 2008/50/EC on ambient air quality and cleaner air for Europe

<sup>48</sup> [http://www.legislation.gov.uk/uksi/2010/1001/pdfs/ukxi\\_20101001\\_en.pdf](http://www.legislation.gov.uk/uksi/2010/1001/pdfs/ukxi_20101001_en.pdf)

zones/agglomerations exceed the relevant limit or target values and the air quality plans are in place.

- 5.7.11 The AQD sets limit values for the protection of human health for NO<sub>2</sub> and PM<sub>10</sub>. These are that:
- annual mean concentration levels of NO<sub>2</sub> do not exceed 40µg/m<sup>3</sup>; and
  - hourly mean concentration levels of NO<sub>2</sub> do not exceed 200µg/m<sup>3</sup> of NO<sub>2</sub> more than 18 times a calendar year; and
  - 24-hour average of 50µg/m<sup>3</sup> of PM<sub>10</sub> not to be exceeded more than 35 times a year.
- 5.7.12 In addition to the AQD the Environment Act 1995<sup>49</sup> places a duty on local authorities to review and assess air quality in their area and if any standards are being exceeded or unlikely to be met by the required date, they must set up AQMAs and implement Air Quality Management Plans (AQMPs).
- 5.7.13 The UK Government is currently subject to infraction proceedings for breaching the Directive with regard to NO<sub>2</sub> levels. It has been successfully challenged in the Supreme Court for failing to comply with the Directive.
- 5.7.14 In April 2015 the Supreme Court ordered that the UK Government must submit new air quality plans to the European Commission by no later than 31 December 2015<sup>50</sup>. In response to the judgement of the Supreme Court, Defra published the UK's air quality plan in December 2015. The plan comprises a technical report, list of UK and national measures to be read alongside the individual zone plans and an overview document *Improving air quality in the UK, Tackling nitrogen dioxide in our towns and cities*, December 2015.
- 5.7.15 There have been two updates since the publication of the plan, one of which was to update PM emissions factors in Table D5. The air quality plan sets out measures for the achievement of compliance with the requirements of the AQD [REP5-004.10].
- 5.7.16 In the context of the application project, it is notable that the UK's Air Quality Plan states that the largest source of emissions in areas of greatest concern are from diesel vehicles. This is due to both the significant growth in vehicle numbers over the last ten years and emission standards not meeting the expected reductions under real world driving conditions compared to laboratory testing. The failure of diesel vehicles to fulfil EU emission standards in real world driving

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<sup>49</sup> <http://www.legislation.gov.uk/ukpga/1995/25>

<sup>50</sup> <https://www.supremecourt.uk/cases/docs/uksc-2012-0179-judgment.pdf>

conditions was recognised before the revelations about the use of defeat devices in 2015<sup>51</sup>.

- 5.7.17 In relation to the potential link between NO<sub>2</sub> concentrations and health, Defra<sup>52</sup>, using interim recommendations from a working group of the Committee on the Medical Effects of Air Pollution (COMEAP), estimates an effect on mortality equivalent to 23,500 deaths annually in the UK based on NO<sub>2</sub> concentrations. It goes on to say that many sources of NO<sub>x</sub> are also sources of particulate matter. The impact of small particulate matter (PM<sub>2.5</sub>) is estimated to have an effect on mortality equivalent to nearly 29,000 deaths in the UK<sup>53</sup>. It states that there may be an overlap between these two estimates but that the combined impacts of these two pollutants "*is a significant challenge to public health*".

## **APPLICANT'S APPROACH**

### **Air quality assessment**

- 5.7.18 An assessment of the air quality impacts of the proposed development during construction and operation is given in ES Chapter 6 *Air Quality* [APP-146]. The methodology used is that set out in the DMRB<sup>54</sup> and associated IANs. The IANs used are:
- IAN 170/12<sup>55</sup> v3: Updated air quality advice on the assessment of future NO<sub>x</sub> and NO<sub>2</sub> projections for users of DMRB Volume 11, Section 3, Part 1 Air Quality;
  - IAN 175/13<sup>56</sup>: Updated air quality advice on risk assessment related to compliance with the EU Directive on ambient air quality and on the production of Scheme Air Quality Action Plans for users of DMRB Volume 11, Section 3, Part 1 Air Quality; and
  - IAN 174/13<sup>57</sup>: Updated advice for evaluating significant local air quality effects for users of DMRB Volume 11, Section 3, Part 1 Air Quality.
- 5.7.19 At a late point in the air quality assessment period, IAN 185/15<sup>58</sup> was released: Updated traffic, air quality and noise advice on the

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<sup>51</sup> In 2015 US regulatory authorities discovered that Volkswagen (VW) had fitted some of their vehicles with illegal software ('defeat devices') to enable them to pass laboratory emission tests.

<sup>52</sup> Defra analysis using interim recommendations from COMEAP's working group on NO<sub>2</sub>. The working group made an interim recommendation for a coefficient to reflect the relationship between mortality and NO<sub>2</sub> concentrations (per µg/m<sup>3</sup>). COMEAP has not yet made any estimates of the effects of NO<sub>2</sub> on mortality. Any analysis will be subject to change following further analysis by the working group and consultation with the full committee.

<sup>53</sup> COMEAP (2009) The Mortality Effects of Long-Term Exposure to Particulate Air Pollution in the United Kingdom

<sup>54</sup> Department for Transport (2007) Design Manual for Roads and Bridges, Volume 11, Section 3, Part 1: HA 207/07 Air Quality

<sup>55</sup> <http://www.standardsforhighways.co.uk/ha/standards/ians/pdfs/ian170.pdf>

<sup>56</sup> <http://www.standardsforhighways.co.uk/ians/>

<sup>57</sup> <http://www.standardsforhighways.co.uk/ians/pdfs/ian174.pdf>

<sup>58</sup> <http://www.standardsforhighways.co.uk/ians/pdfs/ian185.pdf>

assessment of link speeds and generation of vehicle data into 'speed-bands' for users of DMRB Volume 11, Section 3, Part 1 Air Quality and Volume 11, Section 3, Part 7 Noise.

- 5.7.20 An assessment of compliance with the EU Directive on Ambient Air Quality (2008/50/EC) was undertaken by the Applicant using IAN 175/13. The assessment uses the results of the local air quality modelling overlaid on the Defra compliance network provided by the Applicant to establish whether, for each road, the change in NO<sub>2</sub> concentrations would result in:
- a compliant zone becoming non-compliant; and/or
  - delay Defra's date for achieving compliance for the zone; and/or
  - an increase in the length of roads in exceedance in the zone which would be greater than 1% when compared to the previous road length.
- 5.7.21 For consistency with the assessment of local operational air quality effects for public exposure, the assessment of National and European designated habitat sites also follows the advice in the DMRB [APP-146]. The Applicant assesses the change in concentrations of NO<sub>x</sub>, and in turn the change in nitrogen deposition rate for the European and nationally designated habitat sites within 200m of an affected link. The results of this assessment are described within Section 5.9 biodiversity and ecological conservation.
- 5.7.22 For air quality modelling the Applicant uses the methodology, known as 'Gap Analysis' which involves verification of modelled total NO<sub>2</sub> concentrations [APP-146]. The modelled results are then adjusted to represent the observed Long Term Trend (LTT) profile as described in the IAN 170/12, taking into account the introduction of Euro6/VI technology. The use of the LTT<sub>E6</sub> provides results which the Applicant considers to present a realistic worst case scenario. Allowances are made for the introduction of Euro 6/VI, but a precautionary approach is applied to accommodate the potential for a shortfall in performance in the real world. As a result, the anticipated improvements in air quality set out in Defra guidance are not adopted in the Gap Analysis results for 2022 [REP7-019, REP7-026].
- 5.7.23 The Applicant adopts the definition of levels of significance set out in IAN 174/13. A change in predicted annual average concentrations of NO<sub>2</sub> or PM<sub>10</sub> of less than 0.4 micrograms per metre cubed (µg/m<sup>3</sup>) is considered to be so small as to be imperceptible. A change (impact) that is imperceptible, given normal bounds of variation, would not be capable of having a direct effect on local air quality that could be considered to be significant. The significance of the effect is defined in terms of the number of properties for which there would be a worsening of air quality which is already above the objective or the creation of a new exceedance as follows:
- large: 1-10 properties with a change of >4µg/m<sup>3</sup>;
  - medium: 10-30 properties with a change of >2µg/m<sup>3</sup> to 4µg/m<sup>3</sup>;

- small: 30-60 properties with a change of  $>0.4\mu\text{g}/\text{m}^3$  to  $2\mu\text{g}/\text{m}^3$ .
- 5.7.24 For the construction phase, the air quality study area considers HGVs, traffic management assessments and the local operational assessment for the proposed development and identifies those routes where the proposed development might have an impact [APP-146]. Affected road links are identified by comparing traffic data with and without the proposed development against the local air quality screening criteria set out below:
- road alignment will change by 5m or more; or
  - annual average daily traffic (AADT) flows will change by 1,000; or
  - heavy duty vehicles (HDV) (vehicles more than 3.5 tonnes, including buses and coaches) flows will change by 200 AADT or more; or
  - daily average speeds will change by 10km/h or more; or
  - peak hour speed will change by 20km/h or more.
- 5.7.25 The sensitive receptors referred to in the assessment are locations with public exposure where members of the public may be affected by air quality impacts. In relation to the proposed development, sensitive receptors are predominantly residential properties, but can also include, for example, schools, internationally and nationally designated ecosystems and allotment gardens (construction dust only).
- 5.7.26 The sensitive receptors most likely to be affected by construction dust are those within 200m of the proposed development route, bridges, and construction compounds. Key sensitive receptor locations that may require mitigation to reduce the effects of dust emissions are identified. Those most likely to be affected by construction HGV movements are those located within 200m of the access roads to the proposed development route, bridges and the CCs. An assessment is also made of construction phase traffic management to identify the potential effect of the proposed speed restrictions along the proposed development during the construction phase and any associated re-routing of traffic onto the wider road network [APP-146].
- 5.7.27 The local operational air quality assessment considers ambient concentrations of key road traffic pollutants  $\text{NO}_2$  and  $\text{PM}_{10}$ , and changes in concentrations at locations of public exposure.
- 5.7.28 For the operation of the proposed development, there are some 3,275 sensitive receptors along the proposed development [APP-146]. Affected road links are identified and are subject to location-specific modelling for the local operational air quality assessment [APP-193, Drawings 6.1 to 6.35]. The receptors represent worst case exposure of sensitive receptors adjacent to road links predicted to experience a significant change in traffic flows. The receptors modelled are predominantly residential properties, with three schools. The schools are Sefton Park Primary School, Dorney School and Cherry Lane Primary School.

- 5.7.29 Local authority monitoring data is used to inform the air quality assessment, with data collected through a combination of automatic monitoring stations and passive NO<sub>2</sub> diffusion tubes. Additional passive diffusion tube monitoring was undertaken by the Applicant along the proposed development in 2009 and in March 2013 to provide data as close to sensitive receptors as possible [APP-146].
- 5.7.30 A compliance risk assessment considers the potential effect of the operation of the proposed development upon the future compliance of zones as reported by the Defra to the European Commission.

### **Applicant's results**

#### *Construction*

- 5.7.31 The construction programme is expected to last some five years. The Applicant has proposed a number of environmental management plans to mitigate effects particularly during construction. The CTMP [APP-146, REP8-010] is one of these and is secured by DCO Requirement 18. With implementation of the CTMP no significant air quality effects are expected from construction phase HGV movements or arising from the construction phase traffic more generally [APP-146, REP8-010].
- 5.7.32 Sensitive receptors located within 200m of the proposed development, bridges or construction compounds could be adversely affected by construction activities. It is intended that such impacts should be controlled by the implementation of suitable mitigation measures secured as part of the CEMP [REP9-002] secured by DCO Requirement 8. Examples of control measures that are expected to be included in order to minimise dust emissions are provided [APP-304].

#### *Operation*

- 5.7.33 NO<sub>2</sub> and PM<sub>10</sub> are the two main pollutants considered in assessing the operational effects of traffic on the national networks. The assessment predicts that the concentrations of PM<sub>10</sub> would be well below the annual average objective value in 2022, both with and without the proposed development, for all sensitive receptors, with a maximum predicted concentration of 26.3µg/m<sup>3</sup> with the proposed development. Similarly, the 24-hour PM<sub>10</sub> objective value is also not predicted to be exceeded for more than the permissible 35 days at any sensitive receptor, the maximum number of predicted days of exceedance being 16 days with or without the proposed development. The Applicant's assessment therefore focuses on NO<sub>2</sub> pollution for local operational impacts.
- 5.7.34 Diffusion tube monitoring data within the study area shows that the annual average objective for NO<sub>2</sub> has been exceeded at 90 locations of the 197 considered by the Applicant. Details of the site locations and results for diffusion tubes with concentrations above the 40µg/m<sup>3</sup> NO<sub>2</sub> annual average objective are set out in the baseline elements of the relevant junction by junction sections in the ES [APP-146].

- 5.7.35 The AQMAs and sensitive receptors are identified on a location-specific basis. The effects at sensitive receptors close to the M4 are described for each link of the proposed development and affected routes off of the proposed development for construction dust effects and local operational effects [APP-146, Section 6.5].
- 5.7.36 The results show 189 receptors where annual mean concentrations of NO<sub>2</sub> are predicted to be above the objective value with the proposed development, but the Applicant states that the vast majority (171) of these receptors are predicted to experience imperceptible increases in annual mean NO<sub>2</sub>. These receptors are in the following locations, adjacent to the M4 [APP-190 to APP-209]:
- Sindlesham, adjacent to B3030 (Drawing 6.15a);
  - Emmbrook, adjacent to A329 (Drawing 6.15b);
  - Dorney Reach, closest property to the M4 to the south (Drawing 6.10a);
  - Lake End, closest property to the M4 to the south (Drawing 6.10);
  - Slough, Chalvey, around junction 6 (Drawings 6.11b and 6.11c);
  - Slough, Winvale, adjacent to A332 (Drawing 6.11d); and
  - Hounslow, adjacent to M4 and A4 (Drawings 6.18a, 6.18b and 6.18c).
- 5.7.37 The Applicant's assessment of the significance of the results of the air quality assessment is set out in Table 6.22 [APP-146]. It is accepted that annual average concentrations of NO<sub>2</sub> exceed the objective in the opening year in some locations, but all changes are considered to be imperceptible, small or medium in magnitude.
- 5.7.38 It is recognised that there is a risk that in the year of opening (2022) some locations will still be above relevant air quality objectives including: Sindlesham, Emmbrook, Dorney Reach, Lake End, Chalvey, Upton, Harlington, Brentford and Chiswick.
- 5.7.39 There are 11 sensitive receptors (residential properties) predicted to experience a detrimental change of >1% of the limit value (but less than 5%) that exceed the annual average air quality objective. There are 7 sensitive receptors predicted to experience a detrimental change of >5% (but less than 10%) of the limit value that exceed the annual average air quality objective. No sensitive receptors are predicted to experience a change in annual average pollutant concentrations of >10% of the limit value.
- 5.7.40 The number of affected properties identified above the objective is below both the upper and lower thresholds specified in IAN 174/13, and therefore the Applicant reaches the conclusion that there would be no significant effect on air quality as a result of the operation of the proposed development.
- 5.7.41 The level of emissions of NO<sub>2</sub> is expected to decrease as new Euro 6/VI vehicles enter the fleet. The Applicant does not therefore

anticipate that the effects of the proposed development would last for a long time as the largest change in pollutant concentrations predicted with the proposed development is  $+2.6\mu\text{g}/\text{m}^3$ .

- 5.7.42 As a sensitivity test of the results in the ES, the Applicant undertook a later review to assess the proposed development using the methodology set out in IAN 185/15. The review utilising the approach in the newer IAN provides results that are lower in terms of overall numbers of properties affected when included in an evaluation of significance. This would support the Applicant's submission that a worst case has been effectively considered. However, the Applicant does not rely on this later assessment [REP7-019, Appendix D].

#### *Compliance risk assessment*

- 5.7.43 The results of the local air quality operational assessment are used to determine compliance risks with the EU AQD, following guidance set out within IAN 175/13.
- 5.7.44 There is one affected link (the A4) within the study area, in the Greater London Urban Area, that is reported by Defra as non-compliant in 2020, which is also predicted to be non-compliant when projected to 2022. The Defra report does not take into account any effects from the proposed development. The receptor with the highest predicted annual average  $\text{NO}_2$  concentration with the proposed development in place is receptor N353 ( $52.7\mu\text{g}/\text{m}^3$ ). The predicted increase in annual average  $\text{NO}_2$  concentrations is  $+0.3\mu\text{g}/\text{m}^3$  at this receptor. This is also the largest predicted increase at a receptor along this link.
- 5.7.45 However, the magnitude of change is less than 1% of the limit value for  $\text{NO}_2$ . As a result the Applicant concludes that the proposed development would not result in a compliant zone becoming non-compliant, nor would it delay Defra's date for achieving compliance or increase the road length predicted to be in exceedance.
- 5.7.46 The Applicant's conclusion would indicate that the proposed development is at low risk of non-compliance with the EU AQD.

#### **ISSUES ARISING**

- 5.7.47 The impacts of the project on ambient air quality are a matter of critical concern to those councils in which the AQMAs are located, and to a number of IPs. The representations received coincide with the recent Supreme Court ruling and the position of the UK Government which is currently subject to infraction procedures for breaching the EU AQD. These matters, combined with ongoing uncertainties regarding emission levels from diesel vehicles serve to affirm our position that changes in ambient air quality which might result from the operation of the project is a principal issue for the Examination [PD-004].
- 5.7.48 We identify the key issues to be:



- the potential for uncertainties in modelling in both traffic forecasting and air quality assessment;
- the significance of the impacts of the proposed development on air quality within the AQMAs;
- implications of any uncertainties for the health of the surrounding populations; and
- whether there is justification for a requirement in the DCO to deal with air quality monitoring and management.

### **Uncertainties in air quality modelling**

- 5.7.49 We accept that the Applicant has applied best practice in its air quality assessment as set out in DMRB and associated IANs, and supplemented where relevant with Defra local air quality management guidance and tools. The DMRB guidance adopts a conservative approach to forecasting and seeks to account for uncertainty. As such the Applicant urges confidence in the conclusion that the proposed development would have no significant impact on air quality [REP7-019].
- 5.7.50 In addition, the future projections for the proposed development are consistent with, or go beyond, the requirements of the NPSNN, and in particular paragraphs 5.7 to 5.9 inclusive, which refer to the use of Defra projections for future air quality within an ES.
- 5.7.51 Nevertheless, we accept the concern identified on behalf of SBC [REP4-034] of the potential for uncertainty in the air quality baseline assessment. Uncertainties would compound as the modelling chain proceeds from traffic assessment and forecasting, through emissions calculations, through dispersion modelling and finally the future year forecasting of air quality.
- 5.7.52 The Applicant accepts that all assessments of air quality which consider the future situations will inherently include a measure of uncertainty [REP7-019]. We recognise that the assessment for the project seeks to address the potential for uncertainty through the use of the LTT<sub>E6</sub> future projection curve, which is more conservative than the Defra projections for future air quality.
- 5.7.53 However, as SBC states, Slough's most exposed receptors are forecast by the Applicant to experience levels of NO<sub>2</sub> very close to the annual mean UK air quality objective. The UK objective is the same as the EU Limit Value, being set at 40µg/m<sup>3</sup> as an annual mean. This means that even slight uncertainty in the projected levels in 2022 could cause exceedances of the standards where levels forecast for the proposed development are shown to be below the standard. If uncertainties in the assessment were, for example, in the order of 10% of the standard being assessed, this would equate to 4µg/m<sup>3</sup> of NO<sub>2</sub>. In that case the proposed development would be operating in a quite different air quality environment.

### **Traffic forecasting**

- 5.7.54 The environmental assessments for the proposed development, including the assessment of air quality, rely on the outcome of the traffic modelling. We discuss the Applicant's traffic forecast in Section 5.2 of this report. The potential sources of uncertainty are identified, and we note that the Applicant takes steps to deal with them throughout the modelling process. However, it is inherent in forecasting that there will remain an element of uncertainty.
- 5.7.55 The interface between the traffic models and the air quality models was discussed extensively at the second ISH on the Environment (10-11 February 2016) [EV-016 to EV-022]. We consider that uncertainties which occur through the interface have the potential to affect the air quality assessment.

*Future emissions rates in real life driving conditions*

- 5.7.56 To account for the uncertainty in future Euro 6/VI performance, a precautionary approach is applied by the Applicant through the adoption of  $LTT_{E6}$ . Prof Laxen for LBHill points out there are a number of judgements to be made by the air quality experts as to which projections should be used when modelling air quality [REP4-039]. As the Council suggests, an uplift of 50% applied to the Euro 6/VI emissions would give a different outcome [REP7-188].
- 5.7.57 However, the Applicant states that the air quality assessment is based on the assumptions set out in IAN 170/12 v3. The use of the IAN 170/12 v3 assumptions does in effect predict greater  $NO_2$  concentrations at receptor locations than those which would be predicted as a result of uplifting the Euro 6/VI vehicle  $NO_x$  emissions by 50% [EV-016 to EV-022]. A sensitivity test was therefore not considered necessary for  $NO_2$ , and would lead to a prediction of lesser impacts than currently reported for the proposed development [REP4-001.2].
- 5.7.58 Dr Hamilton for SBC argues that the  $LTT_{E6}$  method could underestimate the levels of  $NO_2$  [REP4-034.1]. However, the Applicant considers that Dr Hamilton's calculations used the previous LTT curve which was in use before updates to the method were made to incorporate information on the Euro 6/VI technology [REP5-003.7].
- 5.7.59 There was no agreement between the experts representing the Applicant and the local authorities on the most appropriate predictions and methods to be used in predicting future rates of improvement in emissions. The Applicant maintains that the  $LTT_{E6}$  is the most appropriate projection curve to be used in assessing air quality for the proposed development [REP8-004]. The Councils' experts hold the view that this approach produces predictions which are overly optimistic. As a result they argue that there is no guarantee that the proposed development would not raise the annual average concentration of  $NO_2$  in their boroughs above the limit value [REP7-188 and REP8-004].

- 5.7.60 We agree with the Councils that the issue of real world driving emissions (RDE) could have potential effects on the predicted air quality impacts from the proposed development [REP4-031, REP4-034 and REP4-035]. Levels of uncertainty as to the standards which have been achieved are underlined by the revelations concerning the use of defeat devices during laboratory testing of vehicle emissions. In the Technical Report which accompanies the Defra air quality document [REP5-004.10], the performance of vehicle emissions standards is described and a scenario is modelled where the RDEs are five times the estimated test emissions.
- 5.7.61 Evidence indicates that Euro 6/VI diesel vehicles in Europe greatly exceed their NO<sub>x</sub> emissions standards [REP4-034]. Dr Hamilton refers to a report by Vincente Franco et al, International Council on Clean Transportation (ICCT), 2014 in which it is stated that "*the average on-road emission levels of NO<sub>x</sub> were estimated at 7 times the certified emission limit for Euro 6/VI Vehicles.*" SBC advises that a cautionary approach should be taken in the estimation of future NO<sub>x</sub> emissions from diesel vehicles which are forecast to make up over half the fleet in the UK when the proposed development is predicted to open in 2022.
- 5.7.62 In response to our questions at the environment ISH [EV-028], the Applicant tested the effect of an uplift of 5 times and 7 times in NO<sub>x</sub> European Vehicle Emission Standard of 80mg/km for Euro 6 Diesel Cars, and a 50% uplift compared to the Emission Factor Toolkit (EFT) in all Euro 6/VI NO<sub>x</sub> emissions for all vehicle types. The Applicant's findings are set out in its summary of the hearing [REP7-019].
- 5.7.63 On the basis of average traffic conditions on the M4 between junctions 3 and 12 in 2022, the results indicate that NO<sub>2</sub> concentrations based on LTT<sub>E6</sub> are comparable with the 50% and 5x emissions scenarios, and NO<sub>2</sub> concentrations based on the 7x emissions scenario are only slightly higher than LTT<sub>E6</sub>.
- 5.7.64 As the Applicant states, the modelled NO<sub>2</sub> concentrations have not been verified and are used only to illustrate the relative impact of the different emission scenarios on future levels of NO<sub>2</sub>. A consideration of the relative changes between each emission scenario has been used to provide an indicative interpretation of the outcome of the presented air quality concentrations in the ES. In these circumstances, we do not place significant weight on the reliability of these calculations
- 5.7.65 LBHill takes the position that, until it is established that the new Euro 6/VI vehicles are delivering the expected low emissions in real world driving conditions, there could not be confidence in the levels of NO<sub>2</sub> predicted in the air quality forecasts [EV-016 to EV-022].
- 5.7.66 In the context of the continuing uncertainty as to the actual level of emissions that Euro 6/VI vehicles will achieve in real world driving conditions, we consider it prudent to agree with the local authorities.

An element of uncertainty remains in relation to the figures to be used for Euro 6/VI emissions in the Applicant's air quality assessment.

### **Significance of the effect of the proposed development within the AQMAs**

- 5.7.67 The Applicant's definition of significance is based on the advice in IAN174/13 where imperceptible is defined as less than or equal to 1% of the objective. A change in the concentration of NO<sub>2</sub> of less than 0.4µg/m<sup>3</sup> is considered so small as to be considered imperceptible against a target of 40µg/m<sup>3</sup>. The Applicant's case rests on the proposition that a change that is imperceptible, given normal bounds of variation, would not be capable of having a direct effect on air quality that could be considered to be significant [APP-146].
- 5.7.68 The advice in IAN 174/13 is considered by LBHill to be out of date in its approach to levels of significance. Guidance on describing significance of impacts has been updated in recent Environmental Protection UK (EPUK)/ Institute of Air Quality Management (IAQM) guidance. This effectively halves the criterion used to describe impacts as negligible from the previous 0.4µg/m<sup>3</sup> to 0.2µg/m<sup>3</sup> [REP4-039] and therefore dictates a more precautionary approach to the assessment of significance.
- 5.7.69 Although IAQM guidance is not intended to replace the more formal guidance of HE in its advice notes, the new guidance does represent the views of the organisation (IAQM) that represents air quality professionals. LBHill points out that it should also be noted that the views of the IAQM informed the HE guidance in IAN 174/13 on page 15 under the heading *Imperceptible* [REP4-039].
- 5.7.70 Since there are indications that expert views on the definition of significance are changing, we consider that there is some question as to the weight which should be attributed to the advice in IAN 174/13 regarding levels of significance. That in turn calls into question the interpretation of the Applicant's air quality assessment in relation to the effect within the AQMAs where NO<sub>2</sub> levels would be above the objective value.
- 5.7.71 The Hillingdon AQMA includes the whole of the area through which the M4 passes within the borough. There are residential communities and a school within close proximity of the motorway. LBHill states that the current air quality monitoring in these areas indicates levels far in excess of the air quality objectives [REP4-039], and it is accepted by the Applicant that the motorway is the local source of the higher concentrations experienced at the London Hillingdon Automatic Urban and Rural Network (AURN) site [REP3-017.1]. Monitoring data at the AURN site shows no trend up or down over the last 7 years [REP7-025].
- 5.7.72 As the Hillingdon AQMA encompasses a wider area than just the M4 corridor, LBHill accepts that the proposed development would not

trigger the requirement for declaration of a new AQMA or alter the size of the current AQMA. However, as LBHill states and we agree, if the improvements predicted by the Applicant are not realised then the proposed development would make it harder to achieve compliance with the air quality objective. As the M4 is the key source of the exceedances in the area of interest, any measures would need to be delivered by the Applicant. So rather than contributing to achieving compliance, which LB Hill would expect the Applicant to do in discharging its requirement to help the Council develop its AQAP, it would be making the compliance harder to achieve. This would not be in accordance with the NPPF in relation to national air quality objectives.

- 5.7.73 For SBC, it is argued that changes as little as 1% can be deemed to be moderately significant in an AQMA [REP8-004]. All of the AQMAs within SBC have been declared due to breach the national air quality objective for annual concentration of NO<sub>2</sub>. The principal cause of poor air quality within AQMA 1 along sections it shares with the M4 is road traffic [REP4-034.1 Table 1]. All receptors are shown to experience breaches in the NO<sub>2</sub> objective concentration with seven of them showing five year annual averages in the range of 40.3 - 44.5µg/m<sup>3</sup>.
- 5.7.74 Residents within the LBHo AQMA are also assessed as experiencing NO<sub>2</sub> concentrations well above the EU limit value. LBHo does not have confidence in the assumptions and data used in the air quality modelling as it considers that the assessment heavily under-predicts NO<sub>2</sub> concentrations compared with the monitored data [REP2-055].
- 5.7.75 SBDC and BCC have an AQMA designated along the existing M4 corridor because of the likely breach of the NO<sub>2</sub> annual mean objective at residential properties in close proximity to the motorway [REP2-050]. There is therefore a sensitivity to any additional pollutant burden and the Councils request that measures to reduce the impact on air quality, including emerging mitigation techniques, should be considered.
- 5.7.76 The RBWM has an AQMA and states that NO<sub>2</sub> concentrations near the M4 are the highest within the borough [REP2-030]. BFC also states that the proposed development might have negative impacts in its area [REP2-014].
- 5.7.77 The Applicant has undertaken a compliance risk assessment in accordance with IAN 173/13, and concluded that the proposed development is at low risk of non-compliance with the EU Air Quality Directive. Based on the Applicant's assessment, the increase for the receptor with the highest predicted annual average NO<sub>2</sub> concentration with the proposed development in place would be less than 1% of the limit value.
- 5.7.78 We do not question the integrity of the Applicant's assessment of the air quality effect and its compliance risk assessment. However, we do identify the potential for inaccuracies in the forecasting. Furthermore,

we accept the submissions of the Councils that the definition of significance adopted by the Applicant is potentially out of date and may not exercise sufficient precaution in the context of the uncertainties that we have identified. As a result, we share the concerns expressed by the Councils as to the impact of the proposed development on their ability to comply with air quality objectives within the AQMAs as the proposed development opens in 2022.

### **The health of the surrounding populations**

- 5.7.79 We consider the detailed and wider effects of the proposed development on health in Section 5.11 of this report. The impact of poor air quality on health is a major issue for many local authorities and IPs.
- 5.7.80 Significant numbers of people live, work and enjoy recreation in areas adjacent to the M4 in which the national and EU objective for the annual mean concentration of NO<sub>2</sub> is already exceeded [REP4-034, REP4-039]. Public Health England (PHE) states that, taking into account the EU air quality standards and recent advice from COMEAP<sup>59</sup>, it considers that any increase in NO<sub>2</sub> in these areas should be viewed as undesirable and avoided if practicable [REP4-029].
- 5.7.81 PHE advises that consideration should be given to the need to ensure that local overall air quality is not worsened as a result of the proposed development and encourages opportunities to secure improvements in local air quality related to this development, particularly in areas designated as AQMAs, if practicable and cost effective [REP4-029].
- 5.7.82 The primary purpose of the EU AQD is to set limits to the levels of NO<sub>2</sub> and PM<sub>10</sub> for the protection of human health. The M4 passes through built up areas with high residential populations which have been declared as AQMAs and in which the EU objective for the annual mean concentration of NO<sub>2</sub> is already exceeded. In these circumstances, and having regard to the issues relating to uncertainty in the traffic forecasting which is used as a basis for the air quality assessment, and the questions raised as to the future level of RDEs from Euro 6/VI vehicles, we consider that there is a risk that the effects of the proposed development may exceed the Applicant's forecast levels of NO<sub>2</sub>, with a consequent risk to health.

### **Air quality monitoring and management**

- 5.7.83 It is the Applicant's position that the air quality assessments it has undertaken and reported in the ES provide evidence that the proposed development will not have a significant air quality impact, nor will it affect the UK's reported ability to comply with the AQD. Therefore it asserts that the assessment for the proposed development is

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<sup>59</sup> COMEAP Statement on the Evidence for the Effects of Nitrogen Dioxide on Health  
Report to the Secretary of State for Transport  
M4 Junction 3 to 12 Smart Motorway

consistent with the requirements of the NPSNN and accordingly monitoring and mitigation for the proposed development is not required. To impose it would be unnecessarily to burden the proposed development where policy simply does not require such an intervention [REP6-18, REP8-005].

5.7.84 In the Knutsford to Bowdon Improvement Development Consent Order 2014 (A556), appropriate mitigation and air quality monitoring was provided because the assessment indicated that without mitigation the proposed development impacts would be significant [REP8-005].

5.7.85 We accept that the Applicant has undertaken its assessment in accordance with published guidance and best practice. Furthermore, the Applicant makes allowance for Euro 6/VI emissions not performing in line with Defra's published EFT. Therefore in terms of vehicle emissions, the assessment takes a more precautionary approach than that required in the NPSNN paragraph 5.8 which requires assessments to be consistent with Defra's future national projections of air quality. We have identified our reasons why we consider that the definition of imperceptible adopted by the Applicant may not be precautionary.

5.7.86 Nevertheless, our interrogation of the traffic forecasts, which we report in Section 5.2, leads us to conclude that there are uncertainties in the process which are likely to lead to some unreliability in the outcomes. The assessment of traffic flows is the first stage in the modelling chain. We have also considered the issues around the future RDE from Euro 6/VI vehicles. In the current context of uncertainty on this matter, the emissions calculations cannot be regarded as secure, whereas, compliance with the AQD is an absolute requirement within the timeframe now given by the Defra plan response to the Supreme Court judgement.

5.7.87 We do not explore the other stages in the modelling process. However, the M4 Smart Motorway is a proposed development which passes through highly sensitive areas which already experience levels of NO<sub>2</sub> in excess of the EU limits, with consequent potential for impacts on the health of the population. In these circumstances we consider that there is sufficient reason to take a prudent and cautionary approach.

5.7.88 We consider that such an approach would be in accord with the provisions of the Applicant's licence [REP4-005.4] which are set out in Chapter 3 of this report. HE is required to minimise the environmental impacts of the network, and provide for:

*"sufficient flexibility and future-proofing in planning the long-term development and improvement of the network, taking account of long-term trends, uncertainties and risks - including new and emerging technologies and long-term trends in climate and weather conditions".*

5.7.89 HE is looking to improve air quality across the SRN and as part of the National Air Quality Monitoring Network, it is currently envisaged that

an automatic monitor will be installed between Junction 11 and Junction 12 of the M4, which is part of the proposed development [REP4-001.1].

- 5.7.90 However, we are not convinced that this would provide sufficient data to assess whether the forecast effects of the proposed development on air quality are met once it is in operation.
- 5.7.91 In order to provide a way forward for how we see these deficiencies being overcome, we drafted a requirement covering air quality and sought comments on this during the Examination [PD-011]. The draft requirement is the subject of comment from a number of parties, with support in particular from the local authorities (LBHill [REP8-112], RBWM [AS-026], WBC [AS-049], SBC [REP4-034]) and other IPs (PHE [REP4-029] and CBT [REP8-119]). An objection in principle to any such requirement is maintained by the Applicant.
- 5.7.92 Furthermore, the Applicant maintains that mitigation measures are not proven. However, speed restriction measures on the A556 project have recently been proposed, albeit under different conditions [REP7-017]. Since the Applicant claims that there is no requirement to consider mitigation in this case, no proposals are made. However, measures are put forward by LBHill [REP4-039] and SBC [REP4-034.8] including examples where barriers have been installed. We are satisfied that if, as a result of the monitoring, a mitigation strategy is necessary then there are various options open to the Applicant to consider.
- 5.7.93 Nevertheless, having taken into account the views of the parties, we included an amended version in our draft of the DCO [PD-014]. The intent of the requirement would be:
- to monitor the actual concentrations of NO<sub>2</sub> within the AQMAs along the motorway to validate the outputs from the modelling. If this monitoring confirms that the proposed development does not increase the concentrations predicted by the modelling, then no further action would be required;
  - if it is found that the proposed development has materially worsened air quality such that there are exceedances of national air quality objectives or EU Limit Values then a scheme of mitigation, together with a programme for its implementation, must be prepared in consultation with the relevant local authorities.
- 5.7.94 The Applicant maintains its position that there are no significant impacts predicted in the air quality assessment of the proposed development and it therefore does not consider that a specific monitoring strategy for the proposed development is required [REP5-004.1]. Furthermore, it considers that a requirement for a monitoring



strategy would not be necessary, proportionate or appropriate and would not comply with the relevant tests under Circular 11/95<sup>60</sup>.

- 5.7.95 Issues are raised by the Applicant concerning the feasibility of undertaking monitoring which could separate out the impacts of the proposed development from contributions such as industrial and power emissions [REP5-005.5, EV-028]. However, such monitoring is required and accepted by HE in the A556 project, and there is scope for the resolution of this matter in the drafting of the air quality requirement which we recommend in the DCO. The Applicant also argues that, even if it were possible in practical terms to put monitoring stations on the M4, it would be inappropriate for HE to spend time, resources and money in a case where the assessments indicate no significant effect.
- 5.7.96 The recommended requirement limits the extent of monitoring to those locations most at risk of exceeding air quality objectives. In our opinion the potential for a higher level of emissions in these locations and the consequences for the health of the local population outweigh the potential cost and inconvenience to the Applicant.
- 5.7.97 The Applicant further states that such provision for the proposed development would set a precedent for other schemes where the assessment indicates that there is no significant effect, with a consequent waste of public money. However, since each case must be considered on its merits, and in view of the particular circumstances of this case, we do not accept that any precedent would be set.
- 5.7.98 The HE Strategic Business Plan and its Delivery Plan include a commitment to support improvements to the environment, where it is feasible. However, this is a strategic exercise which would look at priorities across the national network. There is no guarantee that action would be taken to monitor the proposed development as a priority within that strategy. Furthermore, the strategy would not secure mitigation in the event that there was deterioration in air quality levels as a result of the proposed development.
- 5.7.99 We have taken into account the comments which the Applicant makes on the draft requirement which we published in our draft DCO [PD-014, REP8-005]. We consider the Applicant's drafting points, and comments and suggestions submitted by LBHill [REP8-122] and SBC [REP7-175]. We have made some minor amendments to the wording of the requirement to achieve a precise and enforceable form of words which would achieve the aims which we have identified above, and set out our reasons in Chapter 8 of the report for the drafting now put forward in the recommended DCO.

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<sup>60</sup> This is the Applicant's submission. Circular 11/95 is no longer extant and the advice in the National Planning Practice Guidance is now applied.

## **SUMMARY AND CONCLUSIONS**

- 5.7.100 In relation to the construction impacts of the proposed development, as stated in the NPSNN, some impact on amenity for local communities is likely to be unavoidable, but should be kept to a minimum and should be at a level which is acceptable. We are satisfied that adequate mitigation would be achieved through the CEMP and CTMP as secured through Requirements 8 and 18.
- 5.7.101 The CEMP and CTMP have been further developed in the course of the Examination, and are subject to the final approval of the SoS. Consultation with the relevant local authorities is required prior to the submission of the plans to the SoS, so the local authorities retain an influence on their provisions. We are satisfied that through this process the impacts on local communities during construction would be minimised.
- 5.7.102 We accept that the Applicant has undertaken its assessment of air quality impacts in accordance with published guidance and best practice. However, we have set out reasons why we find that there is the potential for the forecasts of operational effects to be less than certain. We also identify our reasons why we consider that a precautionary approach should be adopted in this case having regard in particular to developing methodology. There are large numbers of households and community uses which lie close to the M4 and within the AQMAs. Any significant increase in the levels of NO<sub>2</sub> over and above the standards set out in the EU AQD would be a risk to the health of those who live and work within these areas.
- 5.7.103 We recommend therefore that a monitoring strategy is implemented to validate the Applicant's assessment. If this demonstrates that the levels of concentrations are being met, it would give reassurance to the local authorities and IPs that no detrimental impacts are caused by the proposed development. In such a scenario, no further mitigation would be required.
- 5.7.104 The recommended requirement provides for the monitoring strategy to be agreed between the Applicant and the local authorities. The results of the monitoring would be subject to review by a firm of air quality experts appointed by the undertaker in consultation with the local authorities. If any such review indicates that on the balance of probabilities the authorised development has materially worsened air quality such that there is a breach of national air quality objectives, a mitigation strategy would be agreed and be implemented. This could include traffic management measures or the installation of physical measures, by the Applicant and by the local authorities as part of their AQMA duties.
- 5.7.105 We consider that our identification of the risk associated with uncertainties in air quality forecasting fulfils the requirement in paragraph 5.9 of the NPSNN. The recommended requirement would ensure that the risk is managed in an area where air quality

considerations are identified in paragraph 5.11 as being particularly relevant. Through the imposition of the requirement, we are satisfied that the proposed development would then meet the requirements of paragraph 5.13. Furthermore, we are satisfied that with the requirement in the DCO, it would contribute to securing compliance with EU limit values within the relevant AQMAs in accordance with Defra's Air Quality Plan, and help safeguard against any harmful impacts on human health.

## **5.8 WATER ENVIRONMENT AND FLOOD RISKS**

### **POLICY BACKGROUND**

- 5.8.1 Water quality and resources matters are covered in the NPSNN at paragraphs 5.219 to 5.231. The NPSNN recognises at paragraph 5.219 that, during construction and operation, projects can lead to increased demand for water, and discharges of pollutants to water causing adverse ecological impacts. There may also be an increased risk of spills and leaks of pollutants to the water environment. In turn, these could compromise environmental objectives established under the WFD<sup>61</sup>.
- 5.8.2 Activities that discharge to the water environment are subject to pollution control. For this reason, decisions under the PA2008 should complement but not duplicate those taken under the relevant pollution control regime (paragraph 4.50).
- 5.8.3 Flood risk is covered in NPSNN in paragraphs 5.90-5.115. An FRA should be carried out if the application is in Flood Zones 2 and 3 (medium and high probability of river and sea flooding) and in Flood Zone 1 (low probability for projects of 1ha or greater (paragraph 5.92). In paragraph 5.95, it is stated that further guidance can be found in NPPF planning guidance.
- 5.8.4 The NPSNN in paragraphs 5.98 to 5.108 states that the SoS should be satisfied that where flood risk is a factor in determining an application for development consent, the applicant should apply the Sequential Test as part of site selection and, if required, the Exception Test. In accordance with the NPPF, paragraphs 100 to 104, the applicant must also demonstrate that the proposed development will be safe from flooding for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, to show reduction of flood risk overall.
- 5.8.5 Further it states at paragraph 5.109 that "*any project that is classified as 'essential infrastructure' and proposed to be located in Flood Zone 3a or b should be designed and constructed to remain operational and*

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<sup>61</sup> Water Framework Directive (2000/60/EC)

*safe for users in times of flood; and any project in Zone 3b should result in no net loss of floodplain storage and not impede water flows".*

- 5.8.6 The NPSNN states that the volume and peak flow rates of surface water leaving the site once the project has been implemented should be no greater than the volume and peak flow rates prior to the implementation of the scheme. In the event that they would be greater, specific off-site arrangements should be made in order to result in the same net effect (paragraph 5.113).

### **APPLICANT'S APPROACH**

- 5.8.7 ES Chapter 15: *Road Drainage and the Water Environment* [APP-155], together with the appendices [APP-355], assesses the impacts of the proposed development on road drainage and the water environment during construction and operation, focussing on the effects of highway drainage on the quality and hydrology of receiving waters. ES Chapter 10: *Geology and Soils*, assesses the impacts on ground water resources during construction and operation [APP-150]. A DSR is also provided [APP-123].
- 5.8.8 The methodology used is that set out in the DMRB Volume 11, Section 3, Part 10 (HD 45/09) and Volume 4, Section 2, Part 3 (HD 33/06). HD 45/09 gives guidance on assessing impacts on the water environment in terms of water quantity and quality, while HD 33/06 gives guidance on the drainage of trunk roads including motorways.
- 5.8.9 Chapter 15 of the ES assesses four principal impacts:
- effects of routine runoff on groundwater;
  - effects of routine runoff on surface water bodies;
  - pollution impacts from spillages; and
  - flood impacts.
- 5.8.10 The Applicant details the location-specific considerations and describes effects for each link of the proposed development to assess specific residual effects. Cumulative effects are then discussed. The key water receptors and their importance/value are identified in Table 15.11 [APP-155].
- 5.8.11 The following documents were submitted with the ES and were updated during the Examination:
- Drainage Strategy Report: focuses on the management of surface water runoff [REP5-002.18]; and
  - Flood Risk Assessment: identifies potential sources of flood risk in relation to the proposed development [REP7-152].
- 5.8.12 A Water Framework Directive Compliance Assessment (WFDCA) is undertaken by the Applicant [APP-134 and APP-135]. The relevant components of the proposed development to the WFD objectives are Thames Bray underbridge, Ashley Arch culvert and Chalvey Ditch culvert. The Applicant states that the review of these components

against WFD elements found no indication that further assessment is required and that the proposed development is compliant with the objectives of the WFD, provided that appropriate mitigation measures are implemented prior to and during construction.

### **Existing conditions**

#### *Groundwater*

- 5.8.13 The groundwater conditions are assessed by identifying the existence of aquifers and Source Protection Zones (SPZ) in the study area, and then assessing the impacts upon them from the proposed development [APP-155].
- 5.8.14 The proposed development is located within a Surface Water Safeguard Zone where the use of certain substances must be managed to prevent the pollution of raw water sources which are used to provide drinking water. The zones are safeguarded for pesticides. The Applicant states that the proposed development is not located within a Groundwater Water Safeguard Zone or a Water Protection Zone.
- 5.8.15 The Thames River Basin Management Plan (Thames RBMP) classifies groundwater bodies within the Thames River Basin District (Thames RBD). Each groundwater body has quantitative and chemical components representing its overall status. The study area overlies three groundwater bodies; the Berkshire Downs Chalk, Thatcham Tertiaries, and Twyford Tertiaries.
- 5.8.16 The Applicant states that all the groundwater bodies are considered to be at risk of failing their environmental objectives for groundwater quality and that all the groundwater bodies have poor quantitative quality. The status of groundwater quality along the M4 corridor is described in the ES Chapter 15 at Table 15.10 [APP-155].

#### *Surface water*

- 5.8.17 Over 60 watercourses are identified which pass under the M4 [APP-282]. Those watercourses, which are monitored under the Thames RBMP, have defined WFD classifications on the EA website, or which are named on OS maps, are listed by the Applicant in the ES in Table 15.6 [APP-155].
- 5.8.18 The water quality of surface water resources in the study area is summarised in the ES, Table 15.9 [APP-155]. All of the surface watercourses and lakes classified under the WFD along the proposed development are identified as being 'at risk' of failing to meet 'Good' status by 2015.
- 5.8.19 Of all the water bodies classified under the WFD, only the Kennet and Avon Canal and the Ameys Lake or Theale Lakes are considered to have current ecological quality of 'Good Potential'. The Colne and

Grand Union Canal and River Loddon fail in terms of current chemical status.

- 5.8.20 There are 62 water abstraction points located within 500m of the proposed development. There could potentially be significant effects from the proposed development on the abstraction points (in terms of water quantity and quality), so an assessment of the proposed development's effect on abstraction points would be required.
- 5.8.21 There are 12 water discharge consents located within 500m of the proposed development [APP-155]. Discharges would only be likely to be impacted by the proposed development if the associated infrastructure is affected.

#### *Drainage*

- 5.8.22 The existing highway drainage along the M4 comprises kerbs and gullies which divert surface water runoff into the surface water drainage system. The central reserve drainage consists mainly of a filter drain system. The majority of highway runoff is discharged through outfalls to watercourses. However, in some areas there are also soakaways to groundwater [APP-155].
- 5.8.23 There are unnamed surface water drains and ditches crossing the M4 which are likely to receive local drainage from the watercourses. The Applicant assesses the unnamed watercourses as part of the catchment wide assessment as a single receptor and proposes to put appropriate measures in place to ensure no deterioration of the water bodies.
- 5.8.24 In the Applicant's assessment it is assumed that the existing drainage system is sufficient for the existing M4. For the areas where blocked drainage causes surface water flooding, the maintenance/repair or substitution/replacement of the systems would be capable of providing a functioning system. There is no reason to believe that the existing system cannot be rendered wholly effective and therefore the Applicant concludes that this provides a reasonable worst case baseline scenario.
- 5.8.25 No new discharges or outfalls are proposed as a result of the proposed development and the M4 would continue to discharge as it does now. The discharges from the proposed development would utilise the existing surface water discharges from the M4.
- 5.8.26 In the Applicant's DSR [REP5-002.18] mitigation measures are identified to manage the additional runoff from the increased impermeable area.

#### *Flooding*

- 5.8.27 The potential sources of flooding for the proposed development are heavy rain, rivers, surface water, groundwater, sewers and artificial/man-made sources like reservoirs and canals. Tidal flooding is

discounted by the Applicant from the assessment due to the proposed development being upstream of the tidal limit of the River Thames, and at no risk of flooding from this source [APP-155].

- 5.8.28 Regarding the fluvial flood risk, the proposed development crosses a number of floodplains classified as Flood Zone 2 and Flood Zone 3, which are summarised in Table 15.8 [APP-155] and detailed on Drawing 15.1 [APP-282]. Small sections of the proposed development are at risk from artificial sources such as reservoir flooding.

### **Construction phase**

- 5.8.29 The construction works would occur near to and within watercourses, abstraction points and surface water features and would involve works to the drainage network. These have the potential to provide a pathway for pollutants to reach watercourses and surface water features. Additional hazards arising from construction activities include accidental release of floatable material and loss of material during storm events from surface water runoff. There is also a higher risk of entraining fine sediment in runoff, which could increase siltation in the receiving watercourse.
- 5.8.30 Another potential effect is the mobilisation of contamination and migration of pollutants into controlled waters. Sections of the proposed development would be located within a Secondary A Aquifer, which is classified as having high importance [APP-155].
- 5.8.31 According to the Applicant, the CEMP [REP9-002] would document all construction phase mitigation measures to ensure that the quality of the water environment does not deteriorate during construction. These would include a pollution control plan, standard best practices and relevant Pollution Prevention Guidelines (PPGs).
- 5.8.32 There are 62 water abstraction points where impacts could occur on the local water resources and associated infrastructure from plant and access to the works. Method statements would be prepared for works in sensitive locations. These would include details of the particular environmental protection measures to be implemented.
- 5.8.33 Through the CEMP, the contractor would be required to monitor the use of any pesticides and ensure site procedures are in place that promote best construction practice and avoid pollution of the raw water.

### **Operational phase**

- 5.8.34 Potential effects during the operational phase include the contamination of road drainage by spills and leaks of oil and fuel, and by other materials deposited onto the drained surfaces. Contaminated runoff could be released into the surface water environment through this route [APP-155].

- 5.8.35 The final appraisal of Spillage Risk would be carried out during the detailed design phase of the proposed development. Where there would be a significant modification of the drainage system, a Highways Agency Water Risk Assessment Tool (HAWRAT) appraisal would be undertaken for all outfalls affected by the proposed development. This would confirm the environmental risk as a result of the proposed development which would then be dealt with through the design phase to ensure the water quality would not deteriorate compared to the existing situation.
- 5.8.36 The Applicant considers that, as a result of the proposed development, it is expected that congestion and the number of accidents would be reduced, which in turn would reduce the risk of pollution incidents as a result of road accidents [APP-155].
- 5.8.37 The draft of the operational mitigation for the proposed development is included in the design of the drainage arrangements during the preliminary design phase [APP-132 and APP-133]. The Applicant concludes in the ES [APP-155] that the mitigation measures would be specified during the HAWRAT appraisal and would be included in the final design. The management of water runoff would ensure that there would be no significant changes as a result of the existing drainage network and outfalls.

#### **ISSUES ARISING**

- 5.8.38 During the Examination we identified the issues which needed further consideration. These were:
- WFDCA;
  - FRA;
  - Drainage Strategy; and
  - Hydrological Risk Assessment (HyRA).

#### **Water Framework Directive Compliance Assessment**

- 5.8.39 LBHill raises an issue that Frogs Ditch is not included in the Applicant's WFDCA and the assessment should be revised accordingly. The Council has concerns about works to be undertaken adjacent to Frogs Ditch [REP2-060].
- 5.8.40 The EA notes that the WFDCA scopes out a large number of water bodies without providing reasoning for this. In addition the Applicant had not used up to date evidence for the WFDCA. The EA could not be certain that the impacts of the proposed development are adequately assessed [RR-249].
- 5.8.41 We were provided with the clarification by the Applicant that Frogs Ditch would not be culverted or diverted [REP4-001]. The Applicant also confirms that the water bodies scoped out of stage 4 of the WFDCA assessment are those located where no works within or directly adjacent to them are anticipated and these water bodies have



therefore no potential to be directly impacted by the proposed development.

- 5.8.42 The EA in its SoCG [REP5-002.5] states that upon further clarification from the Applicant, including information submitted for Deadline III, it considers the WFDCA to be adequate. LBHill states that it would give further comments when it had received the Applicants revised FRA [REP4-039]. However, by the close of the Examination these comments had not been received.
- 5.8.43 The EA as the statutory authority considers that the WFDCA is adequate. Therefore we have no reason to disagree.

### **Flood Risk Assessment**

- 5.8.44 BCC and SBDC in their joint LIR [REP2-050] confirm that all the land in the Dorney area and the majority of land in the Iver area is included in Flood Risk Zone 2 and Zone 3. It is essential that the impact would be kept to a minimum and that there would be adequate mitigation measures, wherever practicable. BCC at the time of submission of the SoCG [REP3-018] states that it was not agreed with the Applicant that additional assessment of the risk of flooding in areas of hard standing using updated flood maps for surface water would be required. At the close of the Examination we had not received comments from either party on whether this matter had been resolved.
- 5.8.45 The initial representation from the EA raises several issues regarding the adequacy of the FRA [RR-249]. These include demonstration that the level for level compensation is achievable, losses and compensation of floodplain storage are not quantified, downstream impacts are not assessed and the extensions of culverts are not designed appropriately.
- 5.8.46 Discussions were held between the Applicant and relevant IPs during the Examination process, through written submissions, ExA's written questions and during the ISHs. This resulted in the Applicant's various submissions with updates to FRA with its final form at Deadline VII [REP7-152] together with FRA annexes [REP7-153 to REP7-159].
- 5.8.47 The Applicant carried out the Sequential and Exception tests with details contained within the FRA [REP7-152]. The Applicant states that it would not be viable to relocate the works in a zone with a lower probability of flooding owing to the nature of the proposed development. Furthermore, the proposed development would constitute essential transport infrastructure for which there would be no alternative site. We therefore consider that it would accord with paragraph 5.105 of the NPSNN in relation to the Sequential test.
- 5.8.48 In relation to the Exception test, there would be sustainability benefits to the community in terms of, for example, reduced congestion and improved journey times. Furthermore, by the close of the Examination, the Applicant demonstrated that the project would be safe for its lifetime and would, as far as possible, reduce flood risk

overall. We are therefore satisfied that the proposed development would meet the Exception test as set out in paragraph 5.108 of the NPSNN.

- 5.8.49 The EA confirms that it has reviewed the final FRA submitted and is content that it addresses its previous concerns [REP8-121]. The EA states that it now has no objection to the proposed development on fluvial flood risk grounds, subject to the inclusion of the agreed draft DCO requirement wording.
- 5.8.50 The wording of a requirement relating to fluvial flood risk and a floodplain compensation scheme is agreed with the Applicant and is included in the ExA's draft DCO. Requirement 23, *Flood risk*, is discussed in Chapter 8 of this report.
- 5.8.51 It is our opinion that the issues of flood risk and its assessment were resolved at the end of the Examination process by discussion with the EA and several iterations of the FRA. The EA is now content with the FRA and that the flood risk requirement is secured in the DCO. We have no reason to disagree.

### **Drainage Strategy**

- 5.8.52 BCC and SBDC in their jointly submitted LIR [REP2-050] are concerned that the drainage system proposed in the DSR [APP-123] is in the form of conventional, oversized pipes and gullies and suggests that above ground Sustainable Drainage Systems (SuDS) should be considered to provide enhancements to the watercourses and biodiversity. In addition a maintenance plan would be required to set out details on how the full drainage system would be maintained following construction.
- 5.8.53 The Applicant considers that the suggestions by BCC and SBDC with regard to SuDs would not be feasible [REP3-017.7]. The Applicant further noted that all drainage systems which mimic natural catchment processes are considered to be SuDS. The proposed development includes such measures therefore the drainage strategy proposed would employ below ground SuDS techniques [REP5-005.1]. We are satisfied that the Applicant has addressed the issue of further provision of SuDS.
- 5.8.54 The DSR was further refined to address matters raised in particular by LBHill, BCC and EA [REP5-002.18]. LBHill states it is satisfied with the inclusion of the drainage system investigation proposed in the DSR, and further states that any remedial work must be agreed with the Council [REP8-122]. The EA's concern is the effect on the hydraulic connectivity and the capacity of the existing drainage ditch. It states that it is content that the Applicant would fully inspect the ditch during the detailed design stage to ensure that there is sufficient capacity to convey floodwaters and any existing flood or surface water that it may already contain [REP6-023].

- 5.8.55 The DSR was agreed by BCC as the Lead Local Flood Authority apart from the final wording of Requirement 14, *Surface water drainage*. BCC provided suggested wording for Requirement 14, *Surface water drainage* [REP7-180]. The Applicant does not agree that a clause requiring a maintenance plan is necessary [REP8-003]. We agree that the inclusion of this clause would not be justified in view of the requirements of the HE licence. We are satisfied that the DSR contains sufficient information to ensure the drainage of the proposed development is adequate

### **Hydrological Risk Assessment**

- 5.8.56 SEW expresses concerns that the proposed development would have an effect on the SPZ for public water supply [REP2-040]. It states that the proposal includes construction activities in a designated Groundwater Protection Zone and has significant potential risk to public water supplies from its Bray Gravels site, and potentially on nearby Beenhams Heath site.
- 5.8.57 There would be a high risk that the proposed construction works would increase turbidity in the groundwater at the Bray Gravels site to the point that it falls outside the tolerances of its water treatment works and so fails the standards set for drinking water by the Drinking Water Inspectorate. This could prevent SEW from supplying customers' drinking water from one of its largest groundwater sources.
- 5.8.58 SEW reiterates its concerns that the abstractions at Beenhams Heath between Junction 9 and 10 might also be impacted if surface water drainage is modified. SEW requests method statements relating to the Drainage Strategy and a Hydrogeological Risk Assessment including pollution protection measures for groundwater and surface water [REP2-040].
- 5.8.59 During the Examination the Applicant has produced a HyRA to address concerns raised regarding the potential impact of the proposed development proposals, with particular regard to construction activities, on groundwater SPZs located at Beenhams Heath and Bray Gravels [REP5-002.22]. The Applicant agrees in the SoCG with SEW [REP9-039] that the HyRA is a living document and would be updated with hydrogeological data forming a Hydrogeological Risk Assessment.
- 5.8.60 Subject to the matters covered by the SoCG [REP9-039], SEW agreed that the impacts of the proposed development would not have unacceptable effects on its assets. General concerns would be addressed during design and construction stages and during the period immediately following construction. Specific risks to the operations of the SEW would be addressed by implementing agreed mitigation measures [AS-047].
- 5.8.61 In relation to Beenhams Heath site, SEW's concern is primarily the effect of the proposed development on surface water. It is satisfied that the inclusion of SEW as a consultee in Requirement 14, *Surface*

*Water Drainage* addresses this concern [REP9-039]. We discuss this inclusion further in Chapter 8, and include SEW as a consultee.

- 5.8.62 We consider that the matters raised by SEW concerning potential groundwater impacts at Beenhams Heath and Bray Gravels have been examined and agreed and that sufficient mitigation is secured through the DCO.

### **SUMMARY AND CONCLUSIONS**

- 5.8.63 The WFDCA carried out by the Applicant is considered to be adequate by the EA. As the EA is the statutory authority, we have no reason to disagree. We are satisfied that the application meets the tests set out at paragraphs 5.225 to 5.226 of the NPSNN.
- 5.8.64 The final FRA received at the close of the Examination was agreed by the EA. The Agency is also content that the flood risk requirement is secured in the DCO. We are satisfied that the issues regarding fluvial flood risk have been resolved and agreed and meet the tests set out at paragraphs 5.98 to 5.109 of the NPSNN.
- 5.8.65 We are satisfied that the Applicant carried out appropriate tests as set out in the NPSNN, paragraph 5.105 and 5.106 and adequately demonstrated that wider sustainability benefits to the community would be achieved and would outweigh any potential flood risk. We are also satisfied that preparation of the Applicant's assessment within the FRA in terms of the Sequential and Exception tests meets the criteria set out in paragraph 5.94 of the NPSNN and that the compensation areas proposed for the loss of floodplain storage secured in DCO, meet the test of NPSNN at paragraph 5.109.
- 5.8.66 The drainage strategy was agreed with BCC as the Lead Local Flood Authority apart from the final wording of Requirement 14, *Surface water drainage*. We deal with the wording of the requirement in Chapter 8, and find that a maintenance clause would not be justified. We are satisfied that the DSR is adequate.
- 5.8.67 We consider that the impacts on groundwater have been properly considered and agreed with SEW and that sufficient mitigation has been secured in the DCO. The HyRA is agreed with SEW and it is further agreed that it would be updated with hydrogeological data. We are satisfied that the application meets the tests as set out in paragraphs 5.224 to 5.227 of the NPSNN.
- 5.8.68 We are satisfied that the proposed mitigation measures to ensure the quality of the water environment including a pollution control plan, are sufficient and secured in the DCO Requirement 8, *CEMP*. Therefore we are content that the test set out at paragraph 4.50 of the NPSNN is met.
- 5.8.69 Overall we consider that the impacts on the water environment and flood risk have been adequately assessed and the mitigation measures proposed are sufficient. Therefore we are of the opinion that the

application meets the tests set out in the NPSNN and would be in compliance with the WFD.

## **5.9 BIODIVERSITY AND ECOLOGICAL CONSERVATION**

### **POLICY BACKGROUND**

- 5.9.1 The NPSNN states at paragraph 5.23 that the Applicant should show how the project has taken advantage of the opportunities to conserve and enhance biodiversity and geological conservation interests. This echoes the NPPF which sets out the ways that the planning system should enhance the natural and local environment. Matters which should be considered in decision-making are described in paragraphs 5.24 to 5.35 and mitigation in paragraphs 5.36 to 5.38 of the NPSNN. In addition air quality impacts are addressed at paragraphs 5.3 to 5.4 and noise impacts at paragraph 5.187 of the NPSNN.

### **APPLICANT'S APPROACH**

- 5.9.2 The Applicant provides the assessment of potential effects, including noise, during construction and operation on the ecology and nature conservation which may be affected by the proposed development, in Chapter 9: *Ecology and Nature Conservation*, of the ES [APP-149]. Supporting data is provided in Appendix 9.1 [APP-316] together with confidential information on badgers in Appendix 9.2 [APP-322]. The assessment of the potential effects of air quality on designated sites is provided in Chapter 6: *Air Quality*, of the ES [APP-146].
- 5.9.3 The assessment methodology used by the Applicant is based on the guidance from the Institute of Ecology and Environmental Management (IEEM) and in accordance with the DMRB Volume 11, Section 3, Part 4, Ecology and Nature Conservation and IAN 130/10 Ecology and Nature Conservation: Criteria for Impact Assessment.
- 5.9.4 The Applicant produced an outline Environmental Masterplan which was updated during the Examination [REP8-087 to REP8-117].

### **ISSUES ARISING**

- 5.9.5 The EA raises concerns in relation to the assessment of significance of residual effects [RR-249]. We therefore asked if there was any evidence to challenge the conclusions in Table 9.5 [APP-149] which sets out the significance of the residual effect of the proposed development on ecology and nature conservation [PD-005]. NE advises that the conclusions set out in Table 9.5 for both designated sites and protected species appear to be satisfactory [REP2-031].
- 5.9.6 The assessment methodology is prepared according to the DMRB and IAN 130/10 and the sensitivity, magnitude and significance criteria are included in Tables A9.4.1-9.4.4 of Appendix 9.4 [APP-328, REP2-002.3]. The assessment methodology is also agreed in the SoCG with SBC [REP8-004].

5.9.7 Issues identified during the Examination are discussed in the following sub-sections.

### ***Designated Sites***

5.9.8 There are no statutory or non-statutory designated sites that lie within the Order limits. All national and international designated sites are outside the zone of influence and would not be hydrologically connected. Therefore the Applicant anticipates that there will be no effects caused by the proposed development on those sites and that the residual effect would be neutral [APP-149]. As we explain in Section 4.5, there would be no likely significant effects on any European sites.

### ***Statutory and Non Statutory Designated Sites***

5.9.9 The Applicant identifies eight Sites of Special Scientific Interest (SSSI) and eleven Local Nature Reserves (LNR) within a 2km radius of the Order limits. Seven Sites of Importance for Nature Conservation (SINC) and 32 Local Wildlife Sites (LWS) are located within 500m radius from the Order limits [APP-149]. The sites adjacent to the Order limits are shown on Drawing 9.1 [APP-229 to APP-231].

5.9.10 SBC states that it is not clear in the ES what the potential impacts of the proposed development would be on the south-eastern corner of the Herschel Park LNR in relation to proposed works [REP2-047]. In the SoCG with SBC it is agreed that an area of approximately 0.0117ha of permanent land-take from the corner of the LNR would be required, which represents a 0.27% loss of an area which supports grassland, scrub and semi-mature trees [REP8-004]. There is also agreement that the conclusions of the assessment are valid with a minor magnitude of impact and a neutral significance of effect.

5.9.11 The Applicant's assessment predicts that there could be an increase in the annual mean concentration of NO<sub>x</sub> at the Sulham and Tidmarsh Woods and Meadows SSSI, located 20m from the M4 [APP-146]. The Applicant predicts that the NO<sub>x</sub> increase at the point of the site closest to the M4 would be from 29.8µg/m<sup>3</sup> to 30.1µg/m<sup>3</sup> (a difference of 0.3µg/m<sup>3</sup>) which is above the objective for nationally designated sites. However the annual mean NO<sub>x</sub> concentrations within 10m of this receptor location and elsewhere in the site are predicted to drop below the objective value and that "*any change less than 0.4µg/m<sup>3</sup> is considered to be imperceptible*" [APP-149].

5.9.12 NE agrees that the small increase in NO<sub>x</sub> concentrations would affect a small area of the site closest to the M4. NO<sub>x</sub> concentrations fall below the air quality standard within 10m of the motorway. NE considers that the overall residual effect would be neutral [REP2-008]. As NE is the statutory body we accord its views significant weight, and have no reason to find otherwise.

5.9.13 Construction dust which could potentially affect designated sites would be controlled using best practice techniques and these measures are

set out and secured through the outline CEMP [REP9-002]. This method of control is agreed with NE [REP2-008]; therefore we are content that proposed mitigation measures for construction dust are appropriate.

- 5.9.14 In the Table of Mitigation (ToM) it is stated that best practice, pollution prevention and control to mitigate any effects of the proposed development, would be used so the designated sites would not be adversely affected by dust created during construction, storm water runoff or accidental spillages from construction sites [REP7-010]. The measures outlined in the ToM are described in the CEMP and secured in the draft DCO by Requirement 7, *Environmental Management Plan* and Requirement 8, *Construction Environmental Management Plan*.

### ***Conclusions on designated sites***

- 5.9.15 A small part of the Sulham and Tidmarsh Woods and Meadows SSSI would have an increased NO<sub>x</sub> deposition as a result of the proposed development. However NE, as the statutory authority, considers that the overall effect would be neutral. We accord its view strong weight and have no reason to disagree.
- 5.9.16 NE agrees that the draft requirements are appropriate to secure the mitigation as described in the CEMP and secured in the draft DCO by Requirement 7, *Environmental Management Plan* and Requirement 8, *Construction Environmental Management Plan*. We are content that the impacts on designated sites can be mitigated by the measures described and secured in the DCO.

### ***Habitats***

#### ***Ancient Woodlands***

- 5.9.17 A total of 82 areas of Ancient Woodlands are identified within 1km radius from the Order limits. None of these are within the Order limits but nine are immediately adjacent to the site. The Applicant states that no Ancient Woodlands would be lost during the construction phase and the significance of residual effect is considered to be neutral [APP-149].
- 5.9.18 SBDC and BCC identify that Old Wood, which is Ancient Woodland, is located on both sides of the carriageway and have concerns that there could be negative effects if cutting back of trees includes ancient woodland [REP2-050].
- 5.9.19 As no direct loss of Ancient Woodlands is anticipated during construction, targeted mitigation measures are not proposed in the ES. However the ToM for the areas of Ancient Woodlands directly adjacent to the Order limits contains measures to mitigate vegetation removal and accidental incursions into the root protection areas [REP7-010].

### ***Invasive species***

- 5.9.20 Invasive species are identified throughout the Order limits. Giant hogweed, Japanese knotweed and Indian balsam, present within the Order limits, are classified as controlled wastes and therefore require special measures for disposal [APP-149].
- 5.9.21 A pre-construction survey would be undertaken by the appointed contractor to map the exact location of all invasive species and a detailed method statement for control measures would be included in the CEMP [REP9-002]. Following the implementation of the CEMP, the Applicant considers the residual effects from invasive species to be neutral and also states that the proposed development might result in a beneficial effect due to removal of invasive species from working areas [APP-149].
- 5.9.22 The removal or management of invasive species is described in the CEMP and is secured by Requirement 24, *Biodiversity Management Strategy*, in the draft DCO. We are satisfied that this is adequately secured.

### ***Vegetation***

- 5.9.23 The vegetation present within the Order limits, and assessed by the Applicant, is considered to be common and widespread and of no more than a local value [APP-149].
- 5.9.24 LBHill raises concerns about the loss of a "*considerable*" amount of vegetation as a result of the proposed development especially in the area surrounding the Cherry Lane School [REP2-060].
- 5.9.25 However, the Applicant states that the closest point of construction to Cherry Lane School is the Sipson Road subway. The proposed development would result in a "*pocket of vegetation clearance*" to the north-east of the subway. There would be a substantial block of intervening vegetation which would be retained between the proposed development and the school. The pocket of vegetation to be removed would be replaced as part of the mitigation proposals [REP3-017.1].
- 5.9.26 The Applicant aims to ensure that the vegetation removal within the Order limits would be minimised and the land cleared of vegetation would be replanted following the construction phase. The Retained Existing Vegetation [REP7-004] with supporting drawings updated at Deadline VIII [REP8-087 to REP8-117] shows proposed planting areas. The Applicant also provided vegetation clearance drawings [APP-102 to APP-106]. The ES states that areas which would not be cleared during construction would be fenced off to prevent incursions into tree root protection areas by the construction plant [APP-149]. These control measures are included in the CEMP [REP9-002].
- 5.9.27 The removal of vegetation is discussed further in Section 5.13 of this Chapter on landscape and visual impacts of the proposed



development. In our opinion this matter is sufficiently addressed and secured in the draft DCO through Requirement 8, *CEMP*.

### ***Trees and Shrubs***

- 5.9.28 The species and distribution of trees and shrubs are described within Chapter 8: *Landscape* of the ES [APP-148]. Existing vegetation to be retained is described for each link location in Retained Existing Vegetation, Appendix 8.4 [APP-315] updated for Deadline VII [REP7-004].
- 5.9.29 The tree and shrub replacement areas would be maintained for a five year period from the date of completion of the works [APP-148]. This would be secured by Requirement 9, *Implementation and Maintenance of Landscape*, of the draft DCO. The appointed contractor would be responsible for rectifying all planting defects during the period of construction works as stated in the CEMP [REP9-002]. We are satisfied that this is sufficiently addressed and secured in the draft DCO.

### ***Conclusions on habitats***

- 5.9.30 Mitigation measures to protect habitats from the impact of the proposed development are described in the ToM. These measures would be included in the CEMP which would be finalised in consultation with the EA and the relevant planning authority prior to submission to the SoS for approval.
- 5.9.31 In our view mitigation for the protection of habitats has been sufficiently addressed and is secured in the draft DCO.

### ***Impacts on Fauna***

- 5.9.32 Surveys for amphibians, reptiles, birds, bats, dormice, water voles, otters and badgers are presented in the ES in Chapter 9: *Ecology and Nature Conservation* [APP-149]. Confidential information on badgers is given in Appendix 9.2 [APP-322].
- 5.9.33 Noise and vibration impacts on the receptors potentially affected by the construction and operation phase are assessed and considered unlikely to result in significant effects [APP-322]. Mitigation is proposed in terms of timing of works, which would result in restrictions to works in certain areas during sensitive times. We consider the noise and vibration impacts on otters, as identified by the Applicant to be affected, below.

### ***Great Crested Newts***

- 5.9.34 Great crested newt populations were found during the survey in eight ponds between Junctions 12 and 6 [APP-318 to APP-321]. None of these ponds lie within the Order limits but there is potential for the population to be present in terrestrial habitats in the area surrounding the ponds.

- 5.9.35 Mitigation measures include pre-construction surveys to confirm the absence of great crested newt populations within all the ponds in the study area [REP7-010]. Vegetation clearance, where there is a potential for the presence of great crested newts, would be undertaken in stages as detailed in the CEMP [REP9-002] and works would proceed under a precautionary method statement as outlined in the ES [APP-149].
- 5.9.36 Following the implementation of mitigation measures, there would be some impact on amphibians between Junctions 12 and 6 due to a minor permanent loss of foraging and hibernation habitat and therefore the significance of the effects would be slight adverse [APP-149].
- 5.9.37 However it is unlikely that the effects would be significant to the amphibians' populations in the wider area as the breeding habitat is not in close proximity [APP-149]. The use of this foraging habitat by great crested newts is likely to be limited; therefore no offence is likely to occur. In the CEMP it is stated that works would be scheduled to avoid disturbance during the hibernation period between October and February in order to protect the great crested newt population [REP9-002].
- 5.9.38 WBC raises concerns in regard to a pond in the Millennium Arboretum which supports a population of great crested newts [RR-296]. However, the Applicant agrees to undertake a Habitat Suitability Index (HSI) survey of this pond and considers the need for further surveys. The Council agrees with the proposed mitigation strategy for amphibians in general. NE raises no further issues regarding great crested newt surveys [REP2-008].
- 5.9.39 The Applicant has assessed the need for a licence for each known great crested newt population [APP-149] and identifies that an EPS would be required [APP-083]. NE is satisfied that due to the small number of breeding ponds, the distance from the Order limits and the small area of vegetation clearance, the risk of an offence with regard to great crested newts would be highly unlikely [REP2-008]. We are satisfied that the effects on great crested newts are appropriately considered by NE and the Applicant, and we are therefore content.

### ***Reptiles***

- 5.9.40 Areas of semi-improved grassland and bramble scrub which form suitable habitats for reptiles are located within the Order limits. Reptile surveys identified small populations of grass snakes and slow-worms between Junctions 12 and 5 [APP-149]. Both populations are protected against killing or injury by the Wildlife and Countryside Act 1981. No reptile populations are found between Junction 5 and 3 but small areas of potentially suitable habitats for foraging reptiles are present.

- 5.9.41 The reptile survey was only carried out on suitable habitats with the potential to be removed by the proposed development; other areas such as construction compounds were not surveyed. The Applicant would carry out pre-construction surveys where appropriate and an overarching Reptile Mitigation Strategy would be produced based on the survey findings. This strategy would form part of the CEMP which would also contain details of ecological supervision of habitat manipulation [REP9-002].
- 5.9.42 WBC raises concerns regarding the protection of The Grove Local Wildlife Site which has been a receptor site for translocations of slow-worms and common lizards [RR-296]. Further, the Council considers that the adjacent motorway verge would have a high potential for the presence of both species. The SoCG states that, provided the Applicant recognises the high potential value of the adjacent roadside verge and implements the mitigation strategy, there is common ground between both parties [AS-050]. As this has been agreed in the SoCG we are content that this matter has been resolved.
- 5.9.43 LBHill raises an issue regarding the potential for protected species on the site of CC 11 [REP2-045]. However, NE confirms that no reptiles or other protected species have been found at this compound [REP3-024].
- 5.9.44 The Applicant confirms that a reptile survey was commissioned in 2015 which indicates that there are no reptiles at Construction Compound 11 [REP3-007]. The Applicant also states [REP3-014] that all compound areas have been surveyed with the exception of CC 9 to which the Applicant has had difficulties in gaining access.
- 5.9.45 Following the implementation of the mitigation as included in the ToM [REP7-010], the residual effect on reptiles is expected to be slight adverse due to displacement and translocation of species and minor permanent loss of foraging habitat [APP-149]. NE, in its SoCG [REP2-008], is satisfied that details of mitigation measures in the CEMP, secured in Requirement 8 are sufficient and therefore we are content.

### ***Birds***

- 5.9.46 Desk based searches identify a number of protected bird species present within 1km of the Order limits. These include barn owl, brambling, hobby and kingfisher. The land within the Order limits has the potential to support nesting birds, but it is considered by the Applicant that the habitat only has a local value to birds due to limited extent, disturbance caused by the existing motorway and abundance of nesting opportunities in the surrounding land.
- 5.9.47 To mitigate the loss of nesting habitats within the nesting periods and in the long term the Applicant proposes measures within the ToM [REP7-010] that are incorporated into the CEMP [REP9-002]. These would include planning of works to take place outside core bird nesting seasons (March to August), erection of bird boxes at appropriate

locations to provide additional nesting opportunities, and new tree and shrub planting to implement the loss in the long term.

- 5.9.48 WBC raises concerns about the various impacts of the proposed development on barn owls [RR-296]. In particular the removal of vegetation near to existing nest boxes could increase the risk of barn owl road mortality and suggests that an assessment of hedgerows and trees which could be retained should be undertaken. Compensation planting to replace tall vegetation should be considered by the Applicant.
- 5.9.49 The SoCG between the parties, under matters agreed, includes discussion of protective measures to mitigate the impact of the proposed development on the local barn owl population. These measures are contained in the CEMP and secured in the DCO by Requirement 11, *Ecological Mitigation*. The Applicant would also consider the need for alternative breeding barn owls boxes in Wokingham Borough [AS-050].

### **Bats**

- 5.9.50 Seven bat roosts are identified in structures within the study area with a number of further structures that have potential to support roosting bats [APP-149]. One tree with roosting bats is also identified with a number of additional trees that have the potential to support roosting bats. Four areas suitable for foraging and commuting bats are identified and no habitats for hibernating bats are found within the Order limits.
- 5.9.51 The locations of potential roosting areas for bats are shown in Table 9.4 [APP-149]. Maternity roost sites are confirmed to be present at motorway structures and no bat roosts are confirmed in Junctions 8/9 and 3. However features that could potentially be suitable for roosting bats are recorded and noted by the Applicant.
- 5.9.52 The proposed ToM [REP7-010] contains measures for the pre-construction and construction phases which are incorporated into the CEMP [REP9-002]. The mitigation includes pre-construction surveys to confirm the continued absence of bats in all potential areas for bat roosting. A precautionary method statement would be prepared in advance of felling trees with potential for bat roosts. The Applicant confirms that the single tree that does support roosting bats would be retained [APP-149].
- 5.9.53 During construction, in order to avoid disturbance to confirmed roosts within the bat active season (May-September) the works would be timed where possible. Precautionary measures would include reduction of light spill and restriction of construction operational hours to daytime working. New landscape planting and habitat reinstatement for foraging bats is proposed by the Applicant with a provision of 60 bat boxes at suitable locations that would be incorporated into the Environmental Masterplan [REP8-087 to REP8-117].

- 5.9.54 BCC raises concerns regarding linear connectivity of sites as a strategic green corridor for wildlife, in relation to the protection of bat flying routes, pollinators and associated habitats in landscaping and design. The Council also has concerns with the mitigation of impacts during construction and in regard to the design of the proposed development around lighting with the consequent implications for bats and invertebrates [RR-241].
- 5.9.55 BCC maintains that further mitigation is required to increase connectivity across the proposed development and in relation to mitigating the impacts of lighting. The Applicant relies on the SoCG with NE, in which all matters are agreed, to argue against further mitigation to meet BCC's concerns and provides its reasoning in the Appendix 2 to the SoCG [REP3-018]. We are content that this matter has been resolved.
- 5.9.56 An area which is not agreed with WBC relates to the mitigation of works near Billingbear Brook Culvert to avoid impacts on bat roosts [AS-050]. The Applicant states in the SoCG that no significant hibernation features are identified in the structures in proximity of the works. The mitigation measures to protect this roost are outlined in the ES and would be secured by Requirement 8, *CEMP* of the DCO. NE does not raise any concern relating to works near the Billingbear Brook Culvert [REP2-008], and we have no reason to disagree.
- 5.9.57 NE confirms in the SoCG [REP2-008] that a European Protected Species (EPS) licence would be required for bats as there would be disturbance of maternity roosts at Beansheaf Farm Culvert. It is agreed that a 'letter of no impediment' would be required from NE. This letter had not been received by the end of the Examination. However, the SoS may wish to satisfy himself as to the need for a letter from NE to indicate that there is no likely impediment to the issue of an EPS licence.

### ***Water Voles***

- 5.9.58 Surveys undertaken by the Applicant confirm the presence of water voles on three watercourses between Junction 12 and 11 [APP-149]. Further habitats suitable for water voles are identified between Junction 11 and 3 but no water voles were found within these links of the proposed development [APP-316]. No works to occupied water vole habitats or within 5m of watercourses occupied by water voles are proposed by the Applicant. For this reason the Applicant states that no licence or any targeted mitigation would be required [APP-149].
- 5.9.59 As a precautionary measure the Applicant proposes within the ToM [REP7-010] a pre-construction survey to be undertaken to confirm the continued absence of water voles within the suitable habitats affected by the works, mainly the vegetation removal and ground breaking.

- 5.9.60 The potential effects from pollution on watercourses which are suitable for use by water voles would be mitigated through the CEMP through compliance with the EA's Pollution Prevention Guidance 5. NE did not raise any issues in this matter, and we are satisfied that the mitigation proposed is sufficient.

### **Otters**

- 5.9.61 The surveys undertaken by the Applicant identify seven watercourses within the Order limits where otters are present. No otter holts nor resting sites are found within the field survey study area but potentially suitable habitats to support otter holts or couches are identified. The proportion of suitable habitats for otters within the Order limits is found to be limited. However these areas are described as critical for the movements of otters [APP-149].
- 5.9.62 The ToM provides for a pre-construction survey to confirm the continued absence of this species within the potential suitable habitats. The mitigation measures include protection of otters from night-time construction working noise and vibration, and from light spill to watercourses secured by Requirement 8, *CEMP*. They also make allowance for the passage of otters along one or both banks of the watercourse. Otter ledges would be provided as part of the permanent works where the presence of otters is identified. Otter resistant fencing around bridges over watercourses would be installed to protect otters from accessing the proposed development [REP7-010]. We consider that the mitigation proposed is sufficient and also provides some level of enhancement.

### **Badgers**

- 5.9.63 All information related to badgers (including survey methodology, baseline information, mitigation, residual effects and cumulative effects), is set out in Confidential Appendix 9.2 [APP-322].
- 5.9.64 The Applicant states that the residual impacts during construction in the short term would be adverse and of minor significance due to disruption to foraging resources. In the long term, following mitigation, impacts are considered to be beneficial at the local level and of minor significance. In the operational phase, impacts following mitigation are expected to be negligible.
- 5.9.65 The SoCG with NE [REP2-008] states that a EPS licence would be required for badgers as one badger sett would be closed and replaced with an artificial badger sett and there would also be disturbance to a second badger sett to allow carriageway widening and construction of a new gantry. It is agreed between the parties that an 'in principal decision letter' would be provided by NE. This letter had not been received by the close of the Examination.
- 5.9.66 The ToM [REP7-010] proposes that a pre-construction survey would be undertaken prior to the start of works. This would ensure that badgers have not dug another sett within the application area or made changes

in the use of already identified setts. A re-survey would be undertaken immediately after vegetation clearance to confirm the total number of setts affected by the works.

- 5.9.67 The ToM [REP7-010] provides that a detailed method statement would be set out within the licence application. This would include the measures to be implemented and the timings of work to follow, and would be specific to each sett. Appropriate tree/scrub species would be planted to include native fruit, berry and nut producing species. Figure 1 of the ES incorporates the locations of badger proof fencing along the proposed development in order to prevent badgers from accessing the proposed development [APP-322].
- 5.9.68 All the mitigation measures described above are incorporated into the CEMP [REP9-002] and would be secured in the DCO by Requirement 11, *Ecological Mitigation*, Requirement 13, *Protected Species* and Requirement 24, *Biodiversity Management Strategy*. We are satisfied that the measures proposed for mitigation are sufficient and are adequately secured in the DCO. However, the SoS may wish to satisfy himself as to the need for a letter from NE to indicate that there is no likely impediment to the issue of an EPS licence.

### ***Dormice***

- 5.9.69 The ES [APP-149] indicates that no dormice were found during the survey in 2010 and in 2013, and that the habitat is unsuitable for dormice. NE accepts that the habitat offers little potential for dormice but a walkover survey would be required to confirm conditions had not changed before construction [REP2-031]. This is also confirmed by the Applicant [REP2-002.3] and therefore we have no reason to disagree.

### ***Conclusions on impacts on Fauna***

- 5.9.70 Mitigation measures to protect fauna from the impact of the proposed development are described in the ToM. These measures would be included in the CEMP in consultation with the EA and the relevant planning authority. The EMP and the CEMP would be secured in the draft DCO by Requirements 7 and 8. The mitigation of impacts on protected species is described and secured in the draft DCO, in Requirement 11, *Ecological mitigation*, Requirement 13, *Protected species*, and Requirement 24, *Biodiversity management strategy*. The discharge of these requirements would be subject to consultation with NE.
- 5.9.71 NE confirms that EPS licences would be required for bats and badgers, and the proposed development could not lawfully proceed without the EPS licence for bats and badgers. Regarding great crested newts, NE confirms that the risk of any offence is considered to be highly unlikely. However the Applicant considers that a licence may be required. This is therefore a matter for the Applicant to address in order to ensure that any offence is avoided. Subject to the EPS licences being issued there are no further issues relating to protected

species and NE agrees that the requirements are appropriate to secure mitigation.

- 5.9.72 We note that there remain issues not agreed regarding bats with WBC and BCC. However NE is the statutory authority, and agrees with the measures proposed by the Applicant to mitigate any impacts on fauna such that there would be no significant effect. We give strong weight to NE's view and in the absence of any evidence to the contrary, consider that the protection of fauna from the impacts of the proposed development is satisfactory and would be adequately secured through the DCO.

### **Habitat Connectivity - culverts and bridges**

- 5.9.73 The EA raises concerns about the Applicant's conclusions on neutral impacts on ecology as there would be a loss of river habitats (channel beds, margins and banks) as a result of works to bridges and culverts [RR-249]. However, in the SoCG with the EA it is agreed that "*the impacts on biodiversity by reducing connectivity of habitats and the ability of aquatic species and water dependent species to migrate can be appropriately mitigated through satisfactory mitigation measures*" [REP5-002.5].

- 5.9.74 The EA also considers that works to culverts present an opportunity to enhance connectivity where it is currently a barrier to migration. The Applicant has limited the necessary works to culverts and proposes to incorporate otter ledges which would improve the connectivity for otters and water voles [REP5-002.5]. These proposals would be subject to consultation with the EA [REP3-023.15] in accordance with Requirement 24, *Biodiversity management strategy*, of the DCO. The EA agrees that it is content with the overarching framework of the CEMP [REP5-002.5].

- 5.9.75 WBC identifies a number of culverts and underbridges as having high potential to be wildlife corridors and resting places across the M4 [RR-296]. The Council states that the mitigation measures should be required to minimise and avoid adverse effects to commuting and foraging for protected species using these crossing points. In the SoCG [AS-050] it is agreed that for structures identified by the Council, except for Billingbear Brook Culvert discussed earlier in this section, mitigation proposed would be sufficient as no works are proposed to the structures, although the works would be required nearby. NE did not raise any concerns regarding this issue [REP2-008].

### ***Conclusions on impacts on connectivity***

- 5.9.76 The EA agrees that the impacts on biodiversity by reducing connectivity can be appropriately mitigated through satisfactory mitigation measures and that it is content with the overarching framework of the CEMP.



- 5.9.77 WBC had raised concerns regarding habitat connectivity. However these matters are not raised in the SoCG with the EA or NE. We consider that the Applicant has sufficiently addressed the relevant matters. In our view the mitigation proposed is sufficient and secured in the DCO.

### **Enhancement of Biodiversity**

- 5.9.78 LBHill states that, in compliance with the NPPF, the Applicant should aim for a net increase in biodiversity and in the opinion of LBHill the proposal seems to aspire only to a no net loss principle [REP2-060].
- 5.9.79 The Applicant seeks to provide enhancement through the proposed development in compliance with national, regional and local policy. In terms of ecology this would be through construction of otter ledges, remediation of non-native invasive species, minimisation of the construction footprint, maximisation of the biodiversity potential of any soft landscaping and provision of bat boxes on strategically located land [REP3-017.1].

### **Conclusions on Enhancement of Biodiversity**

- 5.9.80 In our opinion the Applicant has taken the opportunity where possible to provide some enhancement to biodiversity within the application and meets the tests set out in paragraphs 5.23 and 5.36 of the NPSNN.

### **SUMMARY AND CONCLUSIONS**

- 5.9.81 Some matters remain not agreed between WBC, BCC and the Applicant. However NE and the EA, as the relevant statutory authorities, have agreement on biodiversity in their SoCGs with the Applicant. We have no reason to disagree with NE and EA and therefore consider that biodiversity and ecological conservation issues have been sufficiently considered by the Applicant and that appropriate mitigation is secured in the DCO. We also recognise that some level of enhancement, as required by the NPSNN, has been considered by the Applicant and the tests as set out in paragraphs 5.3 to 5.4, 5.23 to 5.26, 5.36 and 5.187 of the NPSNN are met.
- 5.9.82 By the close of the Examination, no letters had been received from NE to indicate that there was no likely impediment to the grant of EPS licences for the badgers and the bats. The proposed development could not lawfully proceed without the EPS licences for bats and badgers. The SoS may wish to satisfy himself as to the need for letters from Natural England to indicate that there is no likely impediment to EPS licences being issued in respect of badgers and bats.

## **5.10 CLIMATE CHANGE ADAPTATION AND CARBON EMISSIONS**

### **POLICY BACKGROUND**

- 5.10.1 The NPSNN sets out how the potential impacts of climate change should be taken into account using the latest UK Climate Projections available. It then states that appropriate mitigation or adaptation measures should be included in the ES (NPSNN paragraphs 4.36 to 4.47).
- 5.10.2 At paragraph 4.40 the NPSNN states that *"New national networks infrastructure will be typically long-term investments which will need to remain operational over many decades, in the face of a changing climate. Consequently, Applicants must consider the impacts of climate change when planning location, design, build and later operation."*
- 5.10.3 It continues at paragraph 4.41 that *"Where transport infrastructure has safety-critical elements and the design life of the asset is 60 years or greater, the Applicant should apply the UK Climate Projections 2009 (UKCP09) high emissions scenario (high impact, low likelihood) against the 2080 projections at the 50% probability level."*
- 5.10.4 Regarding emissions the NPSNN states at paragraph 3.8 that the annual CO<sub>2</sub> impacts from delivering a programme of investment on the Strategic Road Network on the scale envisaged over a 10 -15 year period amount to well below 0.1% of the annual carbon emissions allowed in the fourth carbon budget.
- 5.10.5 Carbon impacts should be considered by the Applicant and evidence of appropriate mitigation measures provided (NPSNN paragraphs 5.16 to 5.19). At paragraph 5.17 it states that *"It is very unlikely that the impact of a road project will, in isolation, affect the ability of Government to meet its carbon reduction targets. However, for road projects Applicants should provide evidence of the carbon impact of the project and an assessment against the Government's carbon budgets."*

### **CLIMATE CHANGE ADAPTATION**

#### **APPLICANT'S APPROACH**

- 5.10.6 Climate change adaptation is not specifically addressed in the ES although it is mentioned in Chapter 15: *Road Drainage and the Water Environment* [APP-155]. In addition, a FRA is provided to demonstrate how flood risks would be managed, taking climate change into account [REP7-152].
- 5.10.7 The Planning Statement addresses the implications of climate change, stating that a 30% allowance for climate change, as recommended in the UKCP09 high emissions scenario 2080 projections, has been adopted, in place of the more widely used 20% allowance for climate change [APP-089]. However, in Chapter 15, and in the FRA, it appears

that an allowance of only 20% has been used. As a 20% allowance is used in the final FRA submitted [REP7-152] we assume that there may have been an error in the Planning Statement.

- 5.10.8 The Planning Statement goes on to state that as the carriageway levels of the M4 are mostly above the 1% Annual Exceedance Probability (AEP) + climate change flood levels, users of the motorway are not considered to be at any significant risk from river flooding [APP-089].

### **ISSUES ARISING**

- 5.10.9 As the Applicant had not submitted a report on climate change at our first hearings, we asked the Applicant to what extent this would add to the evidence [EV-009]. In response, the Applicant repeated that a 20% climate change allowance had been used for the assessment of additional paved areas when designing new or augmenting existing areas affected by the proposed development [REP4-001].
- 5.10.10 The final version of the FRA considers the effect of climate change [REP7-152]. It concludes that climate change would be taken into account and mitigated for surface water runoff from additional paved areas and all works in the fluvial floodplain.
- 5.10.11 The EA had no comment to make on this issue and accepted that the FRA was sufficient as discussed in the Section 5.8 on water in this Chapter.

### **SUMMARY AND CONCLUSIONS**

- 5.10.12 We consider that the Applicant has considered climate change adaptation throughout the design of the proposed development. The main issue relevant to climate change would be the potential for increased flood risk. As discussed in Section 5.8, by the close of the Examination, the Applicant had produced an adequate FRA which provides a proper assessment of flood risk with mitigation measures which are agreed with the EA. We have concluded that risk of flooding has been adequately addressed.
- 5.10.13 In terms of climate change adaptation, we consider that the matter has been sufficiently addressed by the Applicant in line with paragraphs 4.36 to 4.47 of the NPSNN.

### **CARBON EMISSIONS**

#### **APPLICANT'S APPROACH**

- 5.10.14 Carbon emissions are addressed in the ES in Chapter 6: *Air Quality* and Chapter 11: *Materials and Waste* [APP-146 and APP-151]. There is also a brief reference to it in the Socio-economic Report at Appendix B [APP-090].

- 5.10.15 A regional assessment was carried out by the Applicant on the whole study area to consider changes in annual road transport emissions, including CO<sub>2</sub> in the opening year (2022) and the design year (2037). The latest EFT was used in the estimation of these emissions [APP-146].
- 5.10.16 The impact of embodied carbon contained within the main material resources during construction is assessed to be major adverse. However the Applicant considers that by maximising the amount of materials and waste to be reused on site the residual effect could be reduced to moderate adverse [APP-151].
- 5.10.17 The Planning Statement notes that, in comparison to the national CO<sub>2</sub> emissions targets, increases in CO<sub>2</sub> from the whole of the road building scheme anticipated over the next 10-15 years are considered to be small (less than 0.1% of the annual carbon budget). The increases associated with the proposed development comprise part of that small increase [APP-089].

### **ISSUES ARISING**

- 5.10.18 In response to a number of representations [including RR-031, RR-128, RR-044 and RR-243], the Applicant states that the assessment of the proposed development has calculated that carbon dioxide emissions would increase by approximately 4 million tonnes over the 60 year appraisal period following the approach in DfT's Appraisal Guidance (WebTag) [REP1-003.4].
- 5.10.19 This increase in CO<sub>2</sub> attributable to the proposed development has been shared with DfT for comparison against the National Carbon Plan. The Applicant reports that DfT advised that, when taken together with the Department's wider strategy on carbon reduction, the increase attributable to the proposed development should not have a material impact on the Government's ability to meet its carbon reduction target.
- 5.10.20 We requested a copy of the DfT advice, but this was not provided in the course of the Examination [EV-009, PD-001, and EV-031 to EV-038, REP9-043]. It will be a matter for the SoS to decide whether the advice from his department, which has not been supplied, is material.

### **SUMMARY AND CONCLUSIONS**

- 5.10.21 As a part of the programme of investment on the Strategic Road Network, we are satisfied that the proposed development would be likely to fall within the level of annual CO<sub>2</sub> impacts on the scale envisaged over a 10-15 year period identified in the NPSNN at paragraph 3.8. It would therefore be well within 0.1% of the annual carbon emissions allowed in the fourth carbon budget.

## **5.11 HEALTH**

### **POLICY BACKGROUND**

- 5.11.1 The NPSNN states at paragraph 2.2 that there is a critical need to improve national networks to address congestion. It states that improvements may also be required *"to address the impacts of the national networks on quality of life and the environment"*.
- 5.11.2 The impacts on health are specifically addressed in the NPSNN at paragraphs 4.79 to 4.82. In particular paragraph 4.79 states that national road networks have the potential to affect the health, wellbeing and quality of life of the population. The direct impacts listed include traffic noise, vibration, air quality and emissions, and light pollution. These direct impacts are considered in detail in other sections of this Chapter.
- 5.11.3 The NPPF sets out the Government's plans and states that developers should mitigate and reduce to a minimum any adverse impacts on health and quality of life arising from noise from new developments.

### **APPLICANT'S APPROACH**

- 5.11.4 Health is not addressed as a topic in the ES. However, the potential impacts of the proposed development on the issues identified in the NPSNN are considered within the individual chapters of the ES. The impacts of air quality are discussed in Chapter 6: *Air Quality* [APP-146], the impacts of noise and vibration are discussed in Chapter 12: *Noise and Vibration* [APP-152], the impacts on travellers in Chapter 13: *Effects on all Travellers* [APP-153] and effects on communities in Chapter 14: *Community and Private Assets* [APP-154].
- 5.11.5 Health issues relating to construction and operation are considered by the Applicant under technical topics. The impacts of the proposed development are discussed under relevant sections of this Chapter, together with the measures proposed in mitigation. We do not repeat our detailed reporting of those topics in this Section.
- 5.11.6 During the s42 consultations, PHE noted that the Preliminary Environmental Impact Assessment did not contain a specific section summarising the potential impacts on human health. It went on to say that a summation of possible health impacts into a specific section of the report would provide focus ensuring that public health is given adequate consideration [Appendix 1 - APP-301].
- 5.11.7 The Applicant therefore prepared a Health Impact Assessment (HIA) during the Examination [REP3-012]. This considers the following topic areas:
- access to social infrastructure;
  - recreation, green space and light pollution;
  - active travel;
  - air quality;

- noise and vibration;
- soil and water pollution;
- community safety and driver stress;
- access to work and training; and
- minimising the use of resources.

### **ISSUES ARISING**

- 5.11.8 The key issues arising during the Examination are the impacts on the health of local residents from the following:
- increased air pollution;
  - increased noise pollution; and
  - increased light pollution.
- 5.11.9 The health impact from the proposed development is of concern to many of the IPs. London Borough of Hammersmith and Fulham is concerned about the health of its residents and their quality of life [RR-195]. Cranford Park Friends states that the existing noise pollution in the park is excessive and would be made worse by the proposals [RR-044]. John McDonnell MP is concerned about the effect of bringing the motorway closer to his constituents' homes, exposing them to higher carbon emissions, air, light and noise pollution [RR-172]. Many of the other IPs reflected similar concerns [eg RR-037, RR-121, RR-128, and RR-227].
- 5.11.10 The Applicant considers that overall the proposed development would have beneficial effects during operation. During construction, minor positive effects are predicted for health determinants relating to access to work and training, and minimising the use of resources. All of the other topics assessed are predicted to experience negative effects [REP3-012].
- 5.11.11 During operation the Applicant's assessment finds that the majority of impacts on health are positive. In particular, the use of low noise asphalt surfacing is predicted to minimise noise effects at adjacent properties. Minor negative effects are identified relating to air quality and recreational green space and light pollution. In terms of air quality, the Applicant states that a small number of people are predicted to experience detrimental air quality effects in the opening year (2022) [REP3-012].
- 5.11.12 The Councils and other IPs do not accept the Applicant's conclusions of significance of the impact of the proposed development on health. LBHill states that the unmitigated growth of all the "*non-significant*" impacts could result in a cumulative significant effect; "*effects that have so far manifested itself in significant harm to health to thousands of people*". As the HIA was submitted after the ES with its conclusions based on the findings from the ES, LBHill further states that the HIA provides little additional information to understand the impacts on health [REP4-039].

- 5.11.13 CBT takes a broader look at the HIA and states that much of the scoring within the document is overly optimistic and without evidence to support the position taken by the Applicant. CBT looks at each of the nine areas that are considered in the HIA and agrees with only two areas (soil and water pollution, and recreational, green space and light pollution). Overall, CBT states that all nine areas assessed in the HIA should be re-evaluated by the Applicant [REP4-031].
- 5.11.14 Although there was not complete agreement on the outcomes of the HIA by all IPs, we have dealt with individual impacts elsewhere in this Chapter. The one area in which we consider there remains a potential risk to health which could be significant is in relation to the effects of the proposed development on air quality. In other respects, we consider the HIA, when considered together with the detailed assessments set out in the ES and in subsequent submissions to the Examination, to be adequate.
- 5.11.15 In its initial review, PHE considers the HIA to be satisfactory and sufficient [REP4-029]. PHE heard further discussion between the LBHill and SBC and the Applicant at the November 2015 ISH [EV-016 to EV-022] regarding the uncertainties in traffic modelling and hence the assessment of air quality, and the differing views on likely future vehicle emissions. PHE consequently raises concerns that, in the event that the traffic modelling should be amended or altered, the air quality impact on health would also be subsequently amended. The Applicant has not amended its traffic modelling or air quality assessment. However, for the reasons which we set out in the section on air quality, we consider that the inherent uncertainties in the modelling process give us reason to have concerns about long term potential health effects.
- 5.11.16 PHE advises that there is a likely impact on mortality associated with increases in long-term average concentrations of NO<sub>2</sub>, with the increase in risk depending upon the increase in concentration. However, the confidence in this increased risk would depend upon whether the proposed changes in traffic management would result in higher concentrations of NO<sub>2</sub> alone, or would result in increases in exposure to other traffic-related pollutants. PHE also advises, taking into account recent advice from COMEAP<sup>62</sup>, that any increase in exposure to NO<sub>2</sub> in locations where standards are already increased should be viewed as "*undesirable and avoided if practicable*" [REP4-029].
- 5.11.17 In the SoCG between SBC and the Applicant, it is agreed that the Applicant would support the Council in its low emission strategy and it would use best practice measures on construction sites to address air quality exceedances and their health impacts on the local communities [REP8-004]. However, no agreement is reached in the SoCG with SBC

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<sup>62</sup> Committee on the Medical Effects of Air Pollution  
Report to the Secretary of State for Transport  
M4 Junction 3 to 12 Smart Motorway

on the overall air quality impacts as discussed in the Section 5.7 on air quality in this Chapter.

- 5.11.18 Air quality impacts are a significant public health issue which have the potential to affect the health of hundreds of thousands of the general population in England. As stated by SBC, air quality impacts would affect the health of "*potentially thousands of residents in Slough*" who live within AQMAs [REP4-034]. In our view the uncertainties in modelling as described in the sections on traffic forecasting and air quality within this report could affect the overall conclusions in terms of levels of NO<sub>2</sub> and the consequent significance of the impacts on health.
- 5.11.19 In view of the serious health effects that may be caused by increases in NO<sub>2</sub>, we recommend in Chapter 8 the addition of a requirement to the DCO through which the future monitoring of air quality and potential mitigation of air quality impacts arising as a result of the proposed development would be carried out. In our view such a requirement is justified as a precaution against the potential for errors in the air quality assessment in those areas which are already identified as AQMAs along the length of the proposed development.
- 5.11.20 During construction, mitigation measures are included in the CEMP [REP9-002] to control emissions. Additional mitigation measures are identified for CC 8 and 9 as there is a high risk to sensitive receptors nearby. In our opinion the mitigation measures described in the CEMP are sufficient and secured in the DCO.
- 5.11.21 We discuss the full noise impacts of the proposed development within Section 5.4 of this report. The impacts of noise would be mitigated appropriately during operation by the package of mitigation, provided that the low noise surfacing is maintained throughout the life of the proposed development in accordance with Requirement 5, *Carriageway Surfacing*. Noise impacts during construction may be significant but they would be temporary. We are satisfied that these would be mitigated as far as possible through Requirement 8, *CEMP* in the DCO and through s61 agreements under the Control of Pollution Act 1974 with relevant local authorities.
- 5.11.22 We discuss the impacts of light pollution in Section 5.13 of this Chapter and are satisfied that night-time lighting would be controlled during construction through Requirement 8, *CEMP*. Although new lighting columns would be introduced, they would replace existing columns and not therefore extend the zone of influence of the lighting. Furthermore, Light Emitting Diode (LED) luminaires would be used, which have the potential to provide some benefit in terms of a reduction in light spillage. We do not therefore consider that the operation of the proposed development would have any significant impact on health as a result of the proposed lighting strategy.



## **SUMMARY AND CONCLUSIONS**

- 5.11.23 We are satisfied that together with the evidence presented in the ES and other submissions to the Examination, the HIA is generally satisfactory.
- 5.11.24 Our main concern relates to the possible air quality impacts on the health of the surrounding populations as raised by a number of local authorities and other IPs. As discussed in Section 5.7 on air quality in this Chapter, we recommend an additional requirement in the DCO to monitor air quality levels and provide mitigation if required.
- 5.11.25 We are satisfied that the mitigation measures to control emissions described in the CEMP for the construction phase are sufficient and secured in the draft DCO.
- 5.11.26 We are satisfied that the proposed development would provide sufficient mitigation to generally improve the noise environment in the vicinity of residential properties and community facilities along the length of the proposed development during operation. We are satisfied that construction noise would be mitigated as far as possible through the CEMP and through Section 61 agreements under the Control of Pollution Act 1974 with relevant local authorities. As a result the proposed development would not have an impact on health as a result of any increase in noise.
- 5.11.27 There would be no additional lighting put in place as a result of the operation of the scheme, and LED luminaires would be put in use. We are satisfied that there would be no impact on health as a result of increased lighting from the proposed development during operation. We are also satisfied that appropriate measures would be taken to control the lighting impacts of construction in the hours of darkness.
- 5.11.28 Overall we consider that the health impacts have been assessed and mitigation measures are proposed. We are generally of the opinion that the application meets the tests set out in the NPSNN except with regards to impacts on air quality. We recommend the inclusion of the air quality requirement in the DCO, described in Chapter 8, to provide a mechanism by which the Applicant's forecasts might be validated. If they are not, and the forecast levels of NO<sub>2</sub> are exceeded as a result of the proposed development, there would be a requirement for impacts on air quality to be mitigated. With this requirement in place, we are satisfied that the proposed development would accord with the test set out in paragraph 4.82 in the NPSNN.

## **5.12 HISTORIC ENVIRONMENT**

### **POLICY BACKGROUND**

- 5.12.1 The NPSNN at paragraph 5.120 recognises the potential for the construction and operation of national networks infrastructure to have

adverse impacts on the historic environment. It is for the Applicant to carry out an assessment of any likely significant heritage impacts.

- 5.12.2 Paragraph 5.124 of the NPSNN requires that non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments should be considered subject to the policies for designated heritage assets.
- 5.12.3 Regulation 3 of The Infrastructure Planning (Decisions) Regulations 2010 (IPDR) deals with listed buildings, conservation areas and scheduled ancient monuments in the context of applications for National Infrastructure development.
- 5.12.4 This regulation states at 3(1) that in deciding an application which affects a listed building or its setting, the decision maker must have regard to the desirability of preserving the listed building or its setting or any features of special architectural or historic interest which it possesses. For conservation areas, 3(2) states that the decision maker must have regard to the desirability of preserving or enhancing the character or appearance of that area. When deciding an application for development consent which affects or is likely to affect a Scheduled Ancient Monument (SAM) or its setting, the decision maker must have regard to the desirability of preserving the SAM or its setting (3(3)).

#### **APPLICANT'S APPROACH**

- 5.12.5 The Applicant's assessment of impacts during both the construction and operational phases of the proposed development is set out in Chapter 7: *Cultural Heritage* of the ES [APP-147], supported by Figure 07-1 [APP-210 to 213]. It follows the guidelines set out in the DMRB Volume 11<sup>63</sup>, Section 3, Part 2 – Cultural Heritage for a simple level assessment. A simple level assessment was chosen as preliminary assessment work determined that the proposed development was unlikely to have any significant impacts on the cultural heritage resource. The appropriateness of this approach has been acknowledged in the scoping opinion received from the SoS [APP-301].
- 5.12.6 In the event that construction works are likely to disturb previously unknown archaeological remains, or are required in areas of un-excavated ground, archaeological watching briefs would be undertaken during topsoil stripping and excavations. Any such briefs would then be followed by an appropriate programme of assessment, analysis and reporting. This is secured through Requirement 15, *Archaeological remains*, in the recommended DCO. In view of the known archaeological potential of CC 5, a separate Requirement (16) would secure a written scheme of investigation for the site prior to the start of works.

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<sup>63</sup> <http://www.standardsforhighways.co.uk/DMRB/vol11/index.htm>

- 5.12.7 Table 7.3 in Chapter 7 of the ES [APP-147] identifies the Applicant's assessment of the residual effects of the construction and operation of the proposed development on designated heritage assets between each of the junctions from Junction 12 to Junction 3.
- 5.12.8 The Applicant's assessment has not identified any non-designated assets that are demonstrably of equivalent significance to scheduled monuments. However, Richings Park is raised as such an asset [REP7-180] and we consider it below.

### **ISSUES ARISING**

- 5.12.9 The SoS must take into account the desirability of conserving heritage assets and sustaining their significance. In accordance with paragraph 5.129 of the NPSNN, the assessment provides each heritage asset with a relative value such that the SoS may take into account the significance of a heritage asset in the assessment of impacts. The Applicant's assessment finds that there would be no direct physical impacts on identified heritage assets (both designated and non-designated) associated with the proposed development, and that impacts on the setting of any heritage assets would be minimal. As such, all heritage assets are being conserved. However, no opportunities for enhancement have been identified. This is a matter to which we return in relation to the listed buildings in Cranford Park.
- 5.12.10 Paragraph 5.131 of the NPSNN states that substantial harm to or loss of Grade II listed buildings and Grade II registered parks and gardens should be exceptional and that substantial harm to, or loss of, scheduled monuments, Grade I and II\* listed buildings and Grade I and II\* registered parks and gardens should be wholly exceptional. The Applicant's assessment finds that none of these classes of heritage asset would experience substantial harm or loss as a result of the proposed development. We consider the submissions of the Buckinghamshire Gardens Trust [REP7-169] in relation to the impact on Richings Park, which at the close of the Examination was not a designated heritage asset, later in this Section.
- 5.12.11 We have already referred to Requirement 15 in the DCO which would provide for archaeological mitigation. Provision for mitigation measures during the construction phase would also be made through the CEMP as secured through Requirement 8 in the DCO.
- 5.12.12 Historic England has indicated [RR-280] that it is largely content with the Applicant's appraisal. Some specific comments were made in respect of impacts on the Churches of St Peter and St Paul in Harlington and of St Dunston in Cranford; in relation to the Scheduled Ancient Monument of Cippenham Court; and in relation to the Mesolithic site at Bray Wick which is located just 250m from CC 5 at Junction 8/9.

- 5.12.13 The Harlington conservation area in which the church of St Peter and St Paul is located is partly within the Zone of Visual Influence (ZVI) for the proposed development. Gantries G1-07 and G1-09 would be located some 50m from the northern boundary of the conservation area.
- 5.12.14 With regard to the Grade II\* church of St Dunstan, together with other heritage assets within the Cranford Park conservation area, the motorway carriageway is at a higher level as it rises up to Junction 3. Two gantries are proposed to the north west and north of the church.
- 5.12.15 It has been agreed between the applicant and Historic England that impacts on the SAM of Cippenham Court would be temporary with a negligible magnitude of impact, which as this is a high value asset, would result in a slight adverse significance of effect during construction only. Therefore we agree that no mitigation is required.
- 5.12.16 In relation to the Mesolithic site at Bray Wick, this would be located some 250m from CC5 at Junction 8/9, but Historic England accepts that the construction compound would be sufficient distance from the site for there to be no impact on the Scheduled Ancient Monument. However, Historic England considers that there is potential for significant archaeological remains to extend beyond the scheduled area. A geophysical survey and archaeological evaluation trenching would be undertaken by the Applicant prior to construction commencing, in consultation with the county archaeologist. The significance of effect is agreed to be neutral to moderate adverse, depending on the findings of the archaeological studies. We are satisfied that appropriate measures are proposed to protect this site.
- 5.12.17 The church of St Peter and St Paul lies within the Harlington Conservation Area. Whilst the northern periphery of the conservation area lies within the ZVI, the church does not, and is surrounded by other buildings and mature trees. It is agreed through the SoCG with Historic England that no impacts to the setting of the church are anticipated and we therefore agree that no mitigation is required.

#### *Cranford Park*

- 5.12.18 The Applicant has undertaken a further assessment of the impact on Cranford Park, and following discussions with Historic England, a SoCG has been produced [REP2-011]. The visualisations indicate that existing vegetation provides an effective screen to the M4 and Historic England agrees that the additional photomontages do not indicate any increased harm to the significance of the church of St Dunstan, the associated listed buildings and Cranford Park Conservation Area.
- 5.12.19 We have visited Harlington and Cranford Park in the course of our accompanied site inspections. In terms of the visual impact of the proposed development on the heritage assets, we find no reason to disagree with the position reached between Historic England and the Applicant. However, in Cranford Park in particular we have found that

the presence of the M4 has a significant impact on the aural environment of the Park and its listed buildings.

- 5.12.20 Cranford Park Friends (CPF) [RR-044 and AS-004] submits that the existing noise pollution in the park from the M4 and its slip roads is excessive and would be made worse by the proposals. CPF asserts that the noise from the motorway spoils the enjoyment of the park for visitors and renders it almost impossible for staff and volunteers to talk to groups of visitors. Noise is also a limiting factor in finding a community use for the Grade II listed stable building, which is the intention of the group and which is supported by LBHill.
- 5.12.21 We deal with noise and vibration in Section 5.4. It is the Applicant's case that the noise environment would be improved through the use of low noise surface treatment for the whole length of the proposed development. Furthermore the ENMS [REP8-055 to REP8-086] indicates a 2m high barrier adjacent to the Park which would provide minor/moderate noise reductions across the Park once the proposed development was in operation.
- 5.12.22 In paragraph 5.130 of the NPSNN it states that the SoS should take into account the desirability of sustaining and where appropriate, enhancing the significance of heritage assets, the contribution of their settings and the positive contribution that their conservation can make to sustainable communities. Cranford Park is an area of open space within a generally densely developed urban area. Local community groups such as the Hayes Community Development Forum [REP4-030] together with the CPF are seeking to maintain the Park as an attractive open space, and to find a new use for the listed stables in order to secure their long term maintenance.
- 5.12.23 In view of the noise environment currently experienced in the Park, we consider that it would be desirable to enhance the setting of the listed buildings through improvement to the noise environment of the Park. This would accord with paragraph 5.130 of the NPSNN. Although the ENMS and use of low noise surfacing would provide some mitigation, the fencing would be provided at the base of the embankment on which the motorway is located as it passes the listed church, and we consider that the provision of a 2m high barrier in this location would provide very limited and barely noticeable changes to the noise environment. As a result the proposed mitigation would do little to improve the noise environment to such an extent as to aid the community groups in their work to improve the Park and find a new use for the listed building.
- 5.12.24 Whilst we accept that the proposed development in itself would not add to the harmful effect of noise on the setting of the listed buildings, in our opinion the proposed development represents an opportunity to provide significant enhancement to the noise environment of Cranford Park as both a community asset and the setting for the listed buildings. Such enhancement would accord with paragraphs 3.3 and 5.130 of the NPSNN which encourages Applicants to deliver

environmental and social benefits as part of a proposed development and to enhance the significance of heritage assets. We find that this failure to provide enhancement is a matter which weighs against the proposed development to a limited extent.

#### *Richings Park*

- 5.12.25 With regard to Richings Park, we note that the area is now occupied by Richings Park Golf Course. BCC [REP7-180] intends to use the information submitted by the Buckinghamshire Gardens Trust [REP7-180 Appendix B] to submit the park to Historic England to consider it for inclusion in the Register of Parks and Gardens. However, it is clear that although the area was a designed landscape of some significance in the early 18th century and late 18th/19th centuries, it does not survive in any meaningful form apart from certain features, such as the canal, which have been incorporated into the current golf course. There is no evidence that the Park has been considered for entry into the Register of Historic Parks and Gardens by the close of the Examination.
- 5.12.26 With the exception of an area immediately adjacent to the M4, the majority of the Park lies outside the ZVI of the proposed development, largely due to the depth of the adjacent woodland such as Oak Wood and Old Plantation and other planting between the M4 and the golf course. However the end of the canal does not benefit from such screening, so it is the impact of the proposed development on the setting of the canal which could be affected by the proposed development.
- 5.12.27 The Trust argues that the canal is of the highest significance since it is believed to be part of the early 19th century scheme which has otherwise been lost. The main damaging effect which is identified by the Trust relates to the new gantry (G3-05) proposed at the south end of the canal which the Trust considers would harm the "*bucolic view*" [REP7-180]. Together with BCC, the Trust requests the relocation of the gantry and enhancements such as additional landscaping.
- 5.12.28 Having regard to the current location of the M4, the motorway forms a part of the setting of the Park and of the canal. The Applicant assesses the visual impact of the proposed development by accessing adjacent roads and PRoW. The ES [APP-148] finds that the proposed development would have a limited effect on the character of the golf course due to the nature of the intervening vegetation along the south edge of the M4. In a subsequent assessment of photographs submitted by BCC [REP7-180 Appendix B], the Applicant identifies in the photograph of the 'end of canal north' a view from the footbridge over the canal between the 17th and 18th tee. This view indicates that intervening vegetation on either side of the canal helps to screen the existing traffic on the M4 in winter views. At worst the proposed gantry would be viewed through a leafless winter canopy but would be largely screened in the summer when the vegetation is in full leaf.

- 5.12.29 We have no reason to disagree with the Applicant's assessment. The course of the canal is already terminated by the M4, and the M4 forms part of its setting. There may be some localised change as a result of the erection of the new gantry, but we consider that the change in the character of the setting of the canal would be minimal such that it would be largely preserved. As a result we consider that a requirement to relocate the gantry would not be justified.

## **SUMMARY AND CONCLUSIONS**

- 5.12.30 We find that the Applicant's assessment of impact, with the additional material appended to the SoCG with Historic England [REP2-011] provides a fair representation of the effects of the proposed development on the historic environment. As a result we agree with the Applicant that, with the added protection of relevant requirements in the DCO, the character and appearance of historic assets would be preserved in accordance with Regulation 3 of the IPDR, and meet the tests set out in the NPSNN.
- 5.12.31 For the reasons we have given, we do consider that improved provision of noise mitigation for Cranford Park would be desirable and in the interests of preserving the listed stable for which a new use is sought. An enhancement of the noise environment for the setting of the listed building would be in our view desirable to secure its economic vitality in accord with NPSNN paragraph 5.130. This is a matter which in our view weighs to a limited extent against the proposal.

## **5.13 LANDSCAPE AND VISUAL IMPACTS**

### **POLICY BACKGROUND**

- 5.13.1 The NPSNN paragraph 5.144 requires an assessment of any likely significant landscape and visual impacts of a proposal, which has regard to any landscape character assessment and associated studies. The effects both during construction and operation should be assessed, in terms of the effects on landscape components and character, and in terms of the visibility and conspicuousness of the project.
- 5.13.2 As the proposed development passes through the North Wessex Downs AONB between Junctions 12 and 11, the NPACA 1949<sup>64</sup> applies. The NPSNN states at paragraph 5.151 that "*the SoS should refuse development consent in these areas except in exceptional circumstances and where it can be shown to be demonstrated that it is in the public interest.*" The tests for such development are listed in NPSNN paragraph 5.151.

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<sup>64</sup> <http://www.legislation.gov.uk/ukpga/Geo6/12-13-14/97>

- 5.13.3 Where consent is given in these areas, NPSNN paragraph 5.153 states that *"the SoS should be satisfied that the Applicant has ensured that the project will be carried out to high environmental standards and where possible includes measures to enhance other aspects of the environment."* The duties of the SoS as decision maker are also set out in the NPACA 1949 and the CRWA 2000<sup>65</sup>.

### **APPLICANT'S APPROACH**

- 5.13.4 In the ES Chapter 8 [APP-148] the Applicant has carried out a landscape and visual impact assessment (LVIA) of the proposed development in accordance with: DRMB Volume 11 Section 2 Part 5; IAN 135/10; Landscape Institute Advice Note 01/11; IAN161/13; Landscape Institute and Institute of Environmental Management and Assessment 'Guidelines for Landscape and Visual Impact Assessment' (GLVIA); and Institute of Lighting Engineers 'Guidance on the Reduction of Obtrusive Light'. As a result the assessment has followed the principles of best practice.
- 5.13.5 A Zone of Visual Impact (ZVI) defines the study area for the assessment. The ZVI broadly defines the approximate area within which the proposed development would be visible, based on site surveys and taking into account landform and land cover (eg vegetation and buildings). In relation to landscape character, the study area extends beyond the ZVI in areas where the landscape character area (LCA) extends beyond it at that location.
- 5.13.6 The study area for the proposed development falls within National Character Area (NCA) 115: Thames Valley. The western extent of the proposed development falls within the North Wessex Downs AONB. The analysis of the proposed development in the context of the LCA is based on a review of the local LCAs which fall within the ZVI, and character assessment documents where these have been prepared and published by the local authorities. These are shown on Drawing 8.1 [APP-215 to APP-217 sheets 1-16].

### **The baseline for the study**

- 5.13.7 Desk based studies are used to identify relevant policy and landscape character information and are fully described in the ES [APP-148]. A detailed landscape survey of the local LCAs is also carried out during summer and winter to establish the likely visual influence of the proposed development, identify visual receptor groups and describe the existing views experienced by receptors. Viewpoints are identified and photographs taken and used to produce 90 degree panoramas. The photomontages to show the effects of the proposed development are shown in Appendix 4.3 [APP-300].

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<sup>65</sup> <http://www.legislation.gov.uk/ukpga/2000/37/contents>



- 5.13.8 As a nationally designated area, the AONB has the highest status of protection in relation to landscape and scenic beauty. Reference is made [APP-148] to the North Wessex Downs AONB Management Plan that recognises the special quality of the landscape, which includes the river valley of the Kennet. This forms a distinct linear landscape characterised by a rich mix of grazed pasture, water meadows, wetland and woodland, with steeply rising slopes creating an intimate and enclosed character.
- 5.13.9 The proposed development, including one gantry (G9-21) would fall within the river valley of the Kennet. However, there would be no widening of the motorway as it passes through the AONB, and there would be no loss of important vegetation. There would be some limited disruption during the construction of the gantry, and this impact is recognised in the summary relating to the impacts on the AONB between Junctions 12 and 11 set out below.
- 5.13.10 Outside the nationally designated AONB the proposed development does not fall within any locally designated landscapes. It does cross Green Belt land, but that is not a landscape designation and we consider the policy issues relating to the Green Belt, including the impact on the openness of the Green Belt, elsewhere in this Chapter (Section 5.17).
- 5.13.11 The proposed development does fall entirely within NCA 115 Thames Valley<sup>66</sup>. The Applicant quotes descriptive text from the 2012 profile for NCA 115 as follows:
- 5.13.12 *"The Thames Valley NCA is dissected by major transport links that connect London to the west, including the M4...Major roads (such as the M4...), Heathrow Airport and railways all contribute to the wealth of the area, but also give it a feeling of patchiness. The areas around these routes are surrounded by storage facilities and industrial units, which add to the desultory feel."*
- 5.13.13 We consider that this quote does not fully reflect the diverse nature of the landscape through which the proposed development passes, including suburban and urban settlements, fragmented agricultural land, commons, woodland and mineral workings. Nevertheless, the M4 with its fairly continuous stream of traffic is a significant and established feature of the NCA.
- 5.13.14 The Applicant adopts the criteria of IAN 135/10 in assessing the sensitivity of receptors. We acknowledge the impact which the M4 currently has on the landscape through which it passes, and the extent to which it impacts upon the visual amenity of large numbers of residents, and users of recreational areas and PRoW in its current mode of operation. This is the baseline against which the landscape

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<sup>66</sup> As defined by Natural England in NCA profile 115 Thames Valley

and visual amenity impacts of the construction and operation of the proposed development are assessed.

### **Summary of impacts**

- 5.13.15 A landscape and visual impact analysis is set out for each of the proposed development links<sup>67</sup>, with reference to local LCAs, and summarised in Table 8.2 [APP-148]. In terms of the significance of residual effects on the landscape as a result of the construction and operation of the proposed development, these are mainly neutral to slight adverse, with some moderate adverse effects. Since the M4 is already a part of the landscape, we consider that the proposed development would not change the overall characteristics of the landscape.
- 5.13.16 The significance of residual effects in terms of visual amenity range from no visual receptors affected to large adverse effects for some residential occupiers. We identify in this summary those locations in which the effects either during construction or operation are assessed to be moderate to large adverse in terms of landscape or visual amenity.
- 5.13.17 **Junction 12 to 11**: this link is divided between the area within the North Wessex Downs AONB and the rest of the link which is outside the AONB. During construction the effect on the AONB landscape is expected to be slight adverse, reverting to neutral once the proposed development is in operation. In terms of visual amenity, for a temporary period there would be a moderate to large adverse effect for residential occupiers within the Calcot area of Reading. These are the result of construction with the removal of local vegetation, the installation of gantries on embankment, and the introduction of CC 2. During operation the impacts are expected to be similar to the current, baseline position with no residual effect on visual amenity.
- 5.13.18 Outside the AONB a moderate to large adverse effect is expected on visual amenity for the residents of properties in Calcot. That effect on residents is expected to reduce to neutral during operation as a result of woodland, tree and shrub planting, leaving a slight adverse effect on users of PRow within the rural area.
- 5.13.19 **Junctions 11 to 10**: during construction a temporary slight to moderate adverse visual effect is identified for residents within the urban area of Whitely Wood and Winnersh, and a temporary major adverse effect for residents in Mill Lane and Sindlesham. These impacts result from construction impacts with local vegetation removal, the installation of gantries on embankment and the realignment of the off slip at Junction 10. With the presence of gantries either on embankment or in close proximity to residential properties, as a result of woodland edge planting, and other tree and

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<sup>67</sup> The length of motorway between each junction.

shrub planting to replace lost vegetation, the effect during operation is considered to reduce to slight adverse for residents in Whiteley Wood, Sindlesham and Winnersh and two rural dwellings in Mill Lane. The effect would also be slight adverse for users of PRoW in the rural area.

- 5.13.20 **Junctions 10 to 8/9:** during both the construction and the operation of the proposed development, slight adverse to moderate adverse visual effects are identified for the users of the PRoW in the vicinity of Stud Green Access Overbridge as a result of the construction and continuing presence of gantries. Mitigation for the operational phase would be through tree and shrub planting to replace lost vegetation which would reduce the long term effects to slight adverse.
- 5.13.21 **Junctions 8/9 to 7:** moderate adverse effects on landscape and moderate to large adverse visual effects for residents at Bray Wick, Bray and Dorney Reach, and users of PRoW including the Thames Path and National Cycle Route 4 are identified as a result of construction impacts. These include works to the gas main, overbridge realignments, embankment strengthening, vegetation removal, installation of gantries and CC 5. Once the proposed development is operational, woodland and new tree and shrub planting is expected to reduce a moderate adverse impact on landscape and visual amenity to slight adverse over time.
- 5.13.22 **Junction 7 to 6:** construction impacts resulting from overbridge realignment and vegetation removal are expected to result in moderate adverse visual amenity effects on residents in Mercian Way, Two Mile Drive and Wood Lane, and users of the Mercian Way recreation Ground and Wood Lane PRoW. These effects are expected to reduce to slight adverse then neutral during operation as a result of woodland edge, tree and shrub planting to replace lost vegetation.
- 5.13.23 **Junction 6 to 5:** construction impacts resulting from CC 8, overbridge realignments, earthworks strengthening and new gantries are expected to result in moderate adverse impacts on the landscape in Datchet. In terms of visual amenity the construction impacts are expected to have moderate adverse to major adverse visual amenity impacts on residents in Spackmans Way, B3027, Ragstone Road, Winvale, and (Datchet Meadows) off B376, Datchet Road (Chalvey) and Sovereign Heights, Regency Court on Grampian Way (Langley), and on users of the Jubilee River path, National Cycle Route 61 and Herschel Park (Chalvey).
- 5.13.24 During operation there would be a continuing presence of gantries such as G4-16 on embankment. Woodland and tree and shrub planting would replace the lost vegetation and during the operation of the proposed development the impact on the landscape is expected to reduce to neutral, and on visual amenity to moderate adverse reducing over time to slight adverse or neutral, apart from the residents at Winvale (Chalvey) where the effect is expected to remain at moderate adverse.

- 5.13.25 **Junction 5 to 4b:** construction impacts resulting from overbridge realignments and CC 9 with associated site clearance are expected to result in moderate adverse visual amenity effects on residents in Trent Way, off Sutton Lane (Brands Hill), Little Sutton Lane, Old Slade Lane, The Poynings, at the south edge of Richings Park, and users on PRow including the Colne Valley Trail in the vicinity of Old Slade Lane. A gantry which is close to residential properties would be removed, but other gantries would remain on embankments. With woodland edge and tree and shrub planting to replace lost vegetation, during operation the effects on visual amenity are expected to reduce over time to slight adverse, with slight beneficial for one residential occupier.
- 5.13.26 **Junction 4b to 4:** construction impacts resulting from installation of gantries and ERA, Junction 4 eastbound off-slip road realignment and associated site clearance are expected to result in moderate adverse visual amenity effects for residents of Little Bentley, The Brambles, Wordsworth Way, Keats Way and Vine Close (West Drayton), and on users of the footbridge at chainage 15+450.000. Gantries including G2-11, G2-07 and G2-04 would remain in close proximity to residential properties. With tree and shrub planting to replace lost vegetation the effect is expected to remain at moderate adverse in winter views from properties in Keats Way (West Drayton), reducing to slight adverse in winter views from Little Bentley (West Drayton).
- 5.13.27 **Junction 4 to 3:** construction impacts resulting from installation of gantries and associated site clearance and creation of CC 11 are expected to result in moderate adverse effects on visual amenity for residents of Bourne Avenue, Skipton Drive, Moston Close, Wilkins Close and Cranford Drive (Hayes), and users of the Bourne Farm Recreation Ground, Cherry Lane Cemetery, the hotel on Shepiston Lane and Sam Philp Recreation Ground. There would be the removal of one gantry close to residential properties at Moston Close (Hayes) providing a slight beneficial visual amenity effect, whilst new gantries would remain during operation close to residential properties. With woodland planting to replace lost vegetation the effect on visual amenity is expected to reduce to slight adverse.
- 5.13.28 Mitigation for all construction effects is identified to be primarily through construction best practice to minimise disruption. Retained vegetation, including trees subject to Tree Preservation Orders (TPO) which lie within the Order limits would be protected.
- 5.13.29 Additional provision is made in some areas, such as between Junctions 4 and 3 where trees subject to TPO within conservation areas and the intervening tree belt between residential properties at the south edge of Hayes would add to the mitigation of impacts. Construction best practice would be secured through the operation of the CEMP, the latest version of which was submitted in March 2016 [REP9-002] and which is subject to final submission and approval under Requirement 8 of the DCO.

## **ISSUES ARISING**

### **Night-time impacts**

- 5.13.30 Night-time impacts are assessed using the Institution of Lighting Engineers (now referred to as the Institution of Lighting Professionals (ILP)) guidelines which identify Environmental Zones that define the broad night-time characteristics of areas in terms of relative brightness or darkness. Environmental Zones relating to each of the LCAs are identified on Drawing 8.4 [APP-225 to 228, sheets 1-16]. Lighting columns would be retained or replaced in their current locations for the operation of the proposed development and no new lighting columns would be introduced. As a result the Applicant finds that the broad night-time landscape characteristics would not be affected by the proposed development.
- 5.13.31 In addition, LED luminaires would be used, which have the potential to provide some benefit in terms of a reduction in light spillage. A reduction in light spillage would reduce the extent of the existing impact of motorway lighting on the surrounding area.
- 5.13.32 In the course of the Examination, the Applicant revised the height of lighting columns such that existing columns which are currently 12m or 15m in height may be increased in height by up to 1m. An assessment of the visual impact of the change is set out by the Applicant [REP7-020]. We agree that the change in height of the columns would be difficult to distinguish from within the surrounding area either by day or by night, and that it would not affect the extent of the ZVI.
- 5.13.33 We note that the lighting for the proposed development would reflect the positioning of existing lighting on the M4, and the increase in the height of lighting columns would not be significant. Furthermore, with the use of LED luminaires there is the potential for a reduction in the effects of night-time motorway lighting during the operation of the proposed development. We therefore find that the lighting strategy proposed for the operation of the proposed development would not have any significant effect in terms of either the landscape or visual impact.
- 5.13.34 Concrete batching plants with associated cement silos some 15m in height are likely to be required within CCs 2, 5 and 11 [REP3-009]. The Applicant states that the chosen locations are those in which the potential visual night-time effects on adjacent high sensitivity receptors would be minimised. The Applicant confirms that, in undertaking the LVIA, consideration was given to a range of facilities and operations which may occur within CCs for a proposed development of this nature, as identified in the Engineering and Design Report [APP-096]. The batching plant and associated silos form a part of the Night-Time Lighting Assessment [REP3-009] and this includes carrying out a review of the ZVI at these compounds to ensure that it covers all the receptors with a potential view to the

batching plant. As a result of this assessment, the Applicant considers that the ZVI does not need to be extended.

- 5.13.35 All night-time lighting, including that used for the cement silos, would be controlled through the CEMP, as secured through Requirement 8 of the DCO. Consultation would be required with the relevant local authorities before the provisions in the CEMP are finalised. We accept that there may be some disturbance to nearby residents as a result of the night-time lighting to construction compounds. However, we are satisfied that such disturbance would be minimised as far as practicable. Furthermore, any disturbance would be limited to the temporary period of construction.
- 5.13.36 We are satisfied that the lighting strategy for the proposed development during operation would be unlikely to introduce any further intrusion of night-time lighting into the surrounding area. Indeed, the use of LED luminaires may reduce the extent of night-time illumination. In addition, we find that any disturbance from night-time lighting during the construction of the scheme would be temporary, and controlled as far as practicable through the provisions of the CEMP.

#### **Off-site planting**

- 5.13.37 The potential for some offsite planting was discussed through the Examination, and supported in particular by SBDC [REP5-011], SBC [REP5-014] and LBHill [REP5-015]. LBHill produced a plan of Council owned land [REP4-033, App C] which could be made available for off-site planting, and Cranford Park is also suggested.
- 5.13.38 The Applicant suggests that off-site planting could be achieved through the use of s253 of the Highways Act, but this would impact on land ownerships and is considered by LBHill to be unduly onerous. Furthermore, such a mechanism would not be linked in any way to the provisions of the DCO and therefore not capable of being enforced through PA2008. LBHill puts forward the potential for a Development Consent Obligation. With such a mechanism in place, landowners could be offered the opportunity to accept planting within their grounds.
- 5.13.39 However, this is not an approach acceptable to the Applicant. The Applicant considers that adequate landscape mitigation would be provided either within the M4 corridor or on land subject to compulsory acquisition within the Order limits without the need to enter any agreement with local authorities or residents to secure offsite planting for the proposed development [REP5-005.5].
- 5.13.40 The clearance of existing vegetation would be required where construction activities take place [REP7-005] although existing vegetation would be retained wherever possible. The areas identified for permanent vegetation removal represent a small proportion of the overall length of the proposed development [REP7-013]. Landscape

mitigation proposals are based on the preliminary design drawings in the Engineering and Design Report [APP-096], with details to be set out within the Environmental Masterplan (EMP) as revised during the Examination [REP8-087 to REP8-117].

- 5.13.41 Comparing the vegetation clearance plans [APP-102 to APP-106] with the final version of the EMP, wherever possible the Applicant is providing replacement landscaping/visual screening. This is largely in the form of open grassland, shrubs and trees. The only areas where vegetation would be permanently lost are to accommodate replacement or extended bridges, new gantries and ERAs.
- 5.13.42 Indeed, within the EMP, a number of areas shown for landscaping and visual screening are larger than those shown on the vegetation clearance plans, and frequently extend up to the Order limits. These additional areas would provide for some enhancement in terms of landscape and visual amenity as a result of the proposed development. Within the areas closest to sensitive receptors, vegetation is proposed to be replaced on a like for like basis. We are therefore satisfied that the Applicant is seeking to keep vegetation clearance to a minimum, and undertake new landscape treatment wherever possible.
- 5.13.43 In terms of impact on landscape and visual amenity, the evidence supports the Applicant's assessment that in areas apart from residential properties at Winvale (Chalvey), all impacts would be reduced to slight adverse or neutral over time. The impacts on that property could only be reduced through the repositioning or removal of Gantry G4-16, rather than through the introduction of off-site planting. We therefore find that there is no justification to require off-site planting to be carried out in order to mitigate the effects of the proposed development. Furthermore, the siting of gantries is an integral element in the design of the proposed development. The moderate adverse impact identified in this location would not justify a requirement to change the siting of the gantry.

### **Trees subject to TPO**

- 5.13.44 Article 39 of the DCO would provide the Applicant with powers to fell or lop any tree subject to a TPO. Schedule 8 of the DCO identifies all trees subject to a TPO which may be affected, and sets out the measures which would be taken to protect them. The general approach is to avoid damage or loss of TPO trees through detailed design wherever possible. There is just one location identified in Schedule 8 at which felling would not be avoided. This relates to the felling of a small part of the TPO area where it overlaps with the Order limits due to the widening of the Thames Bray underbridge.
- 5.13.45 The loss of trees due to the widening of the Thames Bray underbridge would have a harmful impact on the visual amenity of residents within that location, and for users of the adjacent caravan park. New planting

is proposed in this location which would provide mitigation over time and compensate for the loss of the TPO trees [REP8-105].

- 5.13.46 It is during the construction of the proposed development that any impact on trees subject to a TPO is likely to fall. The CEMP [REP9-002] requires the contractor to take steps to avoid the felling of TPO trees wherever possible. We are satisfied that TPO trees would be retained wherever possible and that the provisions for new planting within the proposed development would provide some compensation for any loss of important trees.

### **Cranford Park**

- 5.13.47 We consider the impacts of the proposed development on Cranford Park in the context of the setting of the heritage assets within the Park. The Park is given a moderate value (sensitivity) in the Applicant's assessment. In terms of the landscape and visual amenity of the Park where it is located to the south of the proposed development boundary, it is reasonably well screened by existing planting and other boundary treatments such as the existing tall wall along part of its northern boundary. Since the M4 rises on to embankment as it passes the Park, there are some views of traffic, and new gantries would be subject to glimpses in some parts of the Park in particular during the winter months. Traffic would also be closer to the Park, so there could be increased glimpses of moving vehicles, in particular tall lorries, as they pass the Park.
- 5.13.48 As stated in terms of the historic environment, we consider the main impact of the M4 on Cranford Park to relate to the noise environment. Although there would be some changes in terms of visual amenity, we accept that the impact of the proposed development on the visual amenity of the Park would not be significantly greater than the impact of the existing motorway.

### **Myrke allotments**

- 5.13.49 The Myrke allotments abut the M4 to the east of the Recreation Ground overbridge. Slough Allotment Federation on behalf of users of the allotments is concerned about the effect of traffic using the hard shoulder and passing closer to the allotment plots [REP2-024].
- 5.13.50 The existing 2m acoustic barriers at the far end of the site would be replaced where necessary, but areas of vegetation which currently provide some screening during the summer months alongside the motorway would be largely lost in view of the lack of space for new planting. Furthermore, gantry G4-12 would be a new element in views from the allotments [REP5-004.1].
- 5.13.51 We have concerns that the visual amenity of users of the allotments would deteriorate as views of traffic passing in closer proximity to the site are opened up. However, the Applicant proposes to upgrade the proposed boundary treatment from safety fencing to a 2m high close boarded fence [REP5-004.1], and during construction the contractor



would be expected to consider whether any of the existing vegetation could be retained in accordance with the requirements of the CEMP [REP9-002]. We find that the provision of the close boarded fence would provide some benefit to users of the allotments in visual terms.

### **Loss of residential privacy**

- 5.13.52 With the use of the hard shoulder by traffic, there are some concerns that drivers of taller vehicles might have views into the upper windows of properties which adjoin the M4. The Applicant identified two locations where such a situation might occur [REP5-004, E4.2.5], and there are proposals in the ENMS [REP8-014] which have been added to the EMP to raise the height of acoustic fencing to mitigate such an occurrence.

### **Richings Park**

- 5.13.53 We consider the submissions of the Buckinghamshire Garden Trust in relation to impacts on the Historic Environment and take the view that the changes to the M4 in the proposed development would not significantly affect the visual amenity or landscape setting of Richings Park.

### **Acoustic Panels**

- 5.13.54 LBHill welcomes proposals for increasing the height of acoustic panels in order to improve noise mitigation. However, it raises concerns as to the impact on visual amenity and suggests the use of acoustic panels with clear upper panels, or with provision for climbing plants to soften the impact of high barriers [REP5-015].
- 5.13.55 The preference of the Applicant is to use timber barriers as these have been tried and tested over a number of years. Consideration is being given to the use of alternative forms of barriers, and clear panels may be of value to reduce potential shadowing effects in some gardens. However, whilst clear panels would reduce screening of views from the motorway, they would be difficult to clean and may become obscured by dirt [REP7-168].
- 5.13.56 In the circumstances of the proposed development, we note that integration of the timber panels would be achieved through the retention of existing vegetation, or the replacement of lost planting. The planting strategy together with the colouring and weathering properties of the timber fence panels would help to soften and over time integrate the timber barriers. We therefore consider the materials proposed for the noise barriers to be an appropriate.

## **SUMMARY AND CONCLUSIONS**

### **Landscape**

- 5.13.57 In terms of the impact on the landscape through which the proposed development would pass, it is primarily those areas in close proximity

to the Order boundaries which would be affected by the proposed development during construction and operation. The main changes which would affect the landscape in these locations would result from the presence of construction compounds and construction activities which take place outside the confines of the motorway, with the consequent loss of trees and other vegetation. Having regard to the existing character of this area which is heavily influenced by the presence of the M4, we generally accept the Applicant's assessment of the significance of the effects in the construction phase, which would range from slight adverse to large adverse.

- 5.13.58 Once the proposed development is complete and in operation, the main changes would result from: the implementation of ALR whereby the buffer provided by the hard shoulder between traffic and the surrounding area would be lost; the impact of larger under and over bridges where replacement or rebuilding is required to provide a hard shoulder; the presence of ERAs which in places would be located outside the current confines of the motorway; and the presence of larger and increased numbers of gantries for the length of the proposed development. As a result of these changes we consider that the effect would be to increase the dominance of the M4 within the landscape as it passes through its immediate surroundings, with the significance of effects ranging from neutral to moderate adverse.
- 5.13.59 The Applicant has fulfilled the requirement for an assessment of the landscape effects in NPSNN paragraph 5.144. Nevertheless, having regard to the strong influence which the M4 currently has on its immediate surroundings, and the quality of the landscape and planting proposals in the EMP, we find that the impact on the landscape is not so significant as to weigh against the proposed development.

### **The AONB**

- 5.13.60 Clearly any impact on the AONB would be confined to areas in close proximity to the M4, and in these areas the M4 is already present within the landscape. We agree with the Applicant's assessment that the landscape and visual amenity impact on the AONB, including the effects of lighting of the proposed development during operation, would be neutral.
- 5.13.61 In view of the economic benefits of the proposed development, the absence of alternative geographical options for meeting the need, and the minimal effect on the scenic beauty or function of the AONB, we consider that the tests in NPSNN paragraph 5.150 are met. Furthermore with the high standard of the proposals in the Environmental Masterplan, the landscape and scenic beauty of the AONB would be preserved.

### **Visual impact**

- 5.13.62 In terms of visual impact, there would be some moderate to large adverse impacts for some residential occupiers located close to

construction compounds and other construction sites for the length of the proposed development. These would be temporary, and the Applicant would seek to mitigate harmful effects as far as possible through the provisions of the CEMP [REP9-002]. We are satisfied that the extent of visual impacts which are anticipated from the construction of the proposed development would be reasonable and proportionate having regard to the nature of the proposals.

- 5.13.63 Once the proposed development is in operation, some moderate adverse visual impacts would remain as a result of the siting of new gantries and from the use of the hard shoulder as a permanent running lane. Over time, as new vegetation matures, many visual impacts would be reduced. We consider those moderate adverse impacts that may remain to be reasonable and proportionate to the proposed development.
- 5.13.64 We find that the assessment of visual impacts meets the requirements of NPSNN paragraph 5.144.
- 5.13.65 Overall we conclude that in terms of landscape and visual impacts, the proposed development meets the requirements of the NPSNN, the NPACA 1949, and the CRWA 2000 in respect of the AONB.

## **5.14 POLLUTION CONTROL AND OTHER ENVIRONMENTAL REGULATORY REGIMES**

### **POLICY BACKGROUND**

- 5.14.1 The NPSNN addresses pollution control and other regulatory regimes in paragraphs 4.48 to 4.56, in which it states that issues relating to discharges or emissions from a proposed project may be subject to separate regulation under the pollution control framework or other consenting and licensing regimes. Relevant permissions would need to be obtained for any activities within the development that are regulated under those regimes before the activities can be operated.
- 5.14.2 The NPSNN goes on to state that the ExA and SoS should focus on whether the development itself would be an acceptable use of the land, and on the impacts of that use, rather than the control of processes, emissions or discharges themselves. They should assess the potential impacts of processes, emissions or discharges to inform decision making, but should work on the assumption that in terms of the control and enforcement, the relevant pollution control regime will be properly applied and enforced. Decisions under the PA2008 should complement but not duplicate those taken under the relevant pollution control regime.
- 5.14.3 The SoS should not refuse consent on the basis of regulated impacts unless there is good reason to believe that any relevant necessary operational pollution control permits or licences or other consents will not subsequently be granted.

## **APPLICANT'S APPROACH**

- 5.14.4 In the Explanatory Memorandum (EM) to the draft DCO [REP3-013], the Applicant identifies the potential sources of pollution in Appendix A: *Table of mitigation* [REP5-002.25], together with the potential impact/risk, the mitigation or enhancement, and the method of delivery of the mitigation.
- 5.14.5 The identified construction pollution sources and mitigations are due to:
- dust or water runoff to trees subject to tree preservation orders;
  - dust created during construction, storm water runoff or accidental spillages from construction sites;
  - accidental incursions of polluted water into the Root Protection Areas (RPA) of trees and airborne particulates;
  - pollution to watercourses which are suitable for use by water voles;
  - direct loss of otter habitats;
  - migration of contaminants from contaminated earthwork fills employed during embankment construction;
  - degradation of existing higher grade soils on land adjacent to the highway boundary; and
  - contamination to offsite soils or aquifers.
- 5.14.6 The identified operational pollution sources and mitigations are due to:
- continuing pollution of on-site soils;
  - drainage contaminated with vehicle emission particulates and grit-salt spreading residues, and major fuel/chemical spillages following traffic accidents;
  - material resources and waste handled in a manner which poses a risk of harm to human health; and
  - reduced water quality due to inadequate emergency response procedures.
- 5.14.7 With regard to the method of securing the delivery of the mitigations, the Applicant refers to DCO Requirements 3, 7 to 9 and 11 to 14, as well as the CEMP [REP9-002] Sections 3, 5, 6, 8, 9, 10 and 14, the SWMP [APP-294], the MMP [APP-295] and the DSR [REP5-002.18]. The CEMP is secured through DCO Requirement 8, the SWMP and MMP are secured through the CEMP and the DSR is secured through DCO Requirement 14.

### **Other consents**

- 5.14.8 In *Details of other consents and licences* [APP-083], a number of necessary consents are recorded:
- (1) Protected Species Licence in respect of badgers, Conservation of Habitats and Species Regulations 2010 through NE as the consenting authority;

- (2) Badger Disturbance Licence, Protection of Badgers Act 1992, through NE;
- (3) European Protected Species Licence in respect of bats, Conservation of Habitats and Species Regulations 2010, through NE;
- (4) European Protected Species Licence in respect of great crested newts, Conservation of Habitats and Species Regulations 2010, through NE;
- (5) Licence to dispose of Japanese knotweed, giant hogweed and Indian balsam, Environmental Protection Act 1990, through EA;
- (6) Consent to obstruct ordinary watercourses under Environmental Permitting Regulations (EPR) 2010 through EA;
- (7) Consent to discharge into an available watercourse in respect of trade effluent during construction under EPR 2010 through EA;
- (8) Hazardous waste consent (verges of motorway and asbestos) under Waste (England and Wales) Regulations 2005 through EA;
- (9) Flood Defence Consent Water Resources Act 1991 through EA;
- (10) Planning permission for construction of badger sett for relocated badgers, Town and Country Planning Act 1990, through relevant Local Authority;
- (11) Consent for work on construction sites, Control of Pollution Act 1974, through relevant Local Authority.

## **ISSUES ARISING**

### **Noise pollution during construction**

- 5.14.9 Noise pollution during construction will be controlled through Section 61 of the Control of Pollution Act 1974 as stated in Sections 12.4 and 5.2 of the CEMP which is secured through DCO Requirement 8, *CEMP*.

### **European Protected Species (EPS)**

- 5.14.10 In Section 5.9 (Biodiversity and Ecological Conservation), we refer to the fact that a "letter of no impediment" for the bat licence, and an "in principal decision letter" for the badgers licence had not been received from NE by the end of the Examination. These are matters on which the SoS may wish to satisfy himself.

### **Other consents**

- 5.14.11 In accordance with NPSNN paragraph 4.50, the Panel is working on the assumption that, in terms of the control and enforcement, the relevant pollution control regime will be properly applied and enforced.

## **SUMMARY AND CONCLUSIONS**

- 5.14.12 We find that all pollution and environmental impacts would be subject to control through the DCO and the relevant pollution and environmental regulations, in accordance with NPSNN paragraphs 4.48 to 4.56.

## **5.15 SOCIO-ECONOMIC IMPACTS**

### **POLICY BACKGROUND**

- 5.15.1 Social and economic factors are referenced at numerous points in the NPSNN, notably:
- (a) the need for development of national networks to better support social and economic activity - paragraphs 2.1 to 2.29;
  - (b) the improvement of social and environmental impacts - paragraph 3.2 onwards;
  - (c) access to open spaces - paragraph 5.162 onwards; and
  - (d) impacts on transport networks - paragraphs 5.202 to 5.212.
- 5.15.2 The NPSNN in Section 2: *Summary of need*, summarises the Government's vision and strategic objectives for the national networks, which include providing support for economic activity and improving the overall quality of life.
- 5.15.3 The potential for economic, social and environmental benefits has to be weighed against any adverse impacts (NPSNN paragraph 4.3). Matters to be taken into account include:
- potential benefits, including the facilitation of economic development, job creation, housing and environmental improvement, and any long-term or wider benefits; and
  - potential adverse impacts, including any longer-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts.

### **APPLICANT'S APPROACH**

- 5.15.4 In the Socio-Economic Report (SER) [APP-090], the Applicant addresses the socio-economic impacts of the proposed development at both regional and local level. Its main findings are also considered within ES Chapter 14: *Community and private assets* [APP-154].
- 5.15.5 The proposed development passes through 11 local authority areas [APP-090, Figure 3.1], stretching from West Berkshire in the west, to the London Boroughs of Hillingdon and Hounslow in the east. The Hillingdon and Hounslow boroughs fall within the area subject to the London Plan, providing other socio-economic considerations. The Applicant provides in ES Chapter 14 [APP-154] and in the SER [APP-090] detailed baseline data on a link by link basis in respect of the main socio-economic features for each area. Socio-economic impacts are also included in ES Chapter 13: *Effects on all travellers* [APP-153].
- 5.15.6 The Applicant summarises the socio-economic impacts of the proposed development in Appendix B: *Appraisal summary table to the SER* [APP-090] under four main headings:
- economic;
  - environmental;

- social; and
- public accounts.

5.15.7 We are satisfied that the Applicant provides an adequate assessment of the socio-economic impacts of the proposed development in the SER, and do not repeat the findings of that assessment here.

### **ISSUES ARISING**

5.15.8 The main issue of concern to IPs relates to minimising the negative social and environmental impacts of the proposed development.

### **Minimising negative social and environmental impacts**

#### ***Access during construction***

5.15.9 We have considered access during construction under Traffic and Transport in Section 5.2. We recognise that temporary land-take would be required from community, residential, commercial and agricultural assets during the construction period, which would have an impact on accessibility to a range of community assets. To minimise social impacts and avoid travel delay, the Applicant has considered the availability of diversion routes and the implementation of diversion measures, to be discussed and agreed between the contractor and the relevant local authorities. We find that the Applicant has adopted a reasonable and proportionate approach through the CEMP [REP9-002] secured through Requirement 8 and the CTMP [REP8-010] secured through Requirement 18.

5.15.10 We have addressed impacts on NMUs in Section 5.2 of this report. We recognise that some disruption to local rights of way and road networks would occur, and that this would cause inconvenience and disruption to local users. However, impacts on users of these roads and rights of way would be mitigated as far as reasonably possible through the provision of properly signposted diversion routes, to be discussed and agreed between the contractor and the relevant local authorities. We find that the mitigation measures in the CEMP [REP9-002], secured by DCO Requirement 8 are sufficient.

#### ***Economic and Social Impacts***

5.15.11 SBDC [REP2-049] asserts that the proposed development would not improve the quality of life for the local residents in South Buckinghamshire who are in close proximity to the M4. The Council has concerns for the residents and businesses of the Huntercombe Conservation Area and Burnham Abbey where additional construction noise and vibration pollution would - in the Council's view - have an impact on the quality of life. The Applicant states why - in its view - this is not the case [REP3-014.6].

5.15.12 In the SoCG between the Applicant and SBC [REP8-004], SBC states that the proposed development is welcomed under the Thames Valley Berkshire Strategic Economic Plan and featured prominently in its

Implementation Plan, but that the proposed development should include screening, noise reduction and air quality measures.

- 5.15.13 Support is given for the economic benefits of the proposed development from the RAC [REP2-029] in terms of offering a cost effective solution that would expand capacity, alleviate congestion, and control the flow of traffic, whilst minimising environmental impact; making journeys for road users more reliable, and with the potential to improve the safety of users of the motorway.
- 5.15.14 We have assessed noise and vibration impacts in Section 5.4 of this report, where we find that the Applicant has adopted a consistent, reasonable and proportionate approach along the proposed development, with beneficial impacts in most areas once the proposed development is in operation. We have addressed air quality in Section 5.7, where we have proposed an additional DCO requirement to provide mitigation.
- 5.15.15 SBC [REP8-004] does not consider that the Applicant has provided in the design of the proposed development sufficient evidence that it has taken "*reasonable opportunities to deliver environmental and social benefits*" nor used "*reasonable endeavours to address the needs of cyclists and pedestrians*" in line with the aims of the NPSNN paragraphs 3.3 and 3.17. The Applicant does not agree, and states that it has both considered, and would deliver, environmental and social benefits as part of the proposed development, as set out in Chapter 13: *Effects on all travellers*, of the ES [APP-153].
- 5.15.16 We have considered NMUs (including cyclists and pedestrians) in Section 5.2, and find that sufficient mitigation is included through the CEMP [REP9-002] secured by Requirement 8, and CTMP [REP8-010] secured by Requirement 18.
- 5.15.17 SBC is also concerned that increases in traffic as a result of increasing populations and the continued development of housing and employment areas, could generate additional traffic movements on the local road network. SBC calls for mitigating measures in the form of a "smarter choices package" to promote sustainable modes of local travel. The Applicant rejects this call on the grounds that it falls outside the scope of the proposed development. We have assessed alternative modes of transport in Section 5.2 of this Chapter, and find in favour of the Applicant on this matter.

## **SUMMARY AND CONCLUSIONS**

- 5.15.18 A number of the areas considered by the Applicant and raised by IPs under socio-economic impacts have been addressed in other Sections of this Chapter - safety/accidents (Section 5.3), noise (Section 5.4), air quality (Section 5.7), water environment (Section 5.8), biodiversity (Section 5.9), historic environment (Section 5.12) and landscape (Section 5.13) - and will not be considered further here.



- 5.15.19 The proposed development would provide more motorway capacity at an economically advantageous cost to the tax payer by comparison with alternatives, with less congestion and shorter delays, in accordance with NPSNN Section 2. This would lead to economic benefits to road users in terms of less wasted time and lower journey costs, as well as social benefits in terms of more pleasant journeys and less stress. Traffic forecasts also predict that the proposed development would relieve traffic on local road networks once the proposed development is operational.
- 5.15.20 With regard to the less direct impacts, SBC asked for consideration of transport mode diversion from roads to public transport, but we find that this consideration is not within the remit or responsibility of the proposed development, the brief of which is to provide extra motorway capacity.
- 5.15.21 In so far as it falls within the powers and duties of the Applicant to do so, we conclude that the proposed development would meet the aims of the NPSNN in respect of the support of social and economic activity as sought by the relevant paragraphs of the NPS.

## **5.16 COMBINED AND CUMULATIVE IMPACTS**

### **POLICY BACKGROUND**

- 5.16.1 The NPSNN paragraphs 4.3 to 4.4 require the decision maker to take into account any longer-term and cumulative adverse impacts of a proposal.
- 5.16.2 The NPSNN gives guidance on the assessment of cumulative environmental effects in paragraphs 4.15-4.17, while paragraphs 4.82 and 5.223 deal with pollution, health and water resources.

### **APPLICANT'S APPROACH**

- 5.16.3 In accordance with the requirements of the NPSNN, and of the EIA Directive and Schedule 4, Part 1 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (EIA Regulations), the Applicant undertakes a cumulative impact assessment of the environmental effects of the proposed development - in the ES Chapter 16: *Combined and cumulative impacts* [APP-156].
- 5.16.4 The Applicant states that, in the absence of a definition of the term 'cumulative' in respect of impacts or effects in either the EIA Directive or the EIA Regulations, it bases its assessment on the DMRB Volume 11<sup>68</sup>, Section 2, Part 5 which identifies two types of cumulative impact:

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<sup>68</sup> <http://www.standardsforhighways.co.uk/DMRB/vol11/index.htm>

- the combined action of different environmental topic-specific impacts upon a single resource/receptor, which are termed 'in combination' effects; and
- the combined action of a number of different projects, cumulatively with the project being assessed, on a single resource/receptor, which are termed 'cumulative' effects. This could include multiple impacts of the same or similar type from a number of projects upon the same receptor/resource.

5.16.5 The Applicant addresses NPSNN paragraphs 4.3 and 4.15-17 in ES Chapter 16: *Combined and cumulative effects* [APP-156], and splits its assessment into 'in combination' effects and 'cumulative' effects. The in-combination effects assessment covers noise, air quality and visual impact (see Sections 5.4, 5.7 and 5.13). The main issue raised in relation to cumulative effects relates to the major developments which should be taken into account in the assessment and this is the focus of this section of the report.

5.16.6 In determining which major developments should be included in the assessment, the Applicant follows the advice set out in the Planning Inspectorate's Scoping Opinion<sup>69</sup> to consider major developments in the area that are:

- under construction;
- permitted application(s) not yet implemented;
- submitted application(s) not yet determined;
- all refusals subject to appeal procedures not yet determined;
- projects on the National Infrastructure programme of projects; and
- projects identified in the relevant development plan (and emerging development plans - with appropriate weight being given as they move closer to adoption) recognising that much information on any relevant proposals would be limited.

5.16.7 The Applicant provides a list of the developments included in the cumulative impact assessment in the ES [APP-356 Appendix 16.1], which it states was last updated in January 2015. The Applicant summarises the cumulative effects during construction and operation on all areas considered in Table 16.4, with reference to ES Chapters 6-15 [APP-146 to APP-155].

5.16.8 According to the Applicant, slight adverse cumulative effects are anticipated during the construction of the proposed development in relation to materials and effects on all travellers. However, overall it is predicted that the construction and operation of the proposed development would not lead to overall significant cumulative effects.

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<sup>69</sup> [http://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010019/1.%20Pre-Submission/EIA/Scoping/Scoping%20Opinion/140919\\_Scoping%20Opinion%20Report.pdf](http://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010019/1.%20Pre-Submission/EIA/Scoping/Scoping%20Opinion/140919_Scoping%20Opinion%20Report.pdf)

## ISSUES ARISING

- 5.16.9 The Panel considers that the cumulative effects during construction of the proposed development together with other large infrastructure schemes which may be under construction in the vicinity of the proposed development within the same time frame should be included in the cumulative assessment. These are in particular HS2 and the relocation of the HEx. These major developments are not included in the Applicant's list for the cumulative impact assessment in ES Appendix 16.1 [APP-356].
- 5.16.10 In its submission [REP4-001] following the hearings in November 2015 [EV-009], the Applicant states the need to adopt a baseline date for the assessment of cumulative impacts. The Applicant states: "*In line with the TAG guidance, all developments considered to be 'near certain' or 'more than likely' were taken forward for inclusion in the core scenario of the traffic model. Those developments considered to be 'reasonably foreseeable' or 'hypothetical' were excluded from the core scenario*".
- 5.16.11 The Panel [PD-011] considers that HS2 and HEx are 'more than likely', because plans are at an advanced stage, and these projects should therefore be taken into account. A cumulative impact assessment should remain open to review over the period in which an application is proceeding through the consenting process. In this case, HS2 and HEx are projects which are within the final stages of the Hybrid Bill process<sup>70</sup>. Royal Assent might well be gained in time for the start of construction of the proposed development in 2017-18.
- 5.16.12 BCC [REP4-032] identifies the potential for construction overlaps in 2020. In particular, issues are raised concerning impacts on the A412, the A4007 and the M25. The construction period for HS2 would be from 2017 to 2025, and HEx would require relocation at an early stage in the construction timetable. BCC states [REP5-009] that it supports the ExA's position in relation to cumulative impact assessment.
- 5.16.13 SBC [REP5-014] states that it also supports the ExA's position, as does SBDC [REP5-011], which states that the Western Rail Link to Heathrow (WRLTH) proposal should also be included, since it is set to start in 2019 and the construction would be an additional impact along with the HS2, HEx and the proposed development.
- 5.16.14 Four councils together - LBHill, SBC, SBDC and BCC - provide a joint statement of cumulative developments [REP4-034.3], in which they tabulate the progress of four projects (WRLTH, HS2, HEx and Slough International Freight Exchange), the construction for which could proceed in parallel with the proposed development.

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<sup>70</sup> <https://www.gov.uk/government/collections/high-speed-rail-london-west-midlands-bill>

- 5.16.15 As a result of the Examination, the Applicant [REP5-004.01] includes paragraph 13.5.2 in an updated CEMP [REP5-002.3]. This paragraph outlines actions that the contractor would undertake should the construction programmes for other major infrastructure interact. The Applicant confirms that the relevant local planning authorities would be consulted on amendments to the CEMP and has amended Requirement 8(1) accordingly in the draft DCO [REP9-004].
- 5.16.16 The final version of the CTMP [REP8-010] specifies the procedures for traffic management during construction, including the establishment of a TMWG, which would include all key stakeholders. The CTMP commits the contractor to consult with the TMWG regarding traffic management issues. In these circumstances, we consider that adequate protection would be secured to ensure that construction traffic impacts are effectively mitigated.

### **SUMMARY AND CONCLUSIONS**

- 5.16.17 As a result of the Examination, the Applicant agreed to add paragraph 13.5.2 to the CEMP [REP9-002] to address concerns relating to traffic on the local road network, and to mitigate the effects of the proposed development on traffic in combination with the effects of the concurrent construction of any other major developments.
- 5.16.18 The Applicant also amended the DCO [REP9-004] Requirement 8 and Requirement 18 to secure consultation with relevant local authorities on the approval of the CEMP and of the CTMP. The CTMP in turn secures the establishment of a TMWG comprising all key stakeholders.
- 5.16.19 In the light of these changes, the Panel finds that the cumulative impacts of the proposed development and other concurrent developments have been properly considered, in accordance with NPSNN paragraphs 4.3 to 4.4 and 4.15 to 4.17.

## **5.17 IMPACT ON THE GREEN BELT**

### **POLICY BACKGROUND**

- 5.17.1 Elements of the application proposal lie within the designated Metropolitan Green Belt between Straight Mile overbridge, east of Junction 10, through to Junction 3 at Hayes. These areas lie within the local authority areas of WMBC, SBC, SBDC, BCC, LBHill, LBHo and the GLA.
- 5.17.2 As stated in the NPSNN paragraph 5.170, there is a general presumption against inappropriate development within Green Belts and such development should not be approved except in very special circumstances. The NPSNN points out that the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open, with the essential characteristics of Green Belts being their openness and their permanence (paragraph 5.164).

5.17.3 It is also recognised in the NPSNN (paragraph 5.178) that when located in the Green Belt:

*"national networks infrastructure projects may comprise inappropriate development. Inappropriate development is by definition harmful to the Green Belt and there is a presumption against it except in very special circumstances. The Secretary of State will need to assess whether there are very special circumstances to justify inappropriate development. Very special circumstances will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations. In view of the presumption against inappropriate development, the Secretary of State will attach substantial weight to the harm to the Green Belt, when considering any application for such development."*

5.17.4 Inappropriate development is defined in the NPPF at paragraphs 89 and 90 to which the NPSNN refers. Forms of development which may not be inappropriate include engineering operations and local transport infrastructure which can demonstrate a requirement for a Green Belt location, provided that they preserve the openness of the Green Belt and do not conflict with any of the purposes of including land in Green Belt. The five purposes of including land in Green Belt are set out in NPPF paragraph 80 as follows:

- to check the unrestricted sprawl of large built up areas;
- to prevent neighbouring towns merging into one another;
- to assist in safeguarding the countryside from encroachment;
- to preserve the setting and special character of historic towns; and
- to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

5.17.5 We consider the Applicant's assessment against the tests in the NNNPS and NPPF below.

#### **APPLICANT'S APPROACH**

5.17.6 The Applicant has made an assessment of the harm likely to be caused to the Green Belt in terms of the five purposes of the Green Belt in the Planning Statement submitted with the application [APP-089, paragraphs 5.2.169-176]. For the reasons set out by the Applicant, we accept that the proposed development would not undermine the following purposes: to check the unrestricted sprawl of large built up areas; to prevent neighbouring towns from merging into one another; and to preserve the setting and special character of historic towns.

5.17.7 Whilst encroachment on the surrounding countryside for an ALR scheme is limited to bridge widening, carriageway widening, reconfiguration of slip roads and ERAs, there would be an expansion of the motorway beyond its existing confines within the Green Belt. As a result we cannot agree that the proposed development would

contribute to the purpose of assisting in safeguarding the countryside from encroachment. Indeed there would be physical and visual encroachment into rural areas which are not at present a part of the M4 corridor, for example between Junctions 8/9 and 7 from the replacement of the overbridges at Ascot Road, Monkey Island, Marsh Lane and Huntercombe Spur and the widening of Thames Bray underbridge.

- 5.17.8 With regard to the aim to assist in urban regeneration by encouraging the recycling of derelict and other urban land, there is no evidence to suggest that the proposed development would do other than support the future economic growth of the region. This may provide some encouragement to recycling of derelict and other urban land, but we find the link between the proposed development and the fulfilment of this purpose to be tenuous since the proposed development does not in itself use derelict and other urban land.
- 5.17.9 In our view the economic benefits of the proposed development fall to be considered in the balance of circumstances to weigh against the harm to the Green Belt in the assessment of whether very special circumstances apply.

## **ISSUES ARISING**

### **Inappropriate development**

#### *Operational effects*

- 5.17.10 Turning to the tests for inappropriate development set out in the NPPF paragraphs 88-90, as a part of the strategic roads network we consider that the proposed development would not fall within the category of "local transport infrastructure", as suggested by the Applicant [APP-089 5.2.162]. However, we accept that any proposal to improve this part of the M4 would be able to demonstrate a requirement for a Green Belt location, which forms a part of the test under NPPF paragraph 90.
- 5.17.11 The proposed development would constitute a major engineering operation, which NPPF paragraph 90 states would not be inappropriate provided that it would preserve the openness of the Green Belt.
- 5.17.12 The route of the M4 along this section already lies within the Green Belt. The proposed development would fall outside the existing confines of the highway carriageway where there is localised widening to accommodate, for example, slip roads. We consider that this localised widening would constitute engineering works, and in the context of the existing M4 corridor, would be unlikely in itself to undermine the openness of the Green Belt.
- 5.17.13 However, the physical, above ground, permanent development such as gantries and new bridges would in our view constitute new building works. These works do not fall within any of the exceptions listed in NPPF 89 as not inappropriate in the Green Belt. Significant impacts on

the openness of the Green Belt would arise where an overbridge or an underbridge is replaced in a new location, or is made larger to accommodate a widened carriageway. In our view such an operation would constitute a new building work, and as a result of its increase in size and/or new location, it would have a detrimental impact on the openness of the Green Belt.

- 5.17.14 An example of the replacement of an overbridge would be the Ascot Road overbridge for which the road on the western side would be realigned and the carriageway would be 1.4m higher. This would increase the intrusion of the structure into the Green Belt. At Thames Bray the underbridge would be widened to the south, with similar effect.
- 5.17.15 The proposed development also includes the erection of a greater number of larger gantries which would inevitably be more conspicuous in the Green Belt than the existing lower number of more modest gantries.
- 5.17.16 It is the impact of the new building works and gantries above the level of the carriageway and outside the confines of the existing carriageway which we consider would fail to preserve the openness of the Green Belt. As a result we find that the proposed development as an operational development would be inappropriate.

#### *Construction effects*

- 5.17.17 During construction Green Belt land would be required to accommodate proposals for six potential CC (5, 6, 7, 8, 9, and 11) located close to the main carriageway. The use would include temporary structures above ground, and the storage of materials, large plant and machinery. If the CC are considered to be building works, they would not fall within any form of development which the NPPF defines as not inappropriate in paragraph 89. If the construction compounds are considered to be engineering works, the potential erection of hoardings to screen the compounds, coupled with the uses proposed to be made of the compounds, would in our view fail to preserve the openness of the Green Belt for the duration of the use. As a result we find that the proposals for construction compounds would constitute inappropriate development in the Green Belt.
- 5.17.18 CC5 would be required for the duration of the works [REP7-012] but none of the compounds are proposed to become permanent. Each site would be reinstated to its original condition following the completion of its use. As a result the impact of the construction compounds on the openness of the Green Belt would be confined to the length of time each compound is required in connection with the construction of the proposed development. The temporary nature of the impact is a material consideration to be taken into account.
- 5.17.19 The construction compounds are necessary to facilitate the implementation of the proposed development, and we accept that they

need to be located near to the main works for both practical and environmental reasons.

## **SUMMARY AND CONCLUSIONS**

- 5.17.20 As stated in the NPPF, inappropriate development is by definition harmful to the Green Belt. We find that the proposed development both during construction and operation would be inappropriate development. It would harm two of the fundamental aims of the Green Belt to maintain openness and would undermine the purpose to safeguard the countryside from encroachment.
- 5.17.21 Since the development would be inappropriate development in the Green Belt, we must consider whether the very special circumstances required by NPPF paragraph 87 exist for consent to be granted. We turn to consider whether very special circumstances exist, and the balance between those material considerations which weigh in favour of the proposed development and the harm to the Green Belt by reason of inappropriateness, and any other harm, as required by NPPF paragraph 88, in Chapter 6 of our report below.



## **6 THE EXA'S CONCLUSION ON THE CASE FOR DEVELOPMENT CONSENT<sup>71</sup>**

### **6.1 INTRODUCTION**

6.1.1 The designated NPSNN provides the primary basis for making decisions on development consent applications for national networks nationally significant infrastructure projects in England by the SoS. Our conclusions on the case for development set out in the application before us are therefore reached within the context of the policies contained therein.

### **6.2 MATTERS IN FAVOUR OF THE DEVELOPMENT**

6.2.1 The M4 provides the strategic link between Wales to the west and London to the east. It provides access to other strategic motorways which link together major conurbations, businesses and infrastructure of international significance such as Heathrow airport.

6.2.2 As part of the national roads network, the vision and strategic objectives identified in Section 2 of the NPSNN apply to the M4 smart motorway proposal. The proposed development is of the sort identified in the NPSNN that would provide additional capacity to help reduce traffic congestion, improve journey times and support social and economic activity in accordance with the Government's vision and strategic objectives.

6.2.3 The M4 smart motorway would meet the critical need identified in the NPSNN to address road congestion to provide safe, expeditious and resilient networks that better support social and economic activity; and to provide a transport network that is capable of stimulating and supporting economic growth. The proposed development would provide the enhancement to a key strategic route needed to release the constraint to the economy and relieve the negative impacts on the quality of life which result from traffic congestion.

6.2.4 We are satisfied that the proposed development would be in accordance with the strategic aims of the NPSNN. It would be an enhancement of the existing motorway which would provide for the increased capacity for which there is a critical need. The social and economic benefits of such provision are clearly identified in the NPSNN. The compelling need for the development of the national networks to which the M4 smart motorway would contribute, falls to be considered against the generic impacts of the proposed development in the terms set out in the NPSNN.

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<sup>71</sup> References in ( ) relate to paragraphs within the report

### **6.3 THE IMPACTS OF THE PROPOSED DEVELOPMENT**

- 6.3.1 In terms of the strategic forecast of traffic flows with the operation of the proposed development at opening in 2022, and the design year in 2037, we are satisfied that the Applicant has applied the appropriate advice in DMRB and achieved the support of TAME. Public transport provision and planned improvements have been taken into account in the modelling process. As a result we find the results of the assessment to be reasonable at the strategic level.
- 6.3.2 The proposed development is forecast to deliver an increase in capacity of up to 1,900 vehicles per hour in one direction during the peak operating period in 2037. This would be some 24% of the flow without the proposed development. As a result we find that the proposed development would meet the objectives of Government as identified in the NPSNN of increased capacity, improved traffic flow and reduced journey times.
- 6.3.3 Our main concern in relation to traffic forecasting relates to the interface with the air quality assessment. We identify the potential for uncertainties which may be carried through into the air quality assessment.
- 6.3.4 In terms of the effect of construction traffic on local roads, we are satisfied that the impacts arising from the proposed development would be adequately addressed through provisions made in the CEMP and the CTMP which are secured through Requirements 8 and 18 of the DCO. Provisions are similarly secured for any cumulative impact rising from the proposed development as a result of other major developments taking place within the same time frame.
- 6.3.5 There would be some disruption to NMUs during construction, but these would be controlled and mitigated through careful management as provided through the CEMP. By means of CEMP and through the protection of interests in the DCO access to business premises and to important infrastructure providers would be maintained throughout construction.
- 6.3.6 Effects on local roads during the operation of the scheme have been assessed by the Applicant, and found to be reasonable. We find there is no justification for the Applicant to take any steps to compensate for any changes in traffic flows and re-assignment on the local road networks.
- 6.3.7 In terms of road safety, the proposed development has been the subject of a Road Safety Audit. It is forecast to deliver a higher level of safety than that which applies to the current operation of the M4 between Junctions 12-3. As a result we find that the level of safety likely to apply to the M4 ALR smart motorway would meet the test in NPSNN paragraph 4.60, and that the alternative of a HSR scheme would not be justified.

- 6.3.8 With the proposed M4 ALR smart motorway in operation, we find that through the use of low noise road surfacing and the implementation of the ENMS, there would be at least an overall minor improvement in the noise environment for the length of the scheme, with a noticeable improvement for a large number of households.
- 6.3.9 To ensure that this enhancement is secured for the future, we consider it necessary for the resurfacing requirement to specify that a low noise surfacing material is used for the lifetime of the proposed development. We also consider it appropriate to apply a maintenance clause to the acoustic fencing requirement to ensure that local residents are fully protected for the lifetime of the proposed development.
- 6.3.10 Noise impacts during construction may be significant but they would be temporary. We are satisfied that these would be mitigated as far as possible through Requirement 8 of the DCO and through Section 61 agreements under the Control of Pollution Act 1974 with relevant local authorities.
- 6.3.11 In terms of waste management within the proposed development we are satisfied that the Applicant would apply the principles of the waste hierarchy and recycle the maximum levels of material as is practicable. The management of waste and materials is secured through the SWMP and MMP, which in turn form a part of the CEMP, secured through Requirement 8 of the DCO.
- 6.3.12 The design of the proposed development meets the requirements of the NPSNN, in particular paragraphs 2.23 and 4.28 to 4.35, as far as reasonably practicable.
- 6.3.13 Having regard to the location of the M4 which passes through a number of AQMAs, we considered in detail the issues raised in respect of the Applicant's air quality assessment. The Applicant has undertaken its assessment of air quality impacts in accordance with published guidance and best practice. No significant impacts are predicted as a result of the proposed development.
- 6.3.14 However, together with a number of local authorities, we identify reason to take a cautious approach to the results of the Applicant's assessment. It is generally accepted that forecasting is not an exact science. We identified the potential for inaccuracies in the air quality assessment, which could lead to EU limit values and national air quality objectives being exceeded within the AQMAs. We are also conscious of the aim of the Defra Air Quality Plan published during the Examination and the emerging evidence in relation to defeat devices and the impact on real world driving emissions. To manage this risk, we consider it prudent to include Requirement 26 for air quality monitoring and mitigation.
- 6.3.15 This would provide for the validation of the Applicant's assessment, and give the SoS some certainty in dealing with the air quality

impacts. In the event that the results of monitoring show an increase in air quality impacts in excess of the Applicant's forecasts which is agreed to be as a result of the proposed development, then a scheme for mitigation would be required.

- 6.3.16 The recommended Requirement would ensure that risk is managed in an area where air quality considerations are identified in paragraph 5.11 of NPSNN as being particularly relevant. Through the imposition of the Requirement, we are satisfied that the proposed development would then meet the requirements of paragraph 5.13.
- 6.3.17 Furthermore, we are satisfied that with the Requirement in the DCO, it would contribute to securing compliance with EU limit values within the relevant AQMAs in accordance with Defra's Air Quality Plan, and help safeguard against any harmful impacts on human health.
- 6.3.18 In relation to the construction impacts of the proposed development on air quality, some impact on amenity for local communities is likely to be unavoidable. However, we are satisfied that appropriate mitigation would be achieved through the CEMP and CTMP as secured through Requirements 8 and 18.
- 6.3.19 The proposed development would be compliant with the Water Framework Directive. Adequate provision is made to deal with flood risk to the satisfaction of the EA and is secured through the DCO. A surface water drainage strategy has been agreed with BCC as the lead local flood authority, and Requirement 14 together with the duties imposed on HE through its licence secure the position.
- 6.3.20 Impacts on groundwater have been addressed through a HyRA which is agreed with SEW, and mitigation measures to ensure the quality of the water environment including a pollution control plan during construction, are sufficient and secured in the DCO Requirement 8, *CEMP*.
- 6.3.21 Biodiversity and ecological conservation are fully addressed by the Applicant in the ES, and both NE and the EA are satisfied with the assessment. It is agreed between NE and the Applicant that EPS licences are required in respect of badgers and bats prior to the commencement of any development. NE agreed to provide letters to indicate there was no likely impediment to such licences being granted, but the letters were not received by the close of the Examination. In the event that the SoS is minded to grant development consent, he may wish to satisfy himself on this point.
- 6.3.22 We are satisfied that climate change adaptation has been taken into account throughout the design of the proposed development, and that the scheme would fall within the 0.1% of annual carbon emissions allowed in the fourth carbon budget.
- 6.3.23 A satisfactory HIA has been submitted. With the mitigation measures secured through the recommended DCO, we consider that the implementation of the proposed development would have no

significant impacts on health and would meet the tests set out in paragraph 4.82 in the NPSNN.

- 6.3.24 We find that the Applicant's assessment of impact, with the additional material appended to the SoCG with Historic England, provides a fair representation of the effects of the proposed development on the historic environment. With the added protection of relevant requirements in the DCO, the character and appearance of historic assets would be preserved in accordance with Regulation 3 of the IPDR, and meet the tests set out in the NPSNN.
- 6.3.25 However, we remain of the view that an opportunity to provide a desirable enhancement to the setting of the listed stables in Cranford Park has not been taken by the Applicant.
- 6.3.26 The presence of construction activities and compounds within the landscape and the loss of trees and other vegetation during the construction of the proposed development would have a moderately adverse effect on the landscape in some locations. There would be large adverse effects on the visual amenity of a limited number of residential occupiers during the construction phase.
- 6.3.27 However the impacts would be a temporary and dynamic as construction progresses along the length of the proposed development. In these circumstances we find the impacts during construction to be proportionate to the scale of the development, and acceptable.
- 6.3.28 Lower levels of impacts are assessed for the operation of the proposed development, together with some reduction in the number of locations and receptors affected once construction is complete, and construction equipment, materials and compounds removed or restored.
- 6.3.29 We find that the dominance of the M4 within the immediate surrounding area would be increased with the development of the scheme in terms of both the landscape and visual amenity. Nevertheless the impacts would be mitigated through provisions for the replacement and enhancement of vegetation wherever practicable. Together with the effects of the proposed lighting strategy, we find that in the long term there would be a neutral impact on landscape and visual amenity.
- 6.3.30 Having regard to the minimal effects of the proposed development on the AONB when considered against the absence of any geographically alternative option for meeting the need, we find that the tests in NPSNN paragraph 5.150 are met, and there would be no conflict with National Parks and Access to Countryside Act 1949, and the Countryside and Rights of Way Act 2000.
- 6.3.31 We find that all pollution and environmental impacts would be subject to control through the DCO and the relevant pollution and environmental regulations, in accordance with NPSNN paragraphs 4.48 to 4.56.

- 6.3.32 In so far as it falls within the powers and duties of HE to do so, we conclude that the proposed development would meet the aims of the NPSNN in respect of the support of social and economic activity as sought by the relevant paragraphs of the NPSNN.
- 6.3.33 All relevant combined and cumulative impacts of the proposed development have been satisfactorily addressed in the ES. We are satisfied that provision is made for any cumulative effects arising from the construction of other major infrastructure projects within the same geographical area and time frame.
- 6.3.34 In terms of the impact on the Metropolitan Green Belt, we find that the proposed development would be inappropriate development in the Green Belt during both construction and operation. Inappropriate development is by definition harmful to the Green Belt and should not be approved except in very special circumstances. We consider below the planning balance in this case, and whether very special circumstances exist to outweigh the harm to the green belt and any other harm.

#### **6.4 HABITATS REGULATIONS ASSESSMENT**

- 6.4.1 The Applicant undertook an Assessment of Implications on European Sites on which NE has been consulted. We are satisfied that as a result of the screening exercise there would be no likely significant effects on any European sites. NE is in support of these conclusions.

#### **6.5 THE BALANCE OF ISSUES AND THE GREEN BELT TEST**

- 6.5.1 NPSNN paragraph 4.2 advises that, subject to the provisions of s104 of the PA2008, the starting point for the determination of an application for a national networks NSIP is a presumption in favour of development.
- 6.5.2 In reaching our conclusions on the case for the proposed development, we have had regard to the relevant NPS, the NPPF, the LIRs and all other matters which we consider are both important and relevant to the SoS's decision. We have further considered whether the determination of this application in accordance with the relevant NPS would lead the UK to be in breach of any of its international obligations where relevant. We have concluded that in all respects, we have complied with these duties.
- 6.5.3 Bringing the above conclusions together, we note the Government's strong policy support for schemes that seek to deliver a well-functioning SRN. The M4 smart motorway would help deliver this policy.
- 6.5.4 We have considered the potential impacts of the proposed development and the concerns raised by those who made submissions on the application. Our conclusions are that there would be some harmful effects, in particular during the construction phase in terms of noise, air quality and visual amenity. However, these would be

temporary and mitigated as far as possible through controls secured through the DCO and other legislation.

- 6.5.5 In terms of the operation of the scheme, we have identified some limited impact in terms of the landscape and visual amenity, much of which would be mitigated over time through the planting of new vegetation. Impacts in terms of the water environment, flooding, waste management, and biodiversity would be neutral or mitigated through controls secured through the DCO. The impact on the historic environment would be largely neutral, although we consider that an opportunity to secure a benefit in relation to Cranford Park is missed. We are satisfied that air quality within the AQMAs would be safeguarded through the recommended monitoring and mitigation requirement.
- 6.5.6 There would be benefits in terms of the noise environment, provided those benefits are secured in the long term through our recommended Requirements 5 and 22.
- 6.5.7 The impact on health during operation would be largely neutral, with some potential for improvement as a result of the introduction of additional noise mitigation measures.
- 6.5.8 In terms of the Green Belt, there would be some impact on openness and harm by reason of inappropriate development. However, the impact on openness would be limited to those locations in which significant new or extended structures are proposed. Furthermore, they would take place within the context of an existing motorway so would not be a significant change in terms of the character and function of the Green Belt. As a result we consider that the harm to the Green Belt is not significant in its extent.
- 6.5.9 All the impacts which we have identified fall to be considered together in the context of the scheme as a whole. In particular, this consideration should be undertaken against the identified benefits of the scheme in relation to the SRN and the scheme's significant supporting role in economic terms, to which we attach great weight.

## **6.6 OVERALL CONCLUSION ON THE CASE FOR DEVELOPMENT.**

- 6.6.1 In our judgement, the strategic benefits of the proposed development are such that they outweigh the impacts which we identify in relation to the Green Belt, the construction of the scheme, and the limited effects on landscape and visual amenity during operation.
- 6.6.2 We find that the potential harm to the Green Belt, and any other harm which we have identified is outweighed by the benefits of the proposed development in meeting Government policy as set out in the NPSNN.
- 6.6.3 Having regard to the lack of any alternative location for the development of the M4 smart motorway, we consider that there is no alternative means by which the delivery of a well-functioning SRN could be achieved for the M4 Junctions 12 to 3. We therefore find that

very special circumstances exist in this case such that development consent may be granted.

6.6.4 We also see no reason for HRA matters to prevent the making of the Order.

6.6.5 The Panel therefore concludes that, for the reasons set out in the preceding Chapters and summarised above, development consent should be granted, subject to the incorporation of the changes it has made to the recommended DCO as discussed in Chapter 8 of this report.



## **7 COMPULSORY ACQUISITION AND RELATED MATTERS**

### **7.1 THE REQUEST FOR COMPULSORY ACQUISITION POWERS**

7.1.1 The request for CA powers is made through the inclusion of Part 5 *Powers of Acquisition* in the DCO. The following provisions are included:

- Article 20: compulsory acquisition of land;
- Article 22: compulsory acquisition of rights, and the creation of new rights in lands listed in Schedule 5;
- Article 24: extinguishment of private rights over land;
- Article 26: compulsory acquisition of subsoil or airspace only;
- Article 28: compulsory acquisition of rights under or over streets;
- Article 29: temporary use of land for carrying out the proposed development as specified in columns (1) and (2) of Schedule 7. Article 29(5) provides for compensation to be paid for any loss or damage arising from the exercise of this provision;
- Article 30: temporary use of land for maintaining the proposed development.

7.1.2 At the time the application was submitted, existing highway land comprising the site was Crown Land, predominantly registered in the interest of the Secretary of State for Transport [REP-022]. But following the replacement of the Highways Agency by HE in March 2015 all SoS interests were transferred to the Applicant under the provisions of the Infrastructure Act (IA) 2015<sup>72</sup> [REP7-015].

7.1.3 The majority of the works along the motorway corridor would be within land now owned by the Applicant. Additional land would be required permanently to accommodate the proposed development, such as for side road realignment at overbridges and underbridge widening in order to accommodate ALR. This would be kept to the minimum area required. Land would also be required temporarily for access, storage and construction activities, and would be reinstated to its former use on completion of construction.

7.1.4 Other lands in agricultural and other private/commercial use are also comprised within the Order lands, but to a much lesser extent.

7.1.5 The application is accompanied by a Statement of Reasons (SoR) [APP-030], a Funding Statement [APP-032], a Book of Reference (BoR) [APP-038], and Land Plans [APP-008 to APP-012] which reflect the Crown interests. A certificate of compliance with s56 and s59 of the PA2008, and a schedule of changes to the BoR is also provided [OD-002]. Revised versions of the BoR, Land Plans and SoR were submitted during the Examination to reflect various changes and other

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<sup>72</sup> <http://www.legislation.gov.uk/ukpga/2015/7/contents/enacted>

corrections. The final versions were submitted to Deadline V consolidating all changes and corrections to the application since the point of submission [REP5-007.2, REP5-007.5, REP5-007.3].

- 7.1.6 Temporary possession powers are sought by virtue of Articles 29 and 30 of the draft Order, and Schedule 7 lists plots of land that may be taken in that respect.
- 7.1.7 Appended to our FWQs we published two tables. Table 1 which lists all the objections to CA and temporary possession received at that time, and Table 2, which lists objections from those with a potential category 3 interest within the meaning of s44(4) of the PA2008. The Applicant confirms that it has reviewed all the parties in Table 2 in relation to whether or not they would have a category 3 interest [REP2-003.1].
- 7.1.8 Given the Applicant's view that there would be no materially harmful impacts arising from the operation of the proposed development, it concludes that none of the parties listed in the table appended to the ExA's FWQs might be entitled to make a claim [REP2-003.1]. The Applicant concludes that none of those parties would be category 3 parties, and sets out its reasons. This is a judgement for the Applicant to make. In terms of possible claims for compensation for depreciation in land value or for injurious affection, the appropriate avenues for any aggrieved parties are established outside of the PA2008 process.

## **7.2 THE PURPOSES FOR WHICH THE LAND IS REQUIRED**

- 7.2.1 CA powers are required to enable the Applicant to implement the proposed development i.e. to construct, operate and maintain the proposed development as set out in Schedule 1 of the DCO (Appendix D of this report) through the removal of existing easements, servitudes and other private rights; acquiring freehold and new rights; and replacing special category land. Schedule 7 to the DCO indicates that the majority of the listed plots are required to be possessed temporarily for construction purposes.
- 7.2.2 The Order land is required for the main groups of works, which in summary comprise:
- widening of the M4 carriageway;
  - widening of overbridges and underbridges;
  - construction of gantries above the M4;
  - construction of ERAs;
  - construction of POPs;
  - re-alignment of off-slips and other roads; and
  - widening of subways under the M4 carriageway.
- 7.2.3 Through Article 25 the DCO would incorporate the provisions of the Compulsory Purchase (General Vesting Declarations) Act 1981 and the provisions set out in s158 of PA2008 relating to the statutory authority and protection given to override easements and other rights.

7.2.4 Section 120(5)(a) of the PA2008 provides that a DCO may apply, modify or exclude a statutory provision which relates to any matter for which provision may be made in the DCO and s117(4) provides that, if the DCO includes such provisions, it must be in the form of a statutory instrument. The DCO seeks to apply s120(5)(a), so it is provided in the form of a statutory instrument.

### **7.3 THE REQUIREMENTS OF THE PLANNING ACT 2008**

7.3.1 CA powers can only be granted if the conditions set out in s122 and s123 of the PA2008 are met.

7.3.2 Section 122(2) states that the land must be required for the development to which the development consent relates or be required to facilitate or be incidental to the development. In respect of land required for the development, the land to be taken must be no more than is reasonably required and be proportionate<sup>73</sup>.

7.3.3 Section 122(3) requires that there must be a compelling case in the public interest which means that the public benefit derived from the CA must outweigh the private loss that would be suffered by those whose land is affected. In balancing public interest against private loss, CA must be justified in its own right. But this does not mean that the CA proposal can be considered in isolation from the wider consideration of the merits of the proposed development. There must be a need for the proposed development to be carried out and there must be consistency and coherency in the decision-making process.

7.3.4 Section 123 requires that one of three conditions is met by the proposal<sup>74</sup>. The ExA is satisfied that the condition in s123(2) is met because the application for the DCO includes a request for CA of the land to be authorised.

7.3.5 A number of general considerations also have to be addressed either as a result of following applicable guidance or in accordance with legal duties on decision-makers:

- all reasonable alternatives to CA must be explored;
- the Applicant must have a clear idea of how it intends to use the land and to demonstrate funds are available;
- the decision-maker must be satisfied that the purposes stated for the acquisition are legitimate and sufficiently justify the inevitable interference with the human rights of those affected.

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<sup>73</sup> Guidance related to procedures for compulsory acquisition DCLG February 2010

<sup>74</sup> (1) An order granting development consent may include provision authorising the compulsory acquisition of land only if the Secretary of State is satisfied that one of the conditions in subsections (2) to (4) is met.

(2) The condition is that the application for the order included a request for compulsory acquisition of the land to be authorised.

(3) The condition is that all persons with an interest in the land consent to the inclusion of the provision.

(4) The condition is that the prescribed procedure has been followed in relation to the land.

7.3.6 Temporary possession may itself be an alternative to CA. The powers for temporary possession are set out in Article 29 for the construction of the development. Article 29(5) provides for compensation. Article 30 gives powers of temporary possession for maintenance during operation. The justification for the inclusion of these Articles is the test as for all other powers in the DCO. Separately it is also necessary to consider any interference with interests under the Human Rights Act and this is done later in this Chapter for each case.

7.3.7 During the Examination the following changes were made in respect of permanent and temporary possession of land:

- CA at plot 26-04a, and temporary possession at plot 26-06 in SBC was reduced;
- temporary possession was removed in respect of plots 05-11, 05-12, 05-13 in WBC;
- CA of plots 16-06, 17-04b, c, d, in RBWM was removed;
- temporary possession of plots 20-26 and 26-07 in SBC, was removed;
- temporary possession of the following plots was added: plot 27-12a in SBDC, and plots 27-13a to 13d in SBC.

These changes are reflected in the updated Land Plans and BoRs [REP5-007.5, REP5-007.2]

## **7.4 HOW THE EXA EXAMINED THE CASE FOR COMPULSORY ACQUISITION**

7.4.1 Two tranches of written questions were posed to the Applicant and APs in respect of CA in our FWQs [PD-005] and SWQs [PD-011]. CAHs were held on 19 November 2015 [EV-012] and 12 February 2016 [EV-030].

### **THE APPLICANT'S CASE FOR CA**

7.4.2 The policy background to the application is set out in the Applicant's Planning Statement [APP-089]. The NPSNN states (paragraph 2.2) that "*there is a critical need to improve the national networks to address road congestion*". The need for additional capacity in particular on the M4 has been identified through a number of studies and reports, including:

- The TVMMS (2003);
- the Advanced Motorway Signalling and Traffic Management Feasibility Study (DfT, March 2008); and
- Britain's Transport Infrastructure: Motorways and Major Trunk Roads (DfT, January 2009)

7.4.3 The proposed development objectives are identified in paragraph 1.1.5 of this report. In our conclusions in Chapter 6, we find that the proposed development would fulfil those objectives. In achieving these, the proposed development would make a significant

contribution to the fulfilment of UK Government policy and objectives in relation to transport.

- 7.4.4 This is a linear scheme for which DCLG Guidance<sup>75</sup> paragraph 25 allows for schemes to make initial provision for the CA of land within an application, with negotiations with landowners to continue through the Examination and detailed design stages. The Applicant has sought (and continues to seek) to acquire the necessary interests in the Order lands through private treaty. But the proposed development entails the CA of many separate plots of land and it may not be practicable to acquire every plot by agreement. Without powers of CA in the DCO, the Order lands might not be assembled, uncertainty would prevail and the proposed development's strategic objectives and those of UK Government policy would not be achieved [REP5-007.3].
- 7.4.5 As the Applicant points out, the proposed development is proposed within a relatively constrained area [REP2-003]. Most development is within the confines of the existing carriageway. This is because the proposed development has been engineered by the Applicant to avoid compulsory acquisition of larger areas of land and to minimise land-take. The alternatives to the proposed development that were considered are detailed in Section 7D of the SoR [REP5-007.3].
- 7.4.6 The proposed development is in accordance with the DfT's RIS<sup>76</sup> and provides maximum benefit with minimal impact on the community, environment or flood risk relative to any alternative scheme. Furthermore, none of the alternative options to the proposed development would have obviated the need for CA and temporary possession of land: a widening, a new alignment or a new road to replace the M4 would have greater impacts. Public transport solutions (rail/light rail) would similarly affect wider areas and require additional land-take [REP5-007.3].
- 7.4.7 For scheme-specific elements, a number of alternative options have been considered for the required replacement of overbridge structures [APP-096]. These include online and offline replacement arrangements, and non-replacement. Preferred solutions for each of the 11 overbridge structures have been established through justified engineering criteria, including reduced impacts on residential occupiers [APP-089] and would be finalised in the detailed design stage through the value engineering process.
- 7.4.8 The proposed development has been assessed by the Applicant as representing the optimum solution for the improved management of road space: reducing capital and operating costs whilst optimising the benefits for road users and maintaining a high level of safety [APP-089, APP-096].

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<sup>75</sup> Planning Act 2008, Guidance related to procedures for compulsory acquisition (CLG, 2013)

<sup>76</sup> <https://www.gov.uk/government/publications/road-investment-strategy-for-the-2015-to-2020-road-period>

- 7.4.9 The general purposes for which land subject to CA powers is proposed to deliver the proposed development are set out in Table 2 of the SoR [REP5-007.3]. Table 2 describes the purpose for which each plot of land is required to deliver the proposed development, and demonstrates that the land over which powers of CA are sought is no greater in extent than is necessary for delivery of the proposed development. We therefore find that the proposed development satisfies the tests in s122(2) of PA2008.
- 7.4.10 In terms of s122(3) of PA2008, we have reached the conclusion (Chapter 6) that the proposed development would meet the need identified in the NPSNN paragraph 2.23 for improvement and enhancement of the strategic road network through the implementation of smart motorways to increase capacity and reduce congestion. NPSNN paragraph 2.16 states that traffic congestion constrains the economy and impacts negatively on quality of life. As set out in the NPSNN, we find that there is therefore a compelling case in the public interest for CA powers to implement the proposed development and thus contribute to the improvement of the strategic road network.
- 7.4.11 The proposed development would also contribute to the delivery of local strategic development as set out in the development plans for the areas through which it passes. Through the process of EIA, the proposed development has addressed the potential for environmental impacts and we have concluded in Chapter 6 that the proposed M4 Junction 12-3 Smart Motorway satisfies the planning balance [APP-089, 7.8].
- 7.4.12 The estimated capital cost for the construction of the proposed development is between £614 and £862m. This estimate comprises all the anticipated costs required to deliver the proposed development from the options stage through to the proposed development being open to traffic, and includes coverage of potential claims under Part 1 of the Land Compensation Act 1973, s10 of the Compulsory Purchase Act 1965 and s152(3) of the PA2008.
- 7.4.13 The Government's commitment to funding the proposed development is set out in Investing in Britain's Future (June, 2013)<sup>77</sup>; NIP 2013<sup>78</sup> and NIP 2014<sup>79</sup>; and the RIS<sup>80</sup>. Iteratively, these demonstrate that there is a clear and sustained commitment for the delivery of the proposed development to be fully funded by HM Treasury. Total committed funding established in the RIS is consolidated in the *Statement of Funds Available*<sup>81</sup>.

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<sup>77</sup> <https://www.gov.uk/government/publications/investing-in-britains-future>

<sup>78</sup> <https://www.gov.uk/government/collections/national-infrastructure-plan>

<sup>79</sup> <https://www.gov.uk/government/publications/national-infrastructure-plan-2014>

<sup>80</sup> <https://www.gov.uk/government/collections/road-investment-strategy>

<sup>81</sup> <https://www.gov.uk/government/publications/road-investment-strategy-investment-plan>

## **Cases of objectors in respect of CA and temporary possession**

- 7.4.14 We set out below the cases for those who made objections to the permanent or temporary possession of their land. We do not include those whose objections were withdrawn. An update is provided by the Applicant of the progress on CA negotiations which sets out the position on each of the plots which are included in the BoR [REP5-007.2].

### ***London Borough of Hillingdon***

#### ***Plots 28-04, 28-05, 28-06, 28-10, 28-12***

##### *Case for the affected person*

- 7.4.15 In respect of those plots in the Council's ownership for which permanent compulsory acquisition is sought, LBHill raises no objection. It is to the temporary use of the above plots to which LBHill objects as they are considered to be significantly more than are required for temporary access arrangements and working space for the extension of the Sipson Road subway [REP2-060 p38].
- 7.4.16 Concern is expressed about the impact of works on pedestrian access at Vine Close and pedestrian and vehicular access to Cherry Lane School. Moreover, the Council contends that there is insufficient information available upon which to assess the extent of compulsory acquisition in the generality.

##### *Applicant's response*

- 7.4.17 The lands are required in connection with the alteration of the Sipson Road subway. It will be necessary to close the subway for a temporary period for the temporary diversion of Statutory Undertakers' plant and their subsequent relocation [REP3-017.1].
- 7.4.18 The northern limits of plots 28-04, 28-05 and 28-06 have been positioned to avoid the access point from Sipson Road to Cherry Lane Primary School and Cherry Lane Children's Centre. Plot 28-10 covers a length of Sipson Road south of the subway. Temporary possession of this plot is required as working space and access for construction of the southern extension of Sipson Subway (Work Number 28).
- 7.4.19 Management of the works would be secured through the CEMP. The CEMP would be further developed during the detailed planning of the works to ensure that the works would be managed to minimise the impact on the school and children's centre. Plant and machinery would be selected to minimise dust, noise and vibration. Close liaison would be maintained with the school and children's centre throughout the works.

##### *ExA's conclusions*

- 7.4.20 The closure of the Sipson Road subway would disrupt pedestrian routes in its vicinity, and result in construction activities in close proximity to the school and children's centre. However, the temporary possession of the land is necessary to enable the alterations to Sipson Road subway, those alterations being necessary for the implementation of ALR within the proposed development. The Applicant has indicated that reasonable and proportionate steps would be taken to minimise and offset disruption in the proposed development design and through arrangements included in the CEMP [REP9-002].
- 7.4.21 We find that the interference with the use of, and rights over, the land required for temporary possession would be both proportionate and justified in the public interest.

***Buckinghamshire County Council***

***Plots 26-17, 26-19, 26-20, 27-01***

*Case for the affected person*

- 7.4.22 Of the above plots, 26-19 would be in temporary use, whilst CA is sought for 26-17, 26-20, and 27-01 in connection with works at Slade Lane overbridge. BCC requests that access across the M4 is maintained while the Old Slade Lane overbridge is replaced, and expresses a preference for the overbridge to be replaced offline [REP2-050]. In particular the Colne Trail would be effectively stopped up, and the Applicant's proposed diversion along some 5km of busy A-roads with limited pavements is impractical.

*Applicant's response*

- 7.4.23 The Applicant maintains that an offline replacement of the Old Slade Lane overbridge would not be justified and could not be achieved within the Order limits. The removal of the bridge during its reconstruction would sever the access route across the motorway, and there would be a significant diversion. The nearest alternative crossing is at Sutton Lane overbridge, just over one mile to the west of Old Slade Lane. As stated in paragraph 13.7.21 of the ES [APP-154], using this alternative would involve a lengthy diversion but there is no basis for suggesting that this does not provide a safe alternative to Old Slade Lane.
- 7.4.24 A traffic management plan would be prepared in detail during the development phase of the contract, after consultation with all the stakeholders. This would then detail the diversion routes for the closed public rights of way during the construction phase of the works.

*ExA's conclusions*

- 7.4.25 There is no agreement between BCC and the Applicant in relation to the works at Old Slade Lane overbridge [REP3-018]. However, an offline reconstruction of the bridge could not be achieved within the



Order limits. The reconstruction is necessary to implement the proposed development for which there is a compelling case in the public interest. Whilst we acknowledge the inconvenience to users of the bridge, we find the interference with the use of, and rights over, the land required for temporary possession would be both proportionate and justified in the public interest. The tests in s122 of PA2008 are met in relation to plots 26-17, 26-20, and 27-0.1 for CA.

***Bloor Homes Southern and Anita Thomas***

***Plots 17-11, 17-12, 18-02***

*Case for the affected person*

- 7.4.26 Plot 17-11 would be compulsorily acquired, whilst temporary possession is sought for plots 17-12, 18-02.
- 7.4.27 The landowners and Bloor Homes have a land promotional agreement relating to land west of A330 Ascot Road and east and south of the A308 (M) which includes plot 18-02. Bloor Homes identified the site for residential development within the RBWM *Local Plan Suitable Housing Land Availability Assessment (SHLAA)* for the emerging RWMB Local Plan. In January 2014 the site was included in the RBWM Borough Local Plan Preferred Options Consultation for up to 400 dwellings.
- 7.4.28 In accordance with Regulation 18 of the Town and Country Planning (England) Regulations 2012 Bloor Homes reviewed associated issues and options and promoted the site as potentially suitable for housing development, convening a local consultation exercise on 19 November 2014, broadly concurrent with the M4 Smart Motorway initial consultation. It is considered that the land has the potential for around 360 dwellings with some other commercial uses adjacent to the M4/A330 boundary, east of the CC 5, of some 5-6 ha on the land which comprises plots 17-11, 17-12 and 18-02. In order to avoid the temporary possession of plot 18-02 by HE, the objectors put forward alternative proposals for the location of CC 5 in the southern part of the site (adjacent to the M4 and the coppice wood) which would also reduce the temporary environmental impacts of the works area on residential frontages on Ascot Road [RR-300, Figure 8].
- 7.4.29 Negotiations were commenced which intended to reach a legal agreement whereby the Applicant would seek planning permission for the alternative compound. The landowners and Bloor Homes incurred considerable costs in drafting heads of terms and possible protective provisions to secure access arrangements. However, on the 3 March 2016 the Applicant informed the landowners that it would not sign the agreement.
- 7.4.30 The landowners consider that they have been misled by the Applicant, and have incurred excessive costs in their attempt to negotiate with the Applicant. A complaint is made against the Applicant for abuse of

power and process, together with a request to the ExA to keep the Examination open until the matter was resolved [REP-048].

*Applicant's response*

- 7.4.31 CC 5 is the proposed location for the main CC for the proposed development and hence a large area is required for the duration of the construction period. The contractor may maintain a smaller compound at this location during the five year maintenance period after the proposed development is open.
- 7.4.32 Details of the frontage and access onto the A330, together with a potential reduction in the size of the compound and the retention of the coppice wood are open for discussion. However, not all of the area of the proposed position of the compound shown by Bloor Homes is within the Order limits; hence it would not be possible to change the position of the compound within the DCO application in line with the objectors' request.
- 7.4.33 The potential for a side agreement between the parties to enable the relocation of the compound has been discussed. This would involve an application to the Local Planning Authority (LPA) for planning permission for a CC of the same dimensions, but in a slightly different configuration, on land owned by the objectors, outside of the current Order limits of the proposed development.
- 7.4.34 However, the land sought under the DCO for the provision of CC 5 is required for delivery of the proposed development, as the principal CC for the proposed development. As such, it is vital to ensure the delivery of the proposed development that the current proposals for powers of compulsory acquisition for the compound are provided for in the DCO, whether or not a private agreement is entered into with Bloor Homes.
- 7.4.35 In any event, the residential project has a long process to go through with no guarantee that planning permission would be granted. The site is in the Green Belt and Bloor Homes has been trying to promote a development proposal on it with the LPA for over ten years. The proposal remains unallocated in the local plan and the next iteration of the local plan is not due to be published until late 2017 (at the earliest).
- 7.4.36 There is no guarantee that the residential allocation would be made in the Local Plan. Local opposition to development in the Green Belt in this region is well documented and there are no firm indications that the LPA intends to allow such an erosion of the protected Green Belt. The planning history of plot 18-02 is that it has been used recently as a temporary motorway CC and the Applicant is seeking the same temporary use of plot 18-02 now, which would not prejudice the development of the site in the future [REP5-004.3].

*ExA's conclusions*

- 7.4.37 With regard to the request from the affected parties to keep the Examination open [REP-048], the ExA is under a duty to complete the Examination within 6 months of the start date in accordance with s98(1) of PA2008. Only the SoS has the power to alter this Deadline.
- 7.4.38 Since the final submission to the Examination was made by the objectors on the closing day, there was no opportunity to seek a response from the Applicant to that submission. However, the potential side agreement to which the submission refers would be a private arrangement between the parties and would not form a part of the DCO for our consideration. The issues for the ExA to consider are those set out within PA2008, and the DCLG Guidance. Article 1 of the First Protocol of the Human Rights Act 1998 is engaged.
- 7.4.39 Paragraph 20 of the DCLG Guidance states that "*the promoter should be able to demonstrate to the satisfaction of the decision-maker that all reasonable alternatives to compulsory acquisition (including modifications to the scheme) have been explored and that the proposed interference with the rights of those with an interest in the land is for a legitimate purpose and is necessary and proportionate*".
- 7.4.40 From the submissions made by the APs, it is not clear that all reasonable alternatives to CA were explored by the Applicant before Plot 18-02 was included for temporary possession. The landowners claim that they attempted to contact the Applicant in December 2014 prior to the submission of the DCO application, and at no time prior to the serving of the formal notices did the Applicant discuss with the landowners the location of the proposed compound.
- 7.4.41 In the absence of a response from the Applicant, we cannot reach any conclusion on this matter. Nevertheless, during the course of the Examination, the Applicant was prepared to consider an alternative configuration which would have met the objections raised. We have no submission from the Applicant on the outcome of those negotiations.
- 7.4.42 Nevertheless, we do not question the requirement for a CC in this location in order to facilitate the implementation of the proposed development. In terms of the general location the test is met.
- 7.4.43 Whether or not the requirement could be met on an alternative site to Plot 18-02, the alternative put forward by the objectors is outside the Order limits. It would therefore need to be the subject of a separate planning application before it could be put to use. In the circumstances which now exist, the alternative land cannot be described as reasonably likely to be secured and available for the start of the development.
- 7.4.44 In the absence of a planning permission, the alternative is not available for the use of the Applicant. Therefore, even if the negotiations which were started during the Examination were successful in relation to the alternative site, it would still be necessary to provide for the temporary possession of the land sought within the

Order limits in order to avoid any potential for delay in the commencement of the proposed development.

- 7.4.45 Furthermore, regardless of the potential for an alternative site, Plot 18-02 would be required for a temporary, though lengthy, period of at least five years. Its temporary use as a CC should not, in our view, prevent the promotion of the land for residential development through the Local Plan process. The main constraint which would result from the temporary use is to delay the availability of the site for a residential development to take place. In view of the priority set out in Government policy for improvements to the SRN, such delay would in our view be proportionate.
- 7.4.46 In the absence of a secure alternative to the use of Plot 18-02, we consider that the interference with the use of, and rights over, Plots 17-12 and 18-02, which are required for temporary possession, would be both proportionate and justified in the public interest. The tests in s122 of PA2008 are met in relation to Plot 17-11.

### ***Railway Pension Nominees Ltd***

#### ***Plots 18-07, 18-08***

##### *Case for the affected person*

- 7.4.47 Railway Pension Nominees Ltd (RPNL) object to the inclusion within the Order of temporary possession powers on lands and property in its interest, and request for those powers to be removed. The land (Plot 18-07) is currently used for car parking for business occupiers at the Priors Way Industrial Estate. It is often fully occupied during business hours and is therefore an essential element of RPNL-owned property and is vital for the functioning of the businesses who occupy it [RR-297].
- 7.4.48 Associated concern is expressed in respect of consultation, consideration of alternatives, the duration of temporary possession powers and the absence of a compelling case in the public interest [RR-297].

##### *Applicant's response*

- 7.4.49 The Applicant refers to the SoR [REP5-007.3] and the justification provided within it for the temporary possession of the plots for access and working space to construct the realigned Ascot Road and the new Ascot Road Overbridge (and retaining wall to the east).
- 7.4.50 Unit 6 (Plot 19-08) is closest to and most likely to be affected by the proposed development and is currently vacant. As such little disturbance will occur.
- 7.4.51 Alternatives to the proposed development design have been considered, but in order to ensure deliverability of the proposed development it has been necessary to allow flexibility to engineering

solutions. The provision of the retaining wall avoids the requirement for additional permanent land-take at plots 18-07 and 18-08 for an earthworks embankment.

- 7.4.52 The Applicant is willing to acquire the lands by private treaty and understands this is acceptable to RPNL [REP1-003.1].

*ExA's conclusions*

- 7.4.53 At the close of the Examination there had been no confirmation from the Applicant that a negotiated settlement between the parties had been agreed.
- 7.4.54 It is not necessary for the Applicant to demonstrate a compelling case in the public interest for temporary possession of land. However, on the basis of the information before the Examination, we regard the temporary possession of lands in RPNL's interest as necessary for the proposed development. The Applicant has appropriately demonstrated measures to minimise land-take and we are satisfied that no more land than is required is sought to be temporarily possessed. We find the interference with the use of and rights over the land required for temporary possession would be both proportionate and justified in the public interest.

***Goodman Colnbrook (Jersey) Ltd***

***Plots 26-04, 26-04a, 26-06, 26-10, 26-10a, 26-17, 27-09,***

*Case for the affected person*

- 7.4.55 Goodman Colnbrook (Jersey) Ltd (GCL) is the freehold owner of a substantial area of land to the south of the M4 Motorway which is being promoted through the planning system for development as a strategic rail freight interchange (SRFI). A public inquiry into the planning appeal for the GCL scheme was held in September 2015.
- 7.4.56 GCL wishes to ensure that the acquisition of land and other rights granted to the Applicant through the DCO does not prejudice the implementation of the necessary rail infrastructure to serve the SRFI or the provision of an enhanced network of routes for pedestrians, cyclists and horse riders to be delivered through the GCL scheme [RR-232].
- 7.4.57 The Goodman team met with the Applicant to discuss the compatibility of the two schemes in relation to the Old Slade Lane bridge replacement, and indicated that the objection would be withdrawn if an agreement could be reached [AS-025].

*Applicant's response*

- 7.4.58 The application by GCL for the SRFI is, at this stage, subject to planning refusal. No progress had been made on the matters raised by GCL for some time. But the Applicant has written to GCL and would

seek to discuss managing any interference between the two schemes with mutual safeguards [REP1-003.1].

*ExA's conclusions*

- 7.4.59 No update was submitted in the course of the Examination as to the progress of discussions between the parties. In spite of our request for a plan to indicate how the two schemes would interact or overlap, no evidence was submitted. At the end of the Examination, no decision had been issued by the SoS in relation to the SRFI appeal.
- 7.4.60 Whilst the SRFI proposal does not have a planning permission, and in the absence of any evidence to demonstrate a potential conflict between the SRFI and the proposed development, we do not accord the SRFI objection significant weight against the need for the Applicant to exercise powers to take temporary possession of land in GCL's possession and to compulsorily acquire land and rights. The powers sought are necessary to the implementation of the proposed development which is in the public interest and therefore the CA meets the tests of s122 of PA2008. We find the interference with the use of, and rights over, the land required for temporary possession would be both proportionate and justified in the public interest.

***Slough MotoX Parc***

***Plots 23-32, 23-33***

*Case for the affected person*

- 7.4.61 Slough MotoX Parc (SMP) has been resident in Upton Court Park for over 35 years. The park attracts over 200 riders per month, and is actively working on plans to increase rider numbers and improve facilities. The facility provides an important social function by controlling anti-social riding and trespass on unauthorised land.
- 7.4.62 The lands in SMP's interest are located adjacent to the M4 and the Recreation Ground overbridge. According to SMP, the exercise of temporary possession powers over the lands in which SMP holds interest would render the motocross track too small to operate on the grounds of health and safety. The owners express major concern about the long term viability of the facility following an extended closure enforced by the Applicant's temporary possession of plots 23-32 and 23-33 [RR-019; AS-032].
- 7.4.63 Associated concern is expressed in respect of the increased height of the bridge and road leading to and from it which would increase the fall, resulting in a wider embankment being needed and permanently reducing the track size. The current engineering proposals do not account for noise and security bunds on the site that run alongside the fall, and along with the increase of the fall there would need to be an increase in the bund, which it is believed would impact on a large section of the track [AS-032].

7.4.64 In response to confirmation from the Applicant that the duration of bridge construction works affecting SMP would be approximately one year, SMP believes that subject to a period of rebuilding which would be required once the Applicant vacates plots 23-32 and 23-33, the proposed development is likely to result in a suspension in operations at the park for some 18 months [REP7-023].

*Applicant's response*

7.4.65 The lands in question are sought to be possessed temporarily for the online reconstruction of the Recreation Ground overbridge and for finalising works to the access road. The land-take at this location would not be wholly consumed by the proposed development and as such the effect would not be to render the lands in SMP's interest too small and hence unfit for purpose.

7.4.66 The Applicant acknowledges that the proposed development would have a temporary adverse impact on SMP, but anticipates that the long term impact on the facility would not be significant. The Applicant expresses its commitment to seek to mitigate any adverse effect on the facility within this period in accordance with the provisions of the CEMP [REP9-002].

7.4.67 In respect of the Recreation Ground overbridge design, the Applicant acknowledges that the increase in height of up to 1.1 metres would also require the footprint of the embankment to increase. Consequently, the security fence required to contain and secure the activities of SMP is likely to require amendment which may reduce the available track areas. But the toe of the new embankment would not extend any further than the limits shown on the Works Plans [REP5-006] and on the schematic land area plan overlaid on Google Earth provided to SMP on 16 December 2015 and 12 January 2016 [REP6-011].

*ExA's conclusions*

7.4.68 SMP clearly provides an important community facility with a number of social benefits and we accept that the construction works may well have a significant impact on the operation of the track. It is also clear that once construction is complete, there is the potential for the works to have a continued impact on the operation of the track as a result of the increased span of the Recreation Ground Bridge. We therefore have some sympathy with the concerns expressed by SMP.

7.4.69 The Applicant has indicated that it will use its best efforts to minimise these impacts on the use and future operation of the facility, but we have no doubt that it would not be possible to mitigate all the impacts in particular during construction of the proposed development.

7.4.70 Nevertheless, the powers sought by the Applicant are necessary for the implementation of proposed development, and we are satisfied that no more land than is required is sought to be temporarily possessed. The temporary acquisition which is sought is necessary for

the implementation of the proposed development, and the proposed development is demonstrably in the public interest. We find the interference with the use of, and rights over, the land required for temporary possession would be both proportionate and justified in the public interest. The Article 29 powers also provide for compensation for the interference.

***The Oxford Diocesan Board of Finance***

***Plots 19-61, 19-62***

*Case for the affected person*

- 7.4.71 The Oxford Diocesan Board of Finance (ODBF) expresses concern in relation to how the proposed development will impact on lands in its interest which are let to generate income for charity [RR-025].

*Applicant's response*

- 7.4.72 The lands in question are sought to be possessed temporarily to enable access and working space for the online reconstruction of Marsh Lane overbridge. The estate of ODBF at this location would not be wholly consumed by the proposed development. As such the effect would not be to render the land unable to generate income for the charity [REP1-003.5].

*ExA's conclusions*

- 7.4.73 We find that the temporary possession of lands in ODBF's interest is necessary for the proposed development, and we are satisfied that no more land than is required is sought to be temporarily possessed. We find the interference with the use of, and rights over, the land required for temporary possession would be both proportionate and justified in the public interest.

***South Bucks District Council***

***Plots 19-45, 19-49, 19-56***

***Dorney Village Hall Management Committee (DVHMC)***

***Plot 19-56***

*Case for the affected persons*

- 7.4.74 SBDC and DVHMC express concern in relation to the temporary possession of lands in the Council's interest and the effect on access to Dorney Village Hall [RR-060, RR-034 and REP2-050]. The lands in question consist largely of amenity area for recreational purposes and are used extensively by local residents and play groups.

- 7.4.75 Plot 19-56 is agreed to be in the ownership of HE [REP2-009]. SBDC has access rights in order to reach its land ownership at plot 19-49.



7.4.76 The area to the south east of these plots is subject to a term lease of 21 years granted by SBDC to the DVHMC. The only viable means of access to the leasehold demise is via the access track described against plot 19-56 in the BoR [REP5-007.2]. This land is required by the Applicant temporarily, which may effectively preclude the Council's tenants from having access or egress to its premises, as well as depriving residents the use of the amenity land known as Trumpers Field.

*Applicant's response*

7.4.77 The Applicant agrees that the temporary possession could impinge upon access to facilities in Dorney Village. The access track at plot 19-56 would be required to facilitate certain operations, and may be narrowed or closed for short periods. But all local stakeholders would be consulted and the contractor would be required to review the access, including the temporary closures and associated works in accordance with the provisions of the CEMP. As a result any closure to access to the Village Hall would be at times that did not impact on events at the Village Hall or the use of its car park for school parking.

*ExA's conclusions*

7.4.78 We find that the temporary possession of lands in which SBDC and DVHMC have an interest is necessary for the implementation of the proposed development. However, the Applicant has indicated that care would be taken to minimise disruption to community activities. We find the interference with the use of and rights over the land required for temporary possession would be both proportionate and justified in the public interest.

***Manpartap Singh***

***Plot 18-15***

*Case for the affected person*

7.4.79 Mr Singh is joint freehold owner of two properties on Ascot Road, Holyport, namely Ashley and Brambles. Lands associated with these properties adjoin plot 18-15, within which Mr Singh holds Category 1 interest in respect of subsoil [RR-038].

7.4.80 Mr Singh expresses concern in respect of operational noise from the proposed development and in respect of access to his properties which could be considerably hindered during the construction phase.

*Applicant's response*

7.4.81 The new Ascot Road overbridge is to be constructed off-line and traffic would be diverted across the new bridge before the old Ascot Road overbridge is demolished. The new southern approach embankment moves the Ascot Road kerb line further away from the properties owned by Mr Singh. Access would be maintained and there would be

only minor disruption in front of these properties as the access is extended, and to tie in the new kerb line [APP-096].

*ExA's conclusions*

- 7.4.82 The Applicant indicates that any disruption to access to Ashley and Brambles would be minimised. The CA of plot 18-15 is required to facilitate the implementation of the proposed development which is in the public interest. The tests in s122 of PA2008 are met.

**Lesley Rose Rieseberg**

**Plot 24-13**

*Case for the affected person*

- 7.4.83 Ms Rieseberg is the freehold owner of plot 24-13, which is in the process of being re-zoned from agricultural land to residential land [RR-084].

*Applicant's response*

- 7.4.84 The use of land is an issue for the local planning authority and does not fall within the jurisdiction of the Examination of the proposed development. There is no evidence that the proposed development would have any impact on an application to have a site allocation changed to residential land [REP1-003.5].

*ExA's conclusions*

- 7.4.85 Temporary possession of the plot is required to facilitate the implementation of the proposed development which is in the public interest. We find the interference with the use of and rights over the land required for temporary possession would be both proportionate and justified in the public interest.

**Teresa McGuinness**

**Plot 19-59**

*Case for the affected person*

- 7.4.86 Ms McGuinness is a tenant and occupier at plot 19-59, grazing two horses on the lands. Concern is expressed in respect of the temporary loss of these lands which would require Ms McGuinness to supplement feed. Access to the horses' stable, shelter and feed shed would be lost [RR-130].
- 7.4.87 Ms McGuinness seeks to be assured that any temporary fencing provided will be secure and suitable, and that any fencing or buildings lost in the carrying out of works will be replaced upon the Applicant's vacation of the lands [RR-130].

*Applicant's response*

- 7.4.88 Plot 19-59 is required in order to provide temporary access and working space for the online reconstruction of Marsh Lane and Marsh Lane overbridge. The land at this location would not be wholly consumed by the proposed development and as such the effect is not to render the land unfit for purpose. No evidence has been provided to indicate otherwise [REP1-003.5].
- 7.4.89 Discussions with Ms McGuiness would continue throughout the construction period of the proposed development in accordance with the provisions made in the CEMP [REP9-002].

*ExA's conclusions*

- 7.4.90 The Applicant provides assurances that disruption of the use would be minimised. Temporary possession of the plot is required to facilitate the implementation of the proposed development which is in the public interest. We find the interference with the use of and rights over the land required for temporary possession would be both proportionate and justified in the public interest.

***National Foundation for Educational Research***

***Plots 23-05, 23-08, 23-07***

*Case for the affected person*

- 7.4.91 In respect of plot 23-08 and use of the access road located on these lands, the National Foundation for Educational Research (NFER) seeks clarification in respect of any shared-use arrangement, or alternative access provisions. Assurances are sought from the Applicant that the NFER's ability to carry out day-to-day activities would not be compromised by the proposed works. The access road was not built to withstand use by heavy plant/vehicles and the NFER presumes that maintenance and repair of the access road will be made during and on completion of works [RR-190].

*Applicant's response*

- 7.4.92 Access would be maintained to the premises of the NFER throughout the construction of the proposed development. This would allow the NFER to use its access road to carry out normal day-to-day activities. Provision of an alternative access would not therefore be required [REP3-023.29].
- 7.4.93 The access road is not required for access by heavy construction plant/vehicles. Use of construction machinery in plot 23-08 would be limited to that required for the possible realignment of the private means of access to Datchet Road.

*ExA's conclusions*

7.4.94 The Applicant provides assurances that disruption of the use would be minimised. Temporary possession of plots 23-07 and 23-08 and the CA of plot 23-05 is required to facilitate the implementation of the proposed development which is in the public interest. We find the interference with the use of, and rights over, the land required for temporary possession would be both proportionate and justified in the public interest. The tests in s122 of PA2008 are met in relation to plot 23-05.

***BP Oil UK Ltd, Moto Hospitality Ltd***

***Plots 03-07, 03-12***

*Case for the affected persons*

7.4.95 BP Oil UK Limited (BP) holds the freehold interest in the petrol filling stations at Reading Motorway Service Area (MSA) as well as the reversionary freehold interest in the amenity areas at Reading MSA [RR-199].

7.4.96 BP is concerned about the adverse impact the proposals could have on the access arrangements for the MSA and about the temporary disruption that is likely to occur during the construction of the works.

7.4.97 Moto Hospitality Ltd (MHL) holds a long leasehold of the MSA. Access roads associated with the MSA may be affected by the proposed development, and MHL seeks assurance that these access roads are not compromised for vehicles using its facilities [RR-216].

7.4.98 Further concern is expressed in respect of the depreciation in the value of BP's interest which is likely to arise as a consequence of the proposed development.

*Applicant's response*

7.4.99 The temporary traffic management for the proposed development would maintain access to the MSA throughout the construction phase. The only exception to access will be during off-peak night-time when full carriageway closures will be required from time to time to enable safe construction of the works eg to erect gantry booms.

7.4.100 Since access would be maintained to the MSA, no depreciation in value of BP's interest is predicted. But in any event this is not a matter for Examination of the proposed development. Any compensation due for loss and disturbance to the interests of either BP or MHL would be assessed in accordance with the National Compensation Code [REP1.003.13].

*ExA's conclusions*

7.4.101 The Applicant provides assurances that disruption to the access would be minimised. Temporary possession of the land is required to facilitate the implementation of the proposed development which is in

the public interest. We find the interference with the use of, and rights over, the land required for temporary possession would be both proportionate and justified in the public interest.

***Dunelm (Soft Furnishings) Ltd and Dunelm Estates Ltd***

***Plots 02-01, 02-02***

*Case for the affected person*

- 7.4.102 Dunelm (Soft Furnishings) Ltd and Dunelm Estates Ltd (Dunelm) enjoy rights to drain water associated with plots 02-01 and 02-02. Dunelm expresses concern in respect of the construction phase and its likely impacts on its retail premises at Pincents Lane, Reading [RR-220 and REP2-020].
- 7.4.103 Dunelm expresses specific concern in respect of the proposed location of CC 2 and potential impacts from noise, dust and construction traffic. The construction phase would also cause an increase in traffic congestion at Junction 12 and on Bath Road, which would be compounded by the new IKEA development off Pincents Lane. This would impact negatively on Dunelm's trading ability as customers may find it difficult to access its store.
- 7.4.104 Dunelm requests to be kept apprised of the progress of the application and the submission of any Traffic Modelling and Traffic Management Plans relating to Junction 12 of the M4 [REP2-020].

*Applicant's response*

- 7.4.105 CC 2 at Junction 12 would not be the main compound for the proposed development. It would be a satellite compound, supporting construction activity at the far end of the proposed development, and a vehicle recovery area. The main works would be predominately accessed from the M4 and the main compound near Junction 8/9. Construction Traffic would be managed and mitigated via the provisions of the CTMP. There would be early engagement with relevant local authorities to develop the CTMP to ensure impact to the local network is minimised [REP1.003.5].
- 7.4.106 The CTMP governs the access and construction routes to the localised bridge sites. Part of the CTMP would include consideration of existing traffic flows and businesses in the area (including IKEA which is due to be operational in 2016) [REP1.003.5].
- 7.4.107 Dunelm would be kept apprised of any updates to the traffic modelling which may occur that affect the area in question and on the submission of the CTMP. This commitment is secured in the CEMP [REP3-023.12].
- 7.4.108 The procedures for managing noise and vibration during construction, including a protocol for compliance monitoring, will be documented in the CEMP. The will be finalised in consultation with relevant local

authorities prior to commencement of construction works. Section 12 of the outline CEMP details noise and vibration measures to be implemented [REP9-003]. The CEMP also includes measures on-site construction layout to control dust, mud, and spoil.

*ExA's conclusions*

- 7.4.109 The Applicant provides assurances that any disruption to the access to Dunelm would be minimised. Temporary possession of the land is required to facilitate the implementation of the proposed development which is in the public interest. We find the interference with the use of, and rights over, the land required for temporary possession would be both proportionate and justified in the public interest.

***The Animal Sanctuary UK***

***Plots 20-02, 20-02a, 20-05***

*Case for the affected person*

- 7.4.110 The Animal Sanctuary UK (ASUK) is the lease holder at Orchard Herb Farm, Lake End Road, Dorney. ASUK tends in the region of 300 animals and works with in excess of 70 special needs people per week. The exercise of powers sought by the Applicant in the Order would require ASUK to relocate to a new site, in the process having to dismantle and move 40 stables and additional animal housing [RR-235].

*Applicant's response*

- 7.4.111 Any compensation due for loss and disturbance would be assessed in accordance with the Compensation Code. Liaison with the District Valuer is ongoing and a meeting will be arranged with the ASUK representative [REP1.003.13].

*ExA's conclusions*

- 7.4.112 Temporary possession of the plot is required to facilitate the implementation of the proposed development which is in the public interest. We find the interference with the use of, and rights over, the land required for temporary possession would be both proportionate and justified in the public interest.

***Mohinder Jaswal***

***Plot 20-14***

*Case for the affected person*

- 7.4.113 Mr Jaswal is the owner of the property known as Four Elms on Lake End Road, Taplow. Lands associated with this property adjoin plot 20-14. Mr Jaswal expresses concern in respect of the impact of the proposed development on access to his property, for which there are

no clear plans. Noise and pollution associated with the proposed development will blight Mr Jaswal's property [RR-237].

*Applicant's response*

- 7.4.114 No permanent effect on access to Mr Jaswal's property would result from the proposed development. During the construction period, access would be maintained to allow residents to use their access road to carry out normal day-to-day activities [REP1-003.5].
- 7.4.115 The proposed development does not result in an increase in noise pollution. Mr Jaswal's property is slightly outside the area for which noise level difference contours have been calculated. But given that the noise contours of locations closer to the M4 than Mr Jaswal's property show a negligible reduction in noise as a result of the proposed development, it can be inferred that Mr Jaswal's property and the surrounding area will also experience noise reductions.
- 7.4.116 In the long term, it can be inferred that Mr Jaswal's property and the surrounding area will experience negligible noise increases. This is due to increases in road traffic on Lake End Road over time. But these negligible noise increases would occur even if the proposed development did not go ahead.
- 7.4.117 No blight would occur to Mr Jaswal's property as a result of the proposed development.

*ExA's conclusions*

- 7.4.118 The Applicant provides assurances that there would be no disruption to access as a result of temporary possession of the land. Temporary possession of the plot is required to facilitate the implementation of the proposed development which is in the public interest. We find the interference with the use of, and rights over, the land required for temporary possession would be both proportionate and justified in the public interest.

***Stockley Park Consortium***

***Plots 29-01, 29-03***

*Case for the affected person*

- 7.4.119 Stockley Park Consortium Limited (SPCL) is the owner to freehold title of plots 29- 01 and 29-03.
- 7.4.120 SPCL expresses concern that no information has been provided about what form of interest is sought in lands in which it holds interest, the likely timing or duration of temporary possession powers, and the nature of any impacts on SPCL. Moreover, there is no explanation as to why powers over SPCL's interests are necessary or justified.

- 7.4.121 The lands in question are not currently in active occupation. But they are an active and marketable development prospect, and SPCL is in advanced talks with a purchaser for the land. SPCL understands that the purchaser then intends to pursue a planning application for a full redevelopment of the lands for employment uses.
- 7.4.122 SPCL and the purchaser are broadly in support of the proposals for the M4 motorway, depending on the timing, nature and extent of the temporary possession powers, which could give rise to an unreasonable interference with future development [RR-238].

*Applicant's response*

- 7.4.123 Any compensation due for loss and disturbance would be assessed in accordance with the Compensation Code. Liaison with the District Valuer is ongoing.

*ExA's conclusions*

- 7.4.124 Temporary possession of the land is required to facilitate the implementation of the proposed development which is in the public interest. We find the interference with the use of, and rights over, the land required for temporary possession would be both proportionate and justified in the public interest.

**Royal Bank of Scotland**

**Plots 28-11, 19-66, 19-69, 23-08**

*Case for the affected person*

- 7.4.125 Royal Bank of Scotland (RBS) has interests in plots 19-66 and 19-69 (as mortgagee), plot 23-08 (as mortgagee) and as freeholder of plot 28-11 [RR-239].
- 7.4.126 RBS's clients express concern about the impact of the proposed development on their interests. Further information is requested from the Applicant in respect of the likely impacts and necessary mitigation arising from the proposed development. At this stage RBS's clients do not have enough information to make an accurate assessment.

*Applicant's response*

- 7.4.127 Plots 19-66 and 19-69 are required permanently for the online reconstruction of Marsh Lane overbridge. Plot 23-08 is required temporarily for the possible realignment of private means of access to Datchet Road. Plot 28-11 is required temporarily for access and working space for the extension of Sipson Road Subway [REP5-007.3, REP5-007.5]. Details of the potential impacts of the proposed development and proposed mitigation are described throughout the application documentation.



- 7.4.128 The Applicant is happy to continue engaging with the owners of these plots in relation to any concerns they may have.

*ExA's conclusions*

- 7.4.129 CA of plots 19-66 and 19-69 and temporary possession of plots 23-08 and 28-11 are required to facilitate the implementation of the proposed development which is in the public interest. We find the interference with the use of, and rights over, the land required for temporary possession would be both proportionate and justified in the public interest. In relation to the CA, the tests in s122 of PA2008 are met.

**M T Adams**

**Plot 24-09**

*Case for the affected person*

- 7.4.130 Mr Adams enjoys freehold interest in agricultural land sought to be temporarily possessed through the Order. Mr Adams objects to the proposed development due to the impact on the value of his property.

*Applicant's response*

- 7.4.131 Mr Adams' objection relates to the potential for injurious affection of the respondent's property. However, property valuation is not a matter which is considered in the Examination of the proposed development. Were such an effect to be alleged, a claim could be commenced under the National Compensation Code.

*ExA's conclusions*

- 7.4.132 Temporary possession of the plot is required to facilitate the implementation of the proposed development which is in the public interest. We find the interference with the use of, and rights over, the land required for temporary possession would be both proportionate and justified in the public interest.

**CEMEX UK Operations Ltd**

**Plots 24-28, 24-29, 24-32, 20-12, 20-12a, 20-20, 20-22, 20-23**

*Case for the affected person*

- 7.4.133 CEMEX UK Operations Ltd (CEMEX) own 44ha of land to the north of Riding Court Road and the M4 motorway. The land is a preferred mineral site being within Area 11 in the Replacement Minerals Local Plan for Berkshire 2001.
- 7.4.134 RBWM has granted planning permission (PP) (13/01667/FUL) for CEMEX to work 2.1m tonnes of sand and gravel, followed by restoration for a temporary period of 12 years. Extraction is expected

to begin in the Spring of 2016. The proposal also includes processing and concrete batching plants.

- 7.4.135 CEMEX as landowner has an interest in the land through which the proposed new Riding Court Road overbridge would be constructed. CEMEX seeks to ensure that the works to the Riding Court Road overbridge and between Junctions 5 and 6 and along Riding Court Road do not adversely affect its extraction, processing and restoration operations.
- 7.4.136 In terms of the extraction area associated with PP 13/01667/FUL, there is no overlap between the two schemes. But the red line for the Order Limits at proposed Work 22a does enter the application site. It is not clear why this land is included within the M4 proposed development and what disruption to CEMEX's business may occur in terms of its ability to use Riding Court Road, the James Meadow Roundabout and Ditton Road [REP2-046].
- 7.4.137 It is not clear what the temporary use of these lands would be and whether there would need to be realignment works along this stretch of road to accommodate the M4. This could have significant ramifications for the operation of the local road network and businesses which rely on using it.

*Applicant's response*

- 7.4.138 The new Riding Court Road overbridge would be constructed off-line, thereby maintaining vehicular access during the construction period and hence avoiding adverse effects on the operations of CEMEX.
- 7.4.139 There are three areas where the Order limits for the proposed development coincide with the site of PP13/01667/FUL. The Applicant provides a full account of the implications of this overlap in its comments on CEMEX' response to the ExA's first written questions [REP3-014.1].
- 7.4.140 Although there are some interfaces to manage as part of the works to allow the construction of the proposed development and the CEMEX proposals both to successfully proceed, the Applicant will continue to work to find mutually acceptable solutions. Details of the communication methods to be adopted during construction are described in the CEMP [REP9-002].

*ExA's conclusions*

- 7.4.141 The Applicant has indicated that it will work with CEMEX to minimise any disruption to extraction for which a planning permission is granted. Temporary possession of the plots is required to facilitate the implementation of the proposed development which is in the public interest. We find the interference with the use of, and rights over, the land required for temporary possession would be both proportionate and justified in the public interest.

***Iris Software Group Ltd***

***Plots 24-30, 24-31,***

*Case for the affected person*

- 7.4.142 Iris Software Group Limited (ISGL) owns and occupies Riding Court House, and enjoys rights of access over plots 24-30 and 24-31 in respect of Riding Court House and Units B and C.
- 7.4.143 Along with many other businesses, the company uses Riding Court Road and the overbridge to Datchet to gain access to its offices. The proposals to replace the Riding Court Road overbridge would have a significant and material impact on the ability of ISGL to access its offices and conduct its business properly. There appear to be no plans in the M4 application to show how the works would affect ISGL's access or indeed how it would access its offices during construction. This is unacceptable and further plans showing this should be submitted before a decision can be made regarding this application [RR-279].

*Applicant's response*

- 7.4.144 Plot 24-30 is required temporarily for working space for the realignment of Riding Court Road, and plot 24-31 is required permanently for the realignment of Riding Court Road.
- 7.4.145 Details of the realignment of Riding Court Road are shown on drawing 4.2 of Application Document Reference 6.2 Appendix 4.2. The new Riding Court Road overbridge would be constructed off-line, thereby maintaining vehicular and pedestrian access during the construction period. Access would be maintained to the businesses that use Riding Court Road during the construction of the realigned Riding Court Road and Riding Court Road overbridge. Communication would be maintained with local businesses throughout the construction period, as described in the outline CEMP [REP9-002].

*ExA's conclusions*

- 7.4.146 The Applicant has indicated that there would be no disruption to vehicular or pedestrian access during the construction of the realigned Riding Court Road and Riding Court Road overbridge. Temporary possession of plot 24-30 and permanent possession of plot 24-31 is required to facilitate the implementation of the proposed development which is in the public interest. We find the interference with the use of, and rights over, the land required for temporary possession would be both proportionate and justified in the public interest. The tests in s122 of PA2008 are met in respect of plot 24-31.

***Persimmon Homes Ltd and Bovis Homes Ltd***

***Plots 09-07***

*Case for the affected person*

- 7.4.147 Persimmon Homes (PH) and Bovis Homes (BH) have land interests at Hatch Farm Dairies, Winnersh. The land lies immediately to the north of the M4 motorway between Junctions 10 and 11 and north of plots 09-01 and 09-06 on the land plans [REP5-007.5 sheet 9]. Outline planning permission has been granted (ref. o/2006/8687) for residential and associated development at Hatch Farm Dairies.
- 7.4.148 BH has been listed in the Book of Reference in plot 09-07 in respect of a potential subsoil interest in the unregistered road (King Street Lane).
- 7.4.149 PH and BH are concerned that there may be overlap between the proposed development and the planning permission land in respect of land required to deliver the new junction arrangement at King Street Lane required for the implementation of the planning permission.

*Applicant's response*

- 7.4.150 King Street Lane is included on the land plans [REP5-007.5 sheet 9] in plot 09-07. This plot is listed in Table 2 of the SoR [REP5-007.3] as "*land within existing motorway boundaries retained for construction and operation of the scheme*". King Street Lane is not one of the bridges that would require development as part of the proposed development, and as such it is not anticipated to impact on the implementation of the planning permission. The land is included in the Order limits for the proposed development because of changes to the M4 carriageway above the structure and no work is required to King Street under the structure.
- 7.4.151 The Applicant provides a plan to show the relationship between the land subject to planning permission and the proposed development [REP5-004.7]. The Applicant states that there is no conflict between the proposed development and Bovis Homes' development that cannot be resolved, and that the proposed development with the acquisition of plot 09-07 does not have any potential to render the planning permission incapable of being implemented.

*ExA's conclusions*

- 7.4.152 The Applicant has indicated that there would be no conflict which would prevent the implementation of the planning permission. CA of the plot is required to facilitate the implementation of the proposed development which is in the public interest. The tests in s122 of PA2008 are met.

***University of Reading***

***Plots 07-03, 08-01, 08-04***

*Case for the affected person*

- 7.4.153 The University of Reading is a major landowner within the Shinfield area and is developing the Thames Valley Science Park for which access is provided by the Shinfield Eastern Relief Road (SERR). The SERR is due for completion in summer/autumn 2016.
- 7.4.154 The University generally supports the proposed development, but wishes to be satisfied that the commercial viability and attractiveness of the Thames Valley Science Park is not affected by the proposed development, and that there would be capacity at Junctions 10 and 11 to enable future developments along the A327 corridor and at Shinfield to be delivered.

*Applicant's response*

- 7.4.155 The acquisition of the plots 08-01, 08-04 would have no effect on the University's interests. Plot 07-03 is occupied by the University in respect of SERR [REP5-007.2]. The Applicant has met the contractor for the SERR and is maintaining contact to ensure that the final built details of the SERR are incorporated into the background mapping of the proposed development. The development of the proposed development has taken into account the planning policies of the Wokingham Core Strategy, and consented planning applications.
- 7.4.156 The proposed development has been designed to meet the five strategic aims set out in the SoR [REP5-007.3, REP3-023.43]. In the link between Junctions 10 and 11 the modelling shows reduced levels of congestion. As a result the proposed development would benefit the University's interests.

*ExA's conclusions*

- 7.4.157 The Applicant has indicated that the University's interests are being taken into account. CA of the plots is required to facilitate the implementation of the proposed development which is in the public interest. The tests in s122 of PA2008 are met.

***A1 South Ltd (trading as A1 Recycling, RR from A1 Grab Hire Ltd)***

***Plots 20-02, 20-02A, 20-05***

*Case for the affected person*

- 7.4.158 A1 Grab Hire Limited (A1) occupies land at South Yard at Orchard Herbs, Lake End Road, Dorney pursuant to a lease dated 1 July 2013. The entirety of the lease demise is included in the DCO for CA.
- 7.4.159 The acquisition of A1's interests in plots 20-02, 20-02A and 20-05 will render it impossible for A1 to continue its operations at the South Yard site. The Applicant has had insufficient regard to the impact on the proposals on local businesses.

- 7.4.160 Part of A1's land is scheduled for temporary possession and part scheduled for CA (including part of the access route). The effect of this is to sterilise the entirety of A1's land. In the event that access rights are retained, the severance of the land would so severely impact on the operations of the business that it would render the business operations in their current form from the site unviable.
- 7.4.161 A1 carries out business operations from its land. Fourteen days' notice for temporary possession is wholly inadequate for a business to cease operations and relocate to other premises.
- 7.4.162 Article 10(1) of the draft DCO would, if confirmed, authorise the Applicant to alter the layout of any street within the limits of the draft DCO and the layout of any street having a junction with such a street. The effect of this is to confer powers on the Applicant outside of the Order Limits. The effect of that has not been properly assessed. It does not confer powers on HE outside of the Order Limits.
- 7.4.163 Moreover, the schedule of interests to be acquired is incorrect as it fails to include A1 as an occupier of Plot 20-02.

*Applicant's response*

- 7.4.164 The BoR [REP5-007.2] lists A1 South Limited (of which A1 Grab Hire is a division) as occupier of plots 20-02, 20-02a, and in respect of rights over plot 20-05. The schedule attached to the notice of acceptance under Section 56 issued to A1 South Limited also listed these plots.
- 7.4.165 A longer span bridge is required to replace the existing bridge carrying Lake End Road over the M4 to accommodate four-lane ALR [APP-096]. As a consequence of consultation responses, the proposal for Lake End Road bridge has been amended to maintain suitable access for buses and boat trailers during construction [APP-096].
- 7.4.166 A diversion to the west of the existing alignment is required to avoid the residential properties to the East and as detailed in the SoR parcels 20-02a and 20-05 are required permanently for the realignment of Lake End Road and 20-02 is required for working space for the realigned Lake End Road and associated overbridge.
- 7.4.167 The CA process will take full account of impact on the operation of businesses (including any closures if valid and unavoidable) and proper compensation will be provided. Where agreement cannot be reached either as to the principle of acquisition, the amount of compensation, or both, it will be possible for affected persons to make claims under, and determined in accordance with, the National Compensation Code.
- 7.4.168 DCO Article 10(1) does not confer powers on HE outside of the Order Limits. All works that are proposed as part of the proposed development have been assessed in the ES [APP-136 et seq].

*ExA's conclusions*

7.4.169 CA of the plots is required to facilitate the implementation of the proposed development which is in the public interest. We find the interference with the use of, and rights over, the land required for temporary possession would be both proportionate and justified in the public interest. The permanent acquisition of plots 20-02a and 20-05 test meet the tests in s122 of PA2008.

***John Watters, Louisa Maxwell Watters***

***Plots 19-53, 19-54***

*Case for the affected persons*

7.4.170 As residents and owners of the small private road known as Amerden Lane, objections are raised to the use of the lane to access a new road for construction traffic in connection with the widening of Thames Bray underbridge. Ms Maxwell-Watters enjoys Category 3 interest in respect of rights of access to her property, The Other House. Ms Maxwell-Watters explicitly objects to the scheme.

7.4.171 In addition, access is to be gained from the motorway by tracking down the embankment. This would involve the loss of TPO protected forestation which protects the residents from the noise, atmospheric and light pollution generated by the highway.

7.4.172 This forestation took decades to establish and will take decades to re-establish. Expanding the bridge can be done without the proposed destruction for a small incremental engineering cost which will be more than compensated for by the avoidance of the cost of restoring the amenity [RR-235, RR-313, AS-036, REP2-026].

*Applicant's response*

7.4.173 The Thames Bray underbridge has insufficient width to accommodate ALR and would require widening. Amerden Lane is required for access for light construction vehicles only, primarily for the initial site set-up processes. The main construction access for heavy construction plant to the north east side of Thames Bray underbridge would be gained directly from the motorway by tracking down the embankment [REP-096]. Initial access for light construction equipment to assist in creation of this main access would be via Marsh Lane and a short stretch of Amerden Lane.

7.4.174 Construction traffic using Amerden Lane during this initial access period would be small scale (rigid body) and restricted to that needed to create and subsequently remove the temporary access - for example to install fencing and to put down/take up trackway - and that associated with preparation of the site to accept the main access - for example removing vegetation. Traffic control measures, such as stop/go boards, would be used for any construction traffic that cannot easily be passed by residents' vehicles along the short stretch of Amerden Lane between Marsh Lane and the temporary access (approximately 300m).

- 7.4.175 There would be close liaison with residents in accordance with Section 4 of the CEMP [REP9-002], with advance notice of any unavoidable significant loads. Disruption to residents would be minimal and contained to the periods for the initial enabling works and the final reinstatement works.
- 7.4.176 In terms of air quality, sensitive receptors north of the M4 in the Amerden Lane area are predicted to experience annual mean concentrations below the objective value ( $40\mu\text{g}/\text{m}^3$ ) both with and without the Scheme in the Opening Year (2022) [APP-189].
- 7.4.177 Removal of vegetation is required to enable the widening of the embankment in this location. The removal of trees in this location is not likely to result in a material change in the noise climate. A substantial band of trees is required to provide any significant noise attenuation. Removal of a thin band of trees, such as that proposed for the construction of the proposed development in this location, is unlikely to affect the propagation of noise from the motorway, which in any event is expected to reduce in this location [APP-152, APP-257].
- 7.4.178 In terms of light pollution, the existing vegetation does not presently act as a filter/screen to the existing M4 street lighting due to its lower height. It does act as a filter to views to the M4 traffic, particularly during the summer months, and its removal will make the existing night-time traffic on the motorway more noticeable, similar to daylight hours. Despite this, it is not considered that the illuminated traffic would result in obtrusive light due to the presence of the existing M4 lighting.
- 7.4.179 Replacement planting, and the use of modern Light Emitting Diode (LED) luminaires to replace the existing 250W and 400W high-pressure sodium luminaires, will potentially have a long term benefit, after Design Year 2037, in helping to filter the effects of the proposed development lighting compared to the present situation [REP3-023.24].
- 7.4.180 Effects upon residents and road users would be managed by means of the CEMP [REP9-002] and the CTMP [REP8-010]. Landscape restoration would be undertaken to restore those areas that are used temporarily for construction works for the scheme, and to ensure that the rural character and amenity of the area is preserved. The landscape mitigation measures for the scheme at Amerden Lane is set out in Sheet 19 of the Environmental Masterplan [REP8-105]. Replacement planting would be secured and maintained in accordance with a landscape strategy required by Requirement 9 in the recommended DCO. By design year 2037, the mix of deciduous and evergreen trees and other vegetation is expected to reach some 5m to 7m in height and would help conceal traffic on the M4.
- 7.4.181 The assessment for this area concluded that construction noise and vibration effects will generally be slight adverse for daytime, evening



and night-time works. Where more significant effects were identified for particular activities, it was noted that these activities were dynamic in nature, as the works moved along the scheme, and that these higher noise levels would prevail for only a short period of time, resulting in a slight adverse effect overall.

- 7.4.182 HE indicates that it would employ best practicable means to minimise noise and vibration levels during the works. There would be close liaison with Environmental Health Officers, affected residents and commercial operations, to ensure that noise and vibration during construction are effectively managed. The procedures for managing noise and vibration during construction, including a protocol for compliance monitoring, are documented in the CEMP [REP9-002], which will be finalised by the contractor, and agreed with relevant local authorities, prior to commencement of construction works.

*ExA's conclusions*

- 7.4.183 Schedule 8 to the DCO identifies the loss of TPO trees where the southern part of the TPO area overlaps with the Order limits. The replanting of the area would provide mitigation in the long term.
- 7.4.184 The Applicant indicates that mitigation would be put in place during both the construction and operation of the proposed development in order to minimise the impacts on the living conditions of local residents. The temporary possession of the plots is required in order to facilitate the construction of works necessary to the proposed development, which is in the public interest. We find that the public benefit would outweigh the impact on private interests in a way that is proportionate to the circumstances. The interference with the use of, and rights over, the land required for temporary possession would be both proportionate and justified in the public interest.

***Beverley Hakesley***

***Plots 19-41, 19-42, 19-47, 19-48, 19-53, 19-54***

*Case for the affected person*

- 7.4.185 Mr and Mrs Hakesley own and reside at Amerden Caravan Park. Their son James also resides at the site. As the site is approached via Amerden Lane, the M4 motorway is currently shielded from view by vegetation, including mature trees. Walking around their land which borders the M4, the land is screened from the motorway by trees and shrubbery [RR-323, REP7-177].
- 7.4.186 The business is a caravan and camp site, which accommodates tourists to Windsor and the surrounding area. The site attracts many returning visitors who enjoy the countryside feel and although the M4 is audible, it is not visible. It is equally screened from the footpath alongside the M4, crossing over the River Thames, which provides added security for visiting guests.

- 7.4.187 The Hakesleys have sought assurance that the M4 smart motorway would be replanted with mature vegetation so that it would again be fully screened. Furthermore, they suggest that the land adjacent to Amerden Lane which is owned by HE and known as Dorney Meadow be used to rehouse the badgers at the end of the property and planted, well before proposed work commences, with trees to provide a wooded area which would increase screening, sound proofing and air quality.
- 7.4.188 However, having seen detailed drawings of the proposed development works [REP7-177], they estimate that the temporary and permanent land take is some 25% of their entire site. The Hakesleys are concerned that they would not be able to operate during construction of the proposed development, which is due to be a period of three years. The Hakesleys submit that if they did try to trade during construction, customers would be faced with construction traffic turning into Amerden Lane, full views of the construction site with its heavy machinery and various disruption, including noise, works and traffic.
- 7.4.189 The Hakesleys are concerned that this would result in detrimental reviews of the caravan park. The Hakesleys submit that the impact on the business would be significant in the long term and that rebuilding the business post 2021 would not be viable.

*Applicant's response*

- 7.4.190 Of the plots affected, only 19-42 would be compulsorily acquired. This is 114m<sup>2</sup> verge and public footpath.
- 7.4.191 Alternative options for the widening of Bray Bridge have been considered [APP-096, Table 7], including symmetrical widening and widening to the south. However, those options are rejected on the basis that symmetrical widening of the bridge would result in impacts to both sides. Widening to the south is rejected, in particular, in light of impacts on Dorney School. Consequently, widening to the north is the preferred option [REP4-003].
- 7.4.192 The Applicant has also considered steepening the embankment to minimise permanent land take. However, this option would preclude any replanting of the embankment. The Applicant understands from a meeting with the Hakesleys that they wish the embankment to be replanted, which would preclude this option being taken forward.
- 7.4.193 The Thames Bray Bridge is a significant structure and the temporary land, which is within the ownership of the Hakesleys, is required for laydown areas and the preparation of the new bridge beams. In addition, it will be used to house the large cranes, which will be required to erect the new bridge.
- 7.4.194 The use of Amerden Lane is set out under the Applicant's case in response to Mr and Mrs Watters above. Disruption from construction traffic using the Lane would be minimal.

- 7.4.195 The clearance of vegetation would be required to carry out reinforcement works to the eastbound embankment resulting in the removal of the existing vegetation on it. With reference to the ES, it is also recognised that there are some trees at this location which may be affected and are covered by a TPO [APP-148]. It is a requirement of the CEMP that the contractor must identify, retain and protect these trees throughout the construction phase [APP-148]. In terms of replanting in mitigation, due to engineering limitations, it would not be possible to plant up the new reinforced embankment. Instead it is proposed to plant a 20m wide linear belt of tree and shrub planting at the toe of the embankment.
- 7.4.196 The Applicant acknowledges that during the proposed development construction there would be a large adverse significant visual effects on some views from the caravan park. New planting would have been carried out by the proposed development design year 2022, but would not have had time to establish and to mitigate the effects of the proposed development. Taking account of some 15 years of growth, the linear tree and shrub belt would over time, help to soften the appearance of the proposed development in the view. However, the Applicant recognises that it would not fully mitigate it, resulting in a slight adverse significance of visual effect [REP1.003.5].
- 7.4.197 Discussions have taken place about temporary planting to help mitigate the construction phase, and an extension outwards of the embankment to provide a slackened slope to be planted up with native species shrub and tree planting. It is anticipated that with the slackened embankment option the proposed shrub and tree planting, being more elevated in relation to that presently proposed, would help screen the traffic beyond over a shorter period of time. However, the proposed nearby Gantry G6-08 would not be screened under either scenario by Design Year 2037.
- 7.4.198 Any plans for relocating badgers remain confidential for their protection. As stated in response to Mr and Mrs Watters, who are residents and owners of Amerden Lane, the clearance of vegetation would not affect air quality and noise impacts.
- 7.4.199 Further discussions are also being held between the Hakesleys' surveyor and the surveyor advising the Applicant to discuss the likely impacts on the caravan park and the extent to which this can be reflected in a compensation claim [REP7-023].

*ExA's conclusions*

- 7.4.200 We recognise that the CA of plot 19-42, and the temporary possession of plots 19-41, 19-47, 19-48, 19-53, 19-54 at Amerden Caravan Park would have a significant adverse impact throughout the use of the land for construction upon the residential occupation of the site, and on its commercial operation. Following the completion of construction, with the loss of the significant screen currently provided by trees and shrubs between the motorway and the caravan park [REP7-177], it

would take many years for replacement planting to compensate. Even when mature, with the engineering limitations which restrict planting to the toe of the embankment, the current level of screening would not be achieved.

- 7.4.201 We note that the Applicant has considered alternatives to the northern widening of Bray Bridge, but there are significant constraints to any widening to the south. The CA of plot 19-42, and the temporary possession of plots 19-41, 19-47, 19-48, 19-53, 19-54 at Amerden Caravan Park are required in order to facilitate the construction of works necessary to the proposed development, which is in the public interest.
- 7.4.202 Article 29 of the DCO provides for compensation to be paid for any loss or damage arising from the temporary possession of the land. Nevertheless, we acknowledge the significance of the impacts of the proposed development on the living conditions and livelihood of the Hakesleys. We note that such interference would be temporary, but it would be over a substantial period of time, and it would be some years before the proposed mitigation would be effective and provide the level of screening from the M4 which is currently enjoyed.
- 7.4.203 Given the likely interference with the Hakesley's business, and the impact on the family's living conditions, we find that regard must be had to the provisions of the Human Rights Act 1998. The impact on living conditions and private property rights would amount to an interference with the private and family life and home of the residential occupiers in contravention of Article 8; and interference in the peaceful enjoyment of possessions in contravention of Article 1 of the First Protocol of the Human Rights Act 1998.
- 7.4.204 However, we recognise that the interference with the peaceful enjoyment of possessions and with private rights is necessary to the construction of the project. Furthermore, interference would be for a prescribed period and compensation would be available for the losses which would be experienced.
- 7.4.205 The proposed development is a very large scale project for which there is significant support in national policy. There are major economic and social benefits which would arise from the provision of additional capacity on the M4. The need to construct the project is such that we find that the public benefit would outweigh the interference with private interests in a way that is both proportionate and justified in the public interest. The tests in s122 of PA2008 are met.

## **7.5 PROTECTION OF INTERESTS: THE CASE UNDER S127 AND S138**

- 7.5.1 Sections 127 and 138 of PA2008 are engaged in this case. Article 31 of the DCO enables the compulsory acquisition of Statutory Undertakers' (SU) land or rights, and provides for the removal or repositioning of statutory undertakers' equipment. Article 32 makes

provision for interference with the apparatus and rights of statutory undertakers in stopped up streets.

7.5.2 A number of SUs made representations to the Examination . Schedule 9 to the recommended DCO includes provisions for the protection of interests of SUs that would potentially be affected by the proposed development. These have been negotiated between the Applicant and the other parties before or during the Examination.

7.5.3 The application draft DCO provided Parts 1-3 for the protection of the interests of Electricity, Gas, Oil, Water and Sewerage undertakers, Operators of Electronic Communications Code Networks and for the protection of Railway Interests. In the Applicant's final draft DCO [REP9-004], a further 5 parts (4-8) are added for the protection of National Grid, United Kingdom Oil Pipelines Limited and West London Pipeline and Storage Limited, the EA, Thames Water, and SEW. We add a further part (9) to protect the interests of HAL. We set out below any unresolved issues in respect of these provisions.

Parts 1-5:

7.5.4 There is no dispute as to the drafting of these provisions.

Part 6:

7.5.5 It is the EA's preference for maintenance to be dealt with in a side agreement. The EA's concern with providing for maintenance in the protective provisions is that they do not 'run with the land' and a situation could arise in the future whereby no-one is responsible for complying with them[REP7-173].

7.5.6 However, Article (A)7 gives the benefit of the order "*solely*" to the undertaker, subject to the ability to transfer the benefit with the SoS's consent (A8). A8(3) ensures that "*The exercise by a person of any benefits or rights conferred in accordance with any transfer or grant ... is subject to the same restrictions, liabilities and obligations as would apply under this Order if those benefits or rights were exercised by the undertaker*". So, the protective provisions in Schedule 9 (activated by A42) would remain in force for anyone to whom the benefit of the order is transferred. As a result we find that there are no grounds for the EA's concern

7.5.7 Other amendments to the schedule are sought by EA [REP9-044]. These were submitted at the end of the Examination so we have no response from the Applicant. We agree the minor change in wording to 70(2) on which there is unlikely to be any dispute. With regard to the changes proposed to 71(2), EA states that it requires access at all times to a relevant navigation or other main river. The amendment would require the Applicant to determine before any emergency may arise what alternative access should be provided if necessary. Whilst it may be argued that emergencies cannot be foreseen, since the navigation and main rivers are permanent features, where there is any prospect of construction activities interfering with an access, we

consider that it would be reasonable for the Applicant to plan in advance for alternative access to be made available. Nevertheless, the SoS may wish to satisfy himself on this matter.

Part 7:

- 7.5.8 The wording adopted by the Applicant in its final version of the draft DCO indicates that issues arising between Thames Water and the Applicant relating to access to the Slough sewage treatment works and with regard to the Iver South sludge dewatering centre have been resolved.

Part 8:

- 7.5.9 South East Water withdrew its objection to the proposed development on 3 March 2016 [AS-047] and, subject to consultation in respect of Requirement 14, all matters were agreed through a SoCG [REP9-039].

Part 9:

- 7.5.10 At the end of the Examination, HAL submitted a copy letter dated 2 March 2016, to the SoS [AS-043]. HAL does not object to the proposed development or to the temporary occupation of Plot 29-02. However, HAL requests the addition of a provision to protect its interests in respect of Plot 29-02 having regard to the provisions of Article 29(8)(a) and Article 31 of the DCO. HAL also requests a provision for consultation prior to the occupation of Plot 29-02 for use as a CC.
- 7.5.11 Tunnels carrying the Heathrow Express (HEX) run beneath Plot 29-02 and as drafted the DCO would permit the Applicant to acquire or interfere with the HEX tunnels and the apparatus running through them. A draft provision to protect HAL's interests and safeguard the safe operation of HEX is appended to HAL's letter.
- 7.5.12 Although the HAL request was made at a very late stage of the Examination, the Applicant has indicated that it has no intention to acquire or access the HEX tunnels [REP9-009], and agrees that suitable protection should be provided in the DCO. The Applicant puts forward minor amendments to HAL's draft provisions [REP9-010]. These narrow the provisions to make specific reference to the HEX tunnels. The Applicant considers there is no reason to afford HAL more general protection since interface between the proposed development and HAL's interests are confined to Plot 29-02 and the HEX tunnels.
- 7.5.13 The HAL wording applies in respect of "*Heathrow Airport property*", whereas the the Applicant's wording is "*any tunnel comprised in Heathrow Airport property*". If the tunnels really are the only property on the plots concerned, the amendment put forward by the Applicant would achieve the same result as the HAL wording. If, however, there is any HAL property which is not part of the tunnels (for example, electrical supply lines leading to the tunnels or any other apparatus), the Applicant's wording would not protect that property, but only the

tunnels. The Applicant's comments note that "*no other apparatus is identified*" [REP9-009], but HAL has not had the chance to respond or identify any.

- 7.5.14 The Applicant has not set out any reasons why the tunnels should be protected but not any other apparatus. We consider that (if there is any such other apparatus) it should be protected in the same way as the tunnels.
- 7.5.15 Furthermore the Applicant seeks the removal of references to works or indemnities as inappropriate. The use of Plot 29-02 would be at the surface and therefore there would be a very low prospect of any physical interference with HAL's interests. The Applicant argues that HAL would be sufficiently protected by the law of tort. Any dispute would be open to arbitration in accordance with A45 [REP9-009].
- 7.5.16 However, HAL is not specifically asking for any works/indemnities, but has sought to make it clear that the "*reasonable conditions ... necessary to protect*" its property could include indemnities or protective works. The HAL wording clearly states that the conditions have to be "*reasonable*" and "*necessary to protect*" HAL's property. So, if the risk of physical interference is low as argued by the Applicant, HAL would not be able to require work/indemnities, as they would not be reasonable.
- 7.5.17 In terms of any burden that the HAL wording would impose upon the Applicant, removing indemnities/physical works from the specified list would not stop HAL from requiring them. If they were considered reasonably necessary to protect HAL's property, the Applicant's wording would still allow HAL to require them.
- 7.5.18 The Applicant indicates that it has tried to contact HAL without success, and therefore the amendments proposed to the draft provisions submitted by HAL have not been discussed. The Examination closed on 3 March 2016, the day that the Applicant's response to HAL was received. It has not therefore been open to us to seek HAL's views on the Applicant's proposed changes.
- 7.5.19 We are not convinced by the arguments put forward by the Applicant to amend HAL's version of the provisions. In view of the lack of opportunity for HAL to respond, we consider it appropriate to adopt the HAL wording in the recommended DCO.

### **Conclusions on Protection of Interests**

- 7.5.20 We are satisfied that Schedule 9 overcomes any potential issues relating to statutory undertakers' land (PA2008 s127) or to the rights and apparatus of statutory undertakers (PA2008 s138).

### **The case under s131 and 132**

- 7.5.21 The Applicant is seeking powers of CA in the DCO in respect of common land and open space. Plots 10-01a and 10-01b within WBC

and Plots 20-03 within BCC and SBDC are registered common land within the Order limits.

- 7.5.22 Plots 10-01a and 10-01b are subject to CA. They were registered as common land following the decision of a Commons Commissioner dated 30 March 1973 [REP5-007.3, Appendix A]. The land forms a part of the M4 carriageway and was registered after the completion of the M4. We agree with the Applicant that the registration of this land as common land is most likely in error.
- 7.5.23 The Applicant intends to make a separate clarificatory/ confirmatory application (outside the DCO process) to the relevant commons registration authority, being WBC, under Section 19 of the Commons Act 2006 in order to correct the Commons Register, such that plots 10-01a and 10-01b are no longer registered as common land and can be subject to powers of CA without falling within the provisions of Sections 131 and 132 of PA 2008 [APP-083].
- 7.5.24 The SoR refers to the plots as being in the ownership of the SoS. However, we understand that ownership was transferred to HE when it replaced the Highways Agency in March 2015; therefore there is no CA required.
- 7.5.25 Nevertheless, in order to ensure that it is not necessary for the DCO to be subject to special parliamentary procedure, in accordance with s131(4) of PA2008, replacement land of equivalent size with its ownership secured, has been identified to be provided in exchange for these plots [REP2-003.8]. Article 35 of the recommended DCO provides that plots 10-01a and 10-01a are not to be discharged from rights, trusts and incidents to which they were previously subject until the SoS has certified that a scheme for the provision of the replacement land has been implemented.
- 7.5.26 Plot 20-03 is subject to temporary possession rights. No replacement land is provided, on the basis that the exception to special parliamentary procedure contained within s131(5) of PA2008 applies to the temporary possession of this plot.
- 7.5.27 Plot 20-03 is required on a temporary basis for the widening of Lake End Road and the M4 as part of the proposed development. We therefore accept that s131(5)(a) of PA2008 is satisfied.
- 7.5.28 Twenty eight plots of open space are intended to be acquired by the Applicant on a temporary basis. The Applicant sets out the reasons why special parliamentary procedure [REP5-007.4] is not required and we agree that it is open space in terms of s131(4B)(a); neither common land nor a fuel or field garden allotment in terms of s131(4B)(b); and is being acquired for a temporary purpose, thus satisfying s131(4B)(c).
- 7.5.29 The Applicant seeks powers of CA over allotment land comprising plots 20-25, 20-26 and 23-35. Powers of CA over allotment land are only subject to special parliamentary procedure under s131(1) of PA2008 if



the allotment land is a fuel or field garden allotment which is established under the Inclosure Act. In this case the allotments were established under the Allotment Act, so the question of special parliamentary procedure does not arise [REP5-007.4].

- 7.5.30 We agree with the Applicant that plots 20-25, 20-26 and 23-35 are allotment gardens, and can be subject to Articles 20 and 29 of the recommended DCO without being subject to special parliamentary procedure.

### **The case under s135**

- 7.5.31 With the replacement of the Highways Agency by HE in March 2015 all SoS interests were transferred to the Applicant under the provisions of the Infrastructure Act 2015<sup>82</sup>. There was some concern by the Applicant that the transfer had not been effected in relation to a right held by DfT pursuant to a Deed dated 21 February 2013 with Network Rail. However, the Department for Transport confirms that the right transferred to HE under the statutory transfer scheme on 1 April 2015 [REP7-015].

- 7.5.32 There is an issue as to whether other Crown interests are held by the Secretary of State for the Environment, Food and Rural Affairs (SoSefra). On the 2 March 2016 the matter was referred by the Applicant to the Treasury under s227(6) of the PA2008 for a decision as to what is the appropriate Crown authority under s135 in this case [AS-044]. The issue was not resolved before the end of the Examination. However, the Applicant points out that there is a precedent for s135 consent being granted after the close of the Examination, as in the case of the Able Marine Energy Park Development Consent Order [REP7-023].

## **7.6 THE EXA'S OVERALL CONCLUSIONS IN RESPECT OF CA**

- 7.6.1 Our approach to the question of whether and what CA powers we should recommend to the SoS to grant has been to seek to apply the relevant Sections of the PA2008, notably s122, s123, s127, s131, s132 and s138, the Guidance<sup>83</sup>, and the Human Rights Act 1998<sup>84</sup>. Furthermore, in the light of the representations received and the evidence submitted, we have considered whether a compelling case has been made in the public interest, balancing the public interest against private loss.
- 7.6.2 We have considered the proposals set out in the Applicant's final BoR [REP5-007.2], as supported by the SoR [REP5-007.3]. We are satisfied that the Applicant has sought to minimise the CA of land or rights wherever possible, and is taking steps to minimise impact on

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<sup>82</sup> <http://www.legislation.gov.uk/ukpga/2015/7/contents/enacted>

<sup>83</sup> Planning Act 2008, Guidance related to procedures for compulsory acquisition (CLG, 2013)

<sup>84</sup> <http://www.legislation.gov.uk/ukpga/1998/42/contents>

the interests of the owners, occupiers and users of land where temporary possession is sought.

7.6.3 We have identified above those plots to which objections remained at the close of the Examination, and concluded in respect of each objector as to whether or not the powers sought through the DCO are necessary and proportionate in each case. We have identified those cases in which there would be a significant impact on the owners, occupiers or users of the land and assessed whether or not such impact is justified as a result of the public benefit that would accrue from the proposed development and which we have identified throughout our report.

7.6.4 The ExA understands, however, that the draft DCO deals with both the development itself and CA powers. The case for CA powers cannot properly be considered unless and until we have formed a view on the case for the development overall, and the consideration of the CA issues must be consistent with that view.

7.6.5 We have shown in the conclusions drawn in Chapter 6 that we have reached the view that development consent should be granted. The question therefore that the ExA addresses here is the extent to which, in the light of the factors set out above, the case is made for CA and temporary possession necessary to enable the development to proceed.

#### **Human Rights Act<sup>85</sup> 1998 considerations**

7.6.6 Article 1 of the First Protocol is concerned with the rights of those whose property is to be compulsorily acquired and whose peaceful enjoyment of their property could be interfered with. It is clearly engaged because a number of interests are proposed to be acquired and rights are to be imposed on further land. In addition to CA, extensive land would also be used temporarily. In our judgment CA and temporary possession of land is justified insofar as the public benefit would outweigh the loss of private interests in a way that is proportionate to the circumstances.

7.6.7 Article 6 is also engaged. It entitles those affected by CA powers to a fair and public hearing of their objections. The requirements of this article have been fully met through compliance with the procedures of PA2008 and associated regulations and because in reaching our conclusions we have had regard to all representation made in writing and orally.

7.6.8 Whilst no person would be deprived of their home, we find that the residential occupants of the Amerden Caravan Park would be likely to suffer interference with the peaceful enjoyment of their homes. Article 1 of the First Protocol and Article 8 of the Human Rights Act are

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<sup>85</sup> <http://www.legislation.gov.uk/ukpga/1998/42/contents>

engaged. Nevertheless, in view of the importance of the proposed development to the delivery of Government policy, and the significant economic and social benefits that would arise, we find that the public benefit outweighs the interference with private interests in a way that is both proportionate and justified in the public interest.

### **Alternatives and adequacy of funding**

- 7.6.9 Alternatives to the proposed development are addressed in detail by the Applicant, and we refer to these earlier in our consideration of the Applicant's case for CA. We are satisfied that the proposed development is both necessary and proportionate in terms of delivering significant public benefit through Government policy, and in terms of demonstrating value for money.
- 7.6.10 The ExA considers that there are no reasonable practicable alternatives to the proposed development for which development consent is required, or for engineering elements within the proposed development. Consequently, there are no reasonable practicable alternatives to the land required for the proposed development and for which CA is proposed. Where representations have been made by IPs querying the design of the proposed development, in particular in respect of the replacement of some overbridge structures, we are convinced by the Applicant's submissions which are founded on a sound evidence base.
- 7.6.11 In respect of funding, the Government is clearly committed to delivering the proposed development through HE, and estimated capital costs are well within the RIS budget. Having regard to the DCLG Guidance in respect of the adequacy and security of financial resources, we are satisfied that funding is available.

### **The ExA's Recommendations on the Granting of CA powers**

- 7.6.12 As a consequence of the Examination process, we are satisfied that the proposed development is for a legitimate purpose, that there is a likelihood of sufficient funding being available and that each plot to be acquired has been identified for a clear purpose.
- 7.6.13 In respect of the test set out in s122(2) of the PA2008, we are satisfied that all of the land in respect of which CA is sought is required for the development to which the development consent relates or is required to facilitate it or is incidental to that development.
- 7.6.14 In respect of the test set out in s122(3), we are also satisfied that there is a compelling case in the public interest for the land to be acquired compulsorily as there are no achievable alternatives to meet the objectives sought and the public benefit outweighs the loss to private interests or the restrictions imposed on those interests.

- 7.6.15 Schedule 9 of the recommended DCO would overcome any potential issues relating to statutory undertakers' land (PA2008 s127) or to the rights and apparatus of statutory undertakers (PA2008 s138).
- 7.6.16 In respect of the tests set out in s131 and s132, plots 10-01a and 10-01b already form a part of the M4 and a correction of its status by the commons registration authority is likely to resolve the issue. However, the land secured as replacement common land within the DCO would most certainly be no less advantageous to those with rights of common, as the common land and rights over common land which are proposed to be compulsorily acquired. In relation to other temporary possession and permanent acquisition of open space and allotment lands, we are satisfied that s131 and s132 are not engaged.
- 7.6.17 So far as human rights are concerned, we are satisfied that the Examination process has ensured a fair and public hearing; that any interference with human rights arising from implementation of the proposed development is proportionate and strikes a fair balance between the rights of the individual and the public interest; and that compensation would be available in respect of any quantifiable loss. There is no disproportionate or unjustified interference with human rights so as to conflict with the provisions of the Human Rights Act 1998.
- 7.6.18 In the ExA's judgement there is a compelling case in the public interest for the CA of the land and rights sought for the proposed development. So far as temporary possession is concerned, the ExA is satisfied that the land is required and that the associated provisions for return and reinstatement are appropriately secured.
- 7.6.19 With regard to the incorporation of other statutory powers pursuant to s120(5)(a) we are satisfied that as required by s117(4) the DCO has been drafted in the form of a statutory instrument, and that no provision of the DCO contravenes the provisions of s126 which preclude the modification of compensation provisions.

## **8 DRAFT DEVELOPMENT CONSENT ORDER AND RELATED MATTERS**

### **8.1 INTRODUCTION**

- 8.1.1 A draft DCO [APP-026] was submitted by the Applicant as a part of the application for development consent. We raised questions on the content of the DCO in our FWQ which accompanied the Rule 8 letter [PD-005]. The Applicant submitted Revision 1 to the DCO in response to those questions [REP2-002.16].
- 8.1.2 At Deadline III, the Applicant submitted a further revised DCO [REP3-005] and an explanatory note which sets out its proposals for the discharge of the DCO Requirements by the SoS [REP3-015]. An ISH on the DCO [EV-011] was held on 19 November 2015 which included discussion of these proposals.
- 8.1.3 A SWQ was published on 11 December 2015 with further questions relating to the Applicant's DCO [PD-011]. A further iteration of the DCO was submitted at Deadline V [REP5-002.16] which reflected the position taken by the Applicant in response to the SWQ.
- 8.1.4 In response to our request at the second ISH on the DCO [EV-029] on the 12 February 2016, a further iteration of the Applicant's draft DCO was submitted [AS-042]. We used this version to produce our ExA's draft DCO which was issued on the 17 February 2016 [PD-014]. The Applicant's final draft DCO was submitted on 3 March 2016 [REP9-004]. We base the final version of the draft DCO as recommended by the ExA (Appendix D) on the Applicant's document of the 3 March 2016.
- 8.1.5 The draft DCO was accompanied by an EM [APP-027] which was updated at Deadline III with a comparative EM [REP3-002] and a clean version [REP3-013].

#### **Summary of changes**

- 8.1.6 A number of changes were made to the DCO in the Examination, although no change was made which would constitute an amendment to the proposed development. We list the main changes below. In this report we do not discuss every change made to the DCO where there has been agreement. Nor do we duplicate discussion where significant issues and implications for the DCO have been subject to substantive consideration in Chapter 5 above.
- 8.1.7 In summarising the changes, we refer to the differences between the draft DCO [APP-026] which was submitted with the application and the recommended DCO as submitted to the SoS. We do not include amendments made to correct drafting errors:

- all references to Highways Agency have been changed to Highways England and typographical errors have been corrected throughout the process;
- Interpretation:
  - "commence" - deleted. Recommended DCO relies on the definition of "commence" as set out in s155 of PA2008;
  - TSCS meaning thin surface course system has been added;
- Article 3(2)- deleted. Provided a very general power with little limitation in its scope;
- Article 3(4) - deleted. Duplicates the provision made in Article 3(3);
- Article 6 - final clause deleted. Undermined clarity as to the extent of the development;
- Article 14(6), Article 17(9), Article 19(6) - amended. Extends the period for the relevant discharging authority to notify the undertaker of its decision from 28 days to 6 weeks;
- Article 36 "Power to operate and maintain the authorised works" - deleted as unnecessary;
- Article 44 "Temporary prohibition of traffic" - deleted as unnecessary. The Applicant has powers to make Traffic Regulation Orders when necessary. Article 14 and Article 46 in the recommended DCO provide the Applicant with the necessary powers to agree, where required, and install traffic management within the Order limits to enable construction of the Scheme;
- Article 45 becomes Article 43 in the recommended DCO and the references and dates of the plans and documents to be certified by the SoS are added and updated;
- Article 49 becomes Article 47 in the recommended DCO. Amendments to the article reflect the procedures introduced under Part 2 of Schedule 2 (procedure for the discharge of requirements) and under Schedule 11 (procedure for the discharge of certain approvals);
- Schedule 2 Part 1: a number of changes are made to the requirements and we deal with these in detail below;
- Schedule 2 Part 2: inserted to set out the procedure for the discharge of requirements;
- Schedule 7 "Land of which temporary possession may be taken": changes are made to the list of plans and are dealt with in the Chapter on CA and land matters;
- Schedule 9 "Protective Provisions" - amended to "Protection of Interests". A further 6 provisions added to deal with the interests of National Grid, United Kingdom Oil Pipelines Limited and West London Pipeline and Storage Limited, the EA, Thames Water, SEW and HAL. We deal with any remaining issues as to the wording of the protection of interests below;
- Schedule 10 - deleted. New Schedule 10 inserted to list documents subject to certification;
- Schedule 11 - the procedure for the discharge of certain approvals is amended;
- Schedule 12 - inserted to set out an extended list of the engineering drawings, sections and other information which were previously listed under Requirement 6.

## Structure of the DCO

8.1.8 The DCO comprises 7 Parts and 12 Schedules as follows:

### *Parts 1-7*

- *Part 1*- contains the preliminary provisions providing for commencement, citation and interpretation. There was some discussion as to the definitions in Article 2, and these were agreed with the Applicant before the close of the Examination;
- *Part 2* - sets out the principal powers within Articles 3 to 8. There was discussion as to the extent of the powers sought, in particular under Articles 3 and 6 which have been amended in agreement with the Applicant;
- *Part 3* - A9 to A16 sets out powers under the 1991 New Roads and Streets Act, together with powers to alter streets, carry out street works, undertake construction and maintenance of new, altered or diverted streets, the permanent and temporary stopping up of streets, access to works and powers in relation to relevant navigation or watercourses. The EA raised concerns about the powers sought under A16. Schedule 9 Part 6 has been included to address the EA's concerns. There remained some issues about wording of the provisions for the protection of interests at the close of the Examination which we deal with below;
- *Part 4* sets out supplemental powers in A17 to A19 to deal with discharge of water, protective work to buildings and authority to survey and investigate land;
- *Part 5* contains the powers in relation to acquisition and possession of land. A20 to A35 provides for the CA of land, with a time limit of 5 years from the date that the Order is made to issue notices to treat. It includes provision for CA of rights, the power to override easements and rights, the extinguishment of private rights, the acquisition of subsoil or air space only, acquisition of parts of certain properties, rights under or over streets, temporary use of land for carrying out works and maintenance, rights in relation to statutory undertakers, the incorporation of the mineral code and for special category land;
- *Part 6* deals with the operation of the authorised development. Articles 36 and 38 from the originally submitted DCO have been deleted with the agreement of the Applicant. Renumbered A36 sets out restrictions on executing works and A37 safeguards the existing powers and duties of the undertaker;
- *Part 7* contains a number of miscellaneous and general provisions in A38 to A48. These deal with issues relating to trees, operational land, defence to proceedings in respect of statutory nuisance, certification of plans, services of notice, arbitration, traffic regulation and provision for extension of the time limit for the DCO. A43 gives effect to Schedule 9, and A47 deals with procedure in relation to certain approvals and gives effect to Schedule 12.

## *Schedules*

- Schedule 1 - lists the works comprising the proposed development, identifying the local authority area in which specific works fall;
- Schedule 2
  - Part 1 lists the requirements which set out the processes and procedures to be applied in implementing the proposed development;
  - Part 2 sets out the procedure for the discharge of requirements by the SoS. We deal with issues arising from this provision below;
- Schedule 3 - lists streets that are to be permanently stopped up pursuant to Article 13;
- Schedule 4 - lists streets that are to be temporarily stopped up pursuant to Article 14;
- Schedule 5 - lists land in which new rights may be acquired pursuant to Article 22(2);
- Schedule 6 - sets out the modifications of compensation and compulsory purchase enactments for the creation of new rights pursuant to article 22(3);
- Schedule 7 - sets out the land of which temporary possession may be taken pursuant to Article 29;
- Schedule 8 - sets out the trees subject to tree preservation orders in respect of which the undertaker may exercise powers pursuant to article 39;
- Schedule 9 - sets out provisions for the protection of interests in 9 Parts pursuant to Article 42;
- Schedule 10 - lists documents subject to certification pursuant to Article 43;
- Schedule 11 - sets out the procedure for the discharge of certain approvals, where the discharging authority is not the SoS, pursuant to Article 47(2);
- Schedule 12 - lists the engineering drawings, sections and other information which accompany the application as referred to in Requirement 6.

## **8.2 ARTICLES**

- 8.2.1 The main areas of discussion relating to the Articles were resolved in the course of the Examination and as a result there are no issues concerning the format or content of the Articles in the recommended DCO.

## **8.3 DESCRIPTION OF WORKS**

- 8.3.1 In the preamble to the draft DCO and in paragraph 5.1.8 of the SoR [APP-030], the proposed development is stated to be both an alteration and an improvement of a highway. A table was submitted by the Applicant to identify which of the works fall within each category [REP2-002.15]. As a result we are satisfied that the



proposed development falls within both s22(1)(b) and s22(1)(c) of PA2008.

8.3.2 Plans that SoS would need to certify under Schedule 10 are identified in Article 43.

#### **8.4 PROCEDURE FOR DISCHARGING REQUIREMENTS**

8.4.1 The application draft DCO made provision for requirements to be discharged by the relevant planning authority. Relevant planning authority is defined in A2(1) of the draft DCO as the 'local planning authority for the land in question'. This means that each LPA within whose area the proposed development passes would be required to approve each requirement in Schedule 2 of the draft DCO. Consequently, each requirement might have to be discharged by up to 11 separate LPAs [REP3-015].

8.4.2 The Applicant is concerned that LPAs would not have the capacity to discharge the DCO requirements without causing delay to the implementation of the proposed development. A number of LPAs affected by the proposed development, such as LBHill, have reflected this view. Having regard to the large numbers of residential properties<sup>86</sup>, schools, places of worship, and community facilities [APP-152] potentially subject to the impacts of the construction and operation of the proposed development, we voiced concerns that it was important that these receptors have the opportunity to be involved in the detailed approval of matters which might affect their environment. These would include, for example, the details of Works listed in Requirement 3, the details of the EMP (Requirement 7) and CEMP (Requirement 8), landscaping (Requirement 9), fencing (Requirement 10), lighting (Requirement 19), control of noise (Requirement 21) and acoustic barriers (Requirement 22).

8.4.3 We suggested the formation of a Panel of LPA representatives which would be provided with funding by the Applicant to undertake the duties of the LPAs in discharging the requirements, but this was not taken forward by the Applicant in view of potential costs, and in the absence of any significant support from LPAs.

8.4.4 Opportunity is provided for local people to be informed of, and to comment on, details submitted to discharge requirements, through Schedule 2 Part 2 paragraph 4(1)-(4). This sets out details of the consultation which is to be carried out with respect to any requirement which necessitates details to be submitted to the SoS for approval. Consultation with relevant LPAs and any relevant statutory consultees (such as the EA, Historic England or NE) is to be carried out before the details are submitted to the SoS. The results of the consultation are to be taken into account by the Applicant, and where appropriate,

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<sup>86</sup> Some 44,259 within 1 km

changes are to be made to the details in response to matters raised through consultation.

- 8.4.5 A summary report which sets out the consultation undertaken and the way in which the results inform the details submitted is to accompany the detailed submission to the SoS. The summary report is to be copied at the same time to the relevant consultees. Where the details are not amended in response to the consultation, the report must explain why.
- 8.4.6 LBHill and other LPAs requested that the Applicant pay a fee to cover the Councils' participation as consultees, since the same level of work would be required in terms of the use of technical or specialist resources, and consultation with local residents and organisations. The Applicant points out that both the Applicant and the LPAs are the "creature of statute". The Applicant is not a private developer, and there is no legal power for the Applicant to pay taxpayer money to a LPA for a non-statutory consultation. Furthermore, there is not the same level of work involved in a non-statutory consultation as would be the case for the discharge of a requirement [EV-040]. In these circumstances we are not able to support the establishment of a fee arrangement.
- 8.4.7 We find that the provision for consultation, and the reporting of that consultation to the SoS would secure the involvement of statutory consultees on matters such as contaminated groundwater, flooding, protected species and archaeology. Through the involvement of the LPAs, there would also be an opportunity for local communities and individuals who are directly affected by such matters as new acoustic fencing, to become engaged in the process.
- 8.4.8 In addition to the details of consultation, provision is made in Schedule 2 Part 2 paragraph 3(1)-(3) for a register to be held in electronic form accessible by members of the public, of those requirements which provide for further approvals to be given by the SoS. The register would be updated to set out the status of each requirement in terms, for example, of whether it is before the SoS for approval. The register would be maintained for 3 years following the completion of the authorised development.
- 8.4.9 Having regard to the number of local authority jurisdictions through which the proposed development passes, we consider that the procedure set out in the recommended DCO is appropriate in order to avoid delay in the discharge of requirements and consequent implementation of the proposed development. With the provisions made for consultation and for a public register of status, we are satisfied that the interests of statutory authorities and IPs would be safeguarded, and that a fair and transparent procedure for the discharge of requirements would be achieved.
- 8.4.10 In reaching this conclusion we note that the provision made for the SoS as discharging authority does not affect the ability of the LPA's to

enforce breaches of the DCO under PA2008 s161. This further protects the interests of the public who would generally find the LPA more accessible to contact than the Applicant or the SoS in the event of any impact from a potential breach.

## **8.5 REQUIREMENTS**

- 8.5.1 Through the course of the Examination there was an ongoing process of discussion and refinement of the requirements. In particular a number of requirements in the Applicant's draft DCO included the inappropriate use of tailpieces such as "*unless otherwise approved by the relevant planning authority*"; a number lacked an implementation clause; and there was also debate as to the need for maintenance clauses having regard to the Applicant's duties under its licence.
- 8.5.2 We set out below the background to specific requirements where particular issues have been raised, and recommend that one further requirement be added. We also deal with any substantive amendments to the requirements in the Deadline IX version of the Applicant's draft DCO [REP9-004] which we have made in the recommended DCO.
- 8.5.3 In our consideration of the proposed requirements, we have had regard to the advice and tests set out in Planning Practice Guidance on 'Use of Planning Conditions', the principles of which are applicable to the imposition of requirements.
- 8.5.4 *Requirement 3: Detailed Design:* we add a clause to require consultation with the relevant local authority and any relevant statutory authority prior to submission of details to the SoS in accordance with the procedure for the discharge of conditions.
- 8.5.5 *Requirement 5: Carriageway surfacing:* the provision of low noise surfacing is a major component of the noise mitigation put forward by the Applicant in support of the proposed development. The motorway passes through areas of dense development in which noise from the current operation of the road has a significant effect on the living and working environment of local communities. With the introduction of ALR, traffic would be closer to sensitive receptors, and the proposed development would also enable an increase in the capacity of the motorway to accommodate more traffic. It is in view of the importance placed by the Applicant on low noise surfacing in mitigation of noise impacts that we consider R5 should require all future road re-surfacing to incorporate the noise reducing properties of low noise surfacing throughout the operational life of the proposed development, unless otherwise approved by the SoS.
- 8.5.6 The Applicant argues [REP7-017] that it may be that in the future it is no longer a policy to use low noise surfacing, the material may not be available, it may no longer be economical, or circumstances may have changed on the strategic road network such that it is no longer necessary or appropriate. However, in the event that any of these

circumstances are compelling, it would be open to the Applicant to make its case for a change from low noise surfacing to the SoS.

- 8.5.7 *Requirement 8 Construction Environmental Management Plan:* Throughout the Examination concerns were expressed by local authorities and others, including the EA [REP8-121] that the outline CEMP lacked detail and there was uncertainty that all types of impact would be covered. We put forward an alternative, more prescriptive, version of R8, based on *The Cornwall Council (A30 Temple to Higher Carblake Improvement) Order February 2015* as part of our second written questions [PD-011 8.25]. This was supported by a number of IPs [REP5-014, REP5-015, REP5-018]. However, the Applicant states that provided the DCO, the CEMP and its associated documents are read together, the mitigation measures listed in the ExA's proposed version are subject to other requirements in Schedule 2. This is illustrated in the Applicant's table which outlines the securing of mitigation [REP7-032].
- 8.5.8 From the Applicant's submissions, the detailed matters listed in our version of R8 set out in SWQ [PD-011], and those listed in the more recent East Midlands Strategic Rail Freight Interchange DCO, are secured by other requirements in addition to R8. Furthermore, the final version of the CEMP remains to be subject to further scrutiny to discharge R8. In these circumstances we are satisfied that the version of R8 favoured by the Applicant is appropriate.
- 8.5.9 *Requirement 9 Implementation and maintenance of landscaping:* Requirement 9 has been amended by the Applicant [REP9-004] to ensure that the approved landscape scheme would include a programme for implementation.
- 8.5.10 *Requirement 14 Surface water drainage:* SEW is satisfied that its inclusion as a consultee, in addition to the lead local flood authorities, in this requirement would help secure the protection of the Beenhams Heath site. We therefore include SEW as a consultee. The lead local flood authorities including BCC [REP8-118] raise concerns regarding ponding water and the poor operational capacity of the drainage system after heavy rain. This is a matter which we have also observed during our use of this section of the M4. As a result a maintenance clause is sought in R14.
- 8.5.11 The Applicant explains [REP5-005.1] that the current drainage network within and serving the M4 was not designed to the current HE design standard to accommodate a 1 in 5 year storm event and is not resilient to the predicted impacts of climate change, such as the predicted increased frequency of intense rain storm events. Regardless of current maintenance regimes, it is therefore expected that during heavy or intense rain storms that exceed the current design capacity of the drainage network, the M4 may currently be subject to accumulation/ponding of surface water on carriageways.

- 8.5.12 HE's maintenance service provider has a contractual duty to comply with the requirements set out in the Asset Maintenance and Operational Requirements (AMOR), which state that there should be no standing water on traffic lanes. The maintenance service provider has agreed a Maintenance Requirement Plan with HE to ensure that it meets these requirements. As, under the smart motorway regime, the hard shoulder would become a traffic lane, the maintenance service provider would have to amend its Maintenance Requirement Plan accordingly.
- 8.5.13 The Applicant states that the design of the smart motorway drainage system, as set out in the DSR [REP5-002.18], and the final details of which would require the approval of the SoS, would provide an efficient surface water drainage system. Since HE is required to carry out maintenance to the drainage system in accordance with its Licence, it asserts that a maintenance clause within Requirement 14 is not necessary.
- 8.5.14 The duty to maintain which is within the HE licence is a general duty which applies across the whole strategic road network. The application of that duty would in our view involve weighing conflicting priorities in order to determine how maintenance funds should be spent. As a result there is no guarantee that the system would be maintained to prevent ponding. Nevertheless, we have no evidence to suggest that ponding causes any impact outside the confines of the motorway. If the concerns about ponding relate solely to the operation of the motorway, we must assume that HE would meet its statutory responsibilities and the addition of a maintenance clause would not be justified.
- 8.5.15 *Requirement 15 Archaeological remains:* the Applicant amended Requirement 15 to include consultation with Historic England and the relevant local authority [REP9-004] so the requirement is acceptable.
- 8.5.16 *Requirement 22 Acoustic barriers:* reliance is placed by the Applicant upon the installation and replacement of acoustic barriers to achieve effective noise mitigation. The Applicant relies on the general duty under its licence to argue that a maintenance clause is not necessary in this requirement. However, in a number of locations, the barriers are located to the rear of residential properties, or provide mitigation for schools and recreational uses. If the general duty is relied on, the Applicant could reasonably determine that its maintenance funds be spent elsewhere rather than, for example, used to replace a damaged or aged barrier adjacent to a sensitive receptor within this proposed development. With the imposition of a maintenance clause within Requirement 22, the relevant LPA would be in a position to take enforcement action if required against HE to safeguard any individual or organisation affected by the poor condition of an acoustic barrier.
- 8.5.17 We recognise that there is no end date provided to the maintenance period within the version of Requirement 22 put forward in our draft DCO [PD-014]. We have therefore amended Requirement 22 in the

recommended DCO to enable maintenance to come to an end under Requirement 22 with the approval of the SoS in consultation with the relevant local authority.

- 8.5.18 *Requirement 23 Flood Risk:* This requirement has now been agreed with the EA and there are no remaining issues [REP5-002.5].
- 8.5.19 *Requirement 26. Air quality management scheme:* we set out in Chapter 5 within the Section headed Air Quality, the reasons why we consider that an additional requirement to oblige the Applicant to undertake air quality monitoring followed by mitigation if required, would be justified. Here we consider the detailed construction of an appropriate requirement in the event that the SoS agrees with our recommendation to include it within the DCO.
- 8.5.20 A draft requirement for an air quality management scheme was set out in our draft DCO [PD-014, R25]. In the Applicant's response to the ExA's draft DCO [REP8-005, 16] it sets out its arguments against the need for such a provision. We have considered these in Chapter 5, and do not repeat them here. In this part of the report, we consider the specific drafting points raised by the Applicant and LBHill. Support for the proposed requirement was provided by LBHill [REP8-112], RBWM [AS-026], WBC [AS-049], and SBC [REP4-034] and other IPs including PHE [REP4-029] and CBT [REP8-119]).
- 8.5.21 Taking each of the proposed amendments put forward by the Applicant, we accept that monitoring should be restricted to areas in which predicted changes may be above  $0.4\mu\text{g}/\text{m}^3$  and the annual mean concentrations above objective value, in accordance with the level of significance for air quality effects set out in IAN 174/13<sup>87</sup>. The changes suggested to 25(1)(a) are accepted. The addition of a clause to enable the avoidance of any duplication of monitoring is also reasonable and accepted.
- 8.5.22 Deletion of sub-paragraph (1)(d) is sought in its entirety by the Applicant. However, we are not suggesting that compliance with EU Limit Values is the responsibility of the Applicant. Our concern is that precautions are taken to ensure that the M4 smart motorway does not increase air quality levels above EU limit levels in the interests of the health of the local communities which live adjacent to the motorway. Sub-paragraph (1)(d) is intended to provide the criteria by which an end date for the monitoring is to be identified. We recommend an amended version of (1)(d) to meet the Applicant's concerns. This relates to results which are tested against an annual objective, and which arise as a result of the proposed development.
- 8.5.23 With reference to the changes proposed by the Applicant to sub-paragraph (2), for the review of monitoring data, for the reasons given by the Applicant, we accept that these are reasonable. We delete the

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<sup>87</sup> <http://www.standardsforhighways.co.uk/ians/pdfs/ian174.pdf>

reference to "reputable" as inappropriate but otherwise amend (2) accordingly. We also agree that the changes put forward by the Applicant to (2)(a),(b) and (c), relating to the agreement and timing of any mitigation scheme, are reasonable and amend the proposed requirement accordingly.

- 8.5.24 We have considered the wording put forward by LBHill for this requirement [REP8-112] and the Applicant's response [REP9-015]. The LBHill version of the requirement seeks a more comprehensive scheme of monitoring, with the report of the monitoring data communicated to the relevant local authorities for the AQMAs either through direct access to monitoring or on a monthly basis through the year. However, the air quality requirement must be directly related to the proposed development in order to be justified in accordance with NPPG on the Use of Planning Conditions. It is not clear what purpose would be served in requiring the provision of unvalidated measurement data to the local authorities.
- 8.5.25 In addition, LBHill's proposed wording fails to link the required duration of the monitoring to the impacts of the proposed development. It is linked to exceedances in general. These are predicted to occur regardless of whether the proposed development is delivered, and may not be as a result of the proposed development. The monthly assessment of air quality objectives would also be excessive in view of the provisions of the Local Air Quality Management (LAQM) regime which requires the reporting of monitoring results on an annual basis.
- 8.5.26 For the reasons set out above, we do not accept LBHill's proposed requirement. We consider that with the amendments identified above, the proposed requirement would be directly related to the proposed development, precise and reasonable.
- 8.5.27 The requirement as set out below, would secure the involvement of the relevant local authorities ("the air quality authorities") in the arrangements for monitoring and in the design of a scheme for mitigation if it is necessary. We have added a further stage of consultation between the SoS and the air quality authorities to ensure that any scheme takes into account the AQAPs. We recommend that the following requirement is added to the approved DCO:

*Requirement 26 Air quality monitoring and management*

*26.—(1) No part of the authorised development must commence until the undertaker has prepared a monitoring scheme for NO<sub>2</sub>. The monitoring scheme must:*

*(a) be prepared in consultation with the relevant local authorities ("air quality authorities") for the Air Quality Management Areas in which the authorised development is located and where a change in air quality in excess of 0.4µg/m<sup>3</sup> is predicted in the Environmental Statement, with annual mean concentrations also above the objective value;*

*(b) set out the location and specification for operation and data provision for any monitors to be installed in line with guidance on air quality monitoring issued by the Department for Environment, Food and Rural Affairs from time to time (but the duplication of existing monitoring will not be required where its data is available); and*

*(c) provide for the monitors to:*

*(i) be installed during the construction period of the authorised development;*

*(ii) be operated from the completion and opening of the authorised development for public use; and*

*(iii) remain in place for a period of three years or until the monitoring shows a continuous period of 12 months in which there is no exceedance of the annual national air quality objective or European Union limit values caused by the authorised development for the NO<sub>2</sub> monitored, whichever is the longer ("the monitoring period").*

*(2) During the monitoring period, the undertaker must make all data obtained from the monitors available to the air quality authorities.*

*(3) The monitoring data must be accompanied by a review undertaken by a firm of air quality experts appointed by the undertaker in consultation with the air quality authorities submitted at twelve-monthly intervals during the monitoring period. If any such review demonstrates in the opinion of the appointed firm of experts that on the balance of probabilities the authorised development has materially worsened air quality such that there are exceedances of national air quality objectives, or European Union limit values, the undertaker must:*

*(a) consult with the air quality authorities on a scheme of mitigation (including a programme for its implementation) within 6 months of the data review, taking into consideration any local air quality action plans adopted by each air quality authority as part of its local air quality management duties;*

*(b) submit the scheme of mitigation to the Secretary of State for approval within 1 month of concluding its consultation with the air quality authorities;*

*(c) implement the scheme of mitigation in accordance with the programme contained in the scheme of mitigation following approval by the Secretary of State.*

*(4) Before considering whether to approve the scheme of mitigation, the Secretary of State must consult the air quality authorities and take in to consideration any local air quality action plans adopted by an air quality authority as part of its local air quality management duties.*



## **8.6 OTHER LEGAL AGREEMENTS/RELATED DOCUMENTS**

8.6.1 There are no other legal agreements or related documents.

## **9 SUMMARY OF CONCLUSIONS AND RECOMMENDATION**

### **9.1 SUMMARY OF CONCLUSIONS**

9.1.1 In relation to s104 of PA2008 the Panel concludes in summary:

- That making the recommended Order would be in accordance with National Policy Statement for National Networks, any relevant development plans and other relevant policy, all of which have been taken into account in this report;
- That the Panel has had regard to the Local Impact Reports from SBC, RBC, LBHo and LBHill, and the Joint Local Impact Report from SBDC and BCC, in making its recommendation;
- That whilst the Secretary of State is the competent authority under the Habitats Regulations, the Panel finds that, in its view, the proposal would not adversely affect European sites, species or habitats, and the Panel has taken this into account in reaching its recommendation;
- That in regard to all other matters and representations received, the Panel found no important and relevant matters that would individually or collectively lead to a different recommendation to that below;
- That with the mitigation which is proposed through the recommended DCO, there is no adverse impact of the scheme that would outweigh its benefits;
- That there are provisions made in mitigation which would lead to some improvement in the noise environment of the M4;
- That very special circumstances exist such that development consent may be granted for the proposed development in the Green Belt; and
- That there is no reason to indicate the application should be decided other than in accordance with the relevant National Policy Statements.

9.1.2 We have considered the case for and objections to the CA and temporary possession of lands required in order to implement the proposed development. We find that the powers requested are necessary to enable the Applicant to complete the scheme. In addition, we have concluded that there is a compelling case in the public interest; that the Applicant has a clear idea of how it intends to use the land; and that funds are available for its implementation.

9.1.3 Regard has also been paid to the provisions of the Human Rights Act 1998. In particular, for the owners and residential occupiers of Amerden Caravan Park, there would be interference with their private and family life and home in contravention of Article 8; and interference in the peaceful enjoyment of their possessions in contravention of Article 1 of the First Protocol of the Human Rights Act 1998.

9.1.4 However, with the weight of national policy in favour of the project, we find that the wider public interest outweighs any interference with the human rights of the owners and residential occupiers affected by CA and temporary possession of lands. We find that the interference in their human rights would be proportionate and justified in the public interest.

9.1.5 With the changes which we put forward in our recommended DCO, we are satisfied that the proposed development meets the tests in s104 of PA2008.

## **9.2 RECOMMENDATION**

9.2.1 For all of the above reasons and in the light of the Panel's findings and conclusions on important and relevant matters set out in the report, the Panel under the Planning Act 2008 (as amended), recommends that the Secretary of State for Transport:

- Satisfies himself as to whether the advice from Natural England is sufficient to indicate that there is no likely impediment to EPS licences being issued in respect of badgers and bats.
- Satisfies himself as to the need to seek a response from the Applicant to the submission on behalf of Anita Thomas dated 3 March 2016 in relation to plot 18-02.

9.2.2 Subject to the above, the Secretary of State for Transport make the M4 Motorway (Junctions 3 to 12) (Smart Motorway) Development Consent Order 2016 in the form attached at Appendix D.

## Appendix A: The Examination

The Table below lists the main 'events' occurring during the Examination and the main procedural decisions taken by the Panel.

	<b>Event</b>	<b>Dates</b>
<b>1</b>	<b>Preliminary Meeting</b>	<b>3 September 2015</b>
<b>2</b>	Issue by Examining Authority (ExA) of: <ul style="list-style-type: none"> <li>• Rule 8 letter (including examination timetable)</li> <li>• Publication of ExA's first written questions</li> </ul>	<b>11 September 2015</b>
<b>3</b>	<b>Deadline I</b> Deadline for receipt by ExA of: <ul style="list-style-type: none"> <li>• Notification of wish to speak at a compulsory acquisition hearing</li> <li>• Notification of wish to speak at an open floor hearing</li> <li>• Notification of wish to attend accompanied site inspection between 10 and 12 November 2015</li> <li>• Comments on applicant's draft itinerary for accompanied site inspection to be held between 10 and 12 November 2015</li> <li>• Written notification by statutory parties of wish to be considered as an interested party</li> <li>• Comments by the applicant and any other interested parties on relevant representations (RRs) already submitted</li> <li>• Summaries of all RRs exceeding 1500 words</li> <li>• Any further information requested by the ExA under Rule 17 of the Infrastructure Planning (Examination Procedure) Rule</li> </ul>	<b>2 October 2015</b>

	2010 (the Exam Rules)	
<b>4</b>	<p><b>Deadline II</b></p> <p>Deadline for receipt by ExA of:</p> <ul style="list-style-type: none"> <li>• Written representations (WRs) by all interested parties</li> <li>• Summaries of all WRs exceeding 1500 words</li> <li>• Responses to ExA's first written questions</li> <li>• Local Impact Reports (LIR) from any local authorities</li> <li>• Statements of Common Ground (SoCG) requested by ExA</li> <li>• Comments on any further information requested by the ExA and received to Deadline I</li> <li>• Any further information requested by the ExA under Rule 17 of the Exam Rules</li> </ul>	<b>8 October 2015</b>
<b>5</b>	<p>Issue by ExA of:</p> <ul style="list-style-type: none"> <li>• Notification of date, time and place of hearings to be held in the week beginning 16 November 2015</li> <li>• Notification of date, time and meeting place for site inspection to be held in the company of interested parties between 10 and 12 November 2015</li> </ul>	<b>23 October 2015</b>
<b>6</b>	<p>Publication by the ExA of:</p> <ul style="list-style-type: none"> <li>• Final version of itinerary for accompanied site inspection between 10 and 12 November 2015</li> </ul>	<b>26 October 2015</b>
<b>7</b>	<p>Issue by ExA of request for further information from:</p> <ul style="list-style-type: none"> <li>• Highways England</li> </ul>	<b>27 October 2015</b>

	<ul style="list-style-type: none"> <li>Natural England</li> </ul>	
<b>8</b>	<p><b>Deadline III</b></p> <p>Deadline for receipt by the ExA of:</p> <ul style="list-style-type: none"> <li>Comments on WRs and responses to comments on RRs</li> <li>Comments on LIRs</li> <li>Comments on responses to ExA's first written questions</li> <li>Comments on SoCG</li> <li>Applicant's first revised draft Development Consent Order (DCO)</li> <li>Applicant's table setting out progress on Compulsory Acquisition negotiations</li> <li>Comments on any further information requested by the ExA and received to Deadline II</li> <li>Any further information requested by the ExA under Rule 17 of the Exam Rules</li> </ul>	<b>5 November 2015</b>
<b>9</b>	<b>First accompanied site inspection</b>	<b>10 - 12 November 2015</b>
<b>10</b>	<b>Open floor hearing- held in Reading</b>	<b>7.00pm</b> <b>16 November 2015</b>
<b>11</b>	<b>Issue specific hearing dealing with matters relating to the environment</b>	<b>10.00am</b> <b>17 November 2015</b>
<b>12</b>	<b>Issue specific hearing dealing with matters relating to the environment (continued)</b>	<b>10.00am</b> <b>18 November 2015</b>

<b>13</b>	<b>Issue specific hearing dealing with matters relating to traffic safety</b>	<b>2.00pm</b> <b>18 November 2015</b>
<b>14</b>	<b>Issue specific hearing dealing with matters relating to the draft DCO</b>	<b>10.00am</b> <b>19 November 2015</b>
<b>15</b>	<b>Compulsory acquisition hearing</b>	<b>2.00pm</b> <b>19 November 2015</b>
<b>16</b>	<b>Open floor hearing – held in Hayes/Heathrow</b>	<b>7.00pm</b> <b>19 November 2015</b>
<b>17</b>	<b>Open floor hearing – held in Maidenhead</b>	<b>10.00am</b> <b>20 November 2015</b>
<b>18</b>	<p><b>Deadline IV</b></p> <p>Deadline for receipt of:</p> <ul style="list-style-type: none"> <li>• Written summaries of oral submissions put at any hearings held between 16-20 November 2015</li> <li>• Applicant’s second revised draft DCO</li> <li>• Comments on any further information requested by the ExA and received to Deadline III</li> <li>• Any further information requested by the ExA under Rule 17 of the Exam Rules</li> </ul>	<b>26 November 2015</b>
<b>19</b>	<p>Publication of:</p> <ul style="list-style-type: none"> <li>• ExA’s second written questions</li> </ul>	<b>11 December 2015</b>
<b>21</b>	<p><b>Deadline V</b></p> <p>Deadline for receipt of:</p> <ul style="list-style-type: none"> <li>• Responses to ExA’s second written</li> </ul>	<b>8 January 2016</b>

	<p>questions</p> <ul style="list-style-type: none"> <li>• Comments on any further information requested by the ExA and received to Deadline IV</li> <li>• Any further information requested by the ExA under Rule 17 of the Exam Rules</li> </ul>	
<b>22</b>	<p>Issue by ExA of:</p> <ul style="list-style-type: none"> <li>• Notification of date, time and place of hearings to be held in the week beginning 8 February 2016</li> <li>• Notification of date, time and meeting place for site inspection to be held in the company of interested parties on 9 February 2016</li> </ul>	<b>14 January 2016</b>
<b>23</b>	<p><b>Deadline VI</b></p> <p>Deadline for receipt of:</p> <ul style="list-style-type: none"> <li>• Comments on responses to ExA's second written questions</li> <li>• Comments on any further information requested by the ExA and received to Deadline V</li> <li>• Any further information requested by the ExA under Rule 17 of the Exam Rules</li> </ul>	<b>29 January 2016</b>
<b>24</b>	<b>Second accompanied site inspection</b>	<b>9 February 2016</b>
<b>25</b>	<b>Issue specific hearing dealing with matters relating to the environment</b>	<b>10.00am</b> <b>10 February 2016</b>
<b>26</b>	<b>Issue specific hearing dealing with matters relating to the environment (continued)</b>	<b>10.00am</b> <b>11 February 2016</b>



<b>27</b>	<b>Issue specific hearing dealing with matters relating to the draft DCO</b>	<b>10.00am</b> <b>12 February 2016</b>
<b>28</b>	<b>Compulsory acquisition hearing</b>	<b>2.00pm</b> <b>12 February 2016</b>
<b>29</b>	<p><b>Deadline VII</b></p> <p>Deadline for receipt of:</p> <ul style="list-style-type: none"> <li>• Written summaries of oral submissions put at hearings held in week beginning 8 February 2016</li> <li>• Comments on any further information requested by the ExA and received to Deadline VI</li> <li>• Any further information requested by the ExA under Rule 17 of the Exam Rules</li> </ul> <p>Issue by ExA of:</p> <ul style="list-style-type: none"> <li>• ExA's draft DCO</li> </ul>	<b>17 February 2016</b>
<b>30</b>	<p>Issue by ExA of request for further information from:</p> <ul style="list-style-type: none"> <li>• Department for Transport</li> </ul>	<b>22 February 2016</b>
<b>31</b>	<p>Issue by ExA of request for further information from:</p> <ul style="list-style-type: none"> <li>• All interested parties and specifically Buckinghamshire County Council</li> </ul>	<b>24 February 2016</b>
<b>32</b>	<p><b>Deadline VIII</b></p> <p>Deadline for receipt of:</p> <ul style="list-style-type: none"> <li>• Comments on ExA's draft DCO</li> <li>• Comments on any further information requested by the ExA and received to Deadline VII</li> <li>• Any further information requested by the ExA under Rule 17 of the Exam Rules</li> </ul>	<b>29 February 2016</b>

<b>33</b>	<b>Deadline IX</b>  The ExA was under a duty to complete the examination of the application by 3 March 2016, the end of the period of 6 months beginning on the day after the Preliminary Meeting.  <b>THE EXAMINATION CLOSED ON 3 MARCH 2016</b>	<b>3 March 2016</b>
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## **Appendix B: Examination Library**

This Examination Library relates to the M4 Junctions 3 to 12 Smart Motorway application. The library lists each document that has been submitted to the examination by any party and documents that have been issued by the Planning Inspectorate. All documents listed have been published to the National Infrastructure's Planning website and a hyperlink is provided for each document. A unique reference is given to each document; these references are used in the Examining Authority's Recommendation Report. The documents within the library are categorised either by document type or by the deadline to which they are submitted.

Please note the following:

- Advice under Section 51 of the Planning Act 2008 that has been issued by the Inspectorate, is published to the National Infrastructure Website but is not included within the Examination Library as such advice is not an examination document.
- This document contains references to documents from the point the application was submitted.
- The order of documents within each sub-section is either chronological, numerical, or alphabetical and confers no priority or higher status on those that have been listed first.

**TR010019 – M4 Junctions 3 to 12 Smart Motorway****Examination Library - Index**

<b>Category</b>	<b>Reference</b>
<u>Application Documents</u>  As submitted and amended version received before the Preliminary Meeting. Any amended version received during the examination stage to be saved under the deadline received.	APP-xxx
<u>Adequacy of Consultation responses</u>	AoC-xxx
<u>Relevant Representations</u>	RR-xxx
<u>Procedural Decisions and Notifications from the Examining Authority (ExA)</u>  Includes ExA's questions, s55, and post-acceptance s51	PD-xxx
<u>Additional Submissions</u>  Includes anything accepted at the Preliminary Meeting and correspondence that is either relevant to a procedural decision or contains factual information pertaining to the examination.	AS-xxx
<u>Events</u>  Includes agendas for hearings and site inspections, audio recordings, responses to notifications, applicant's hearing notices, and responses to Rule 6 and Rule 8 letters.	EV-xxx
<b><u>Representations – by deadline</u></b>	
<u>Deadline 1:</u> <ul style="list-style-type: none"><li>Comments by the applicant and any other interested parties on relevant representations (RRs) already submitted</li></ul>	REP1-xxx

<ul style="list-style-type: none"> <li>• Summaries of all RRs exceeding 1500 words</li> <li>• Any further information requested by the ExA</li> </ul>	
<p><u>Deadline 2:</u></p> <ul style="list-style-type: none"> <li>• Written representations (WRs) by all interested parties</li> <li>• Summaries of all WRs exceeding 1500 words</li> <li>• Responses to ExA's first written questions</li> <li>• Local Impact Reports (LIR) from any local authorities</li> <li>• Statements of Common Ground (SoCG) requested by ExA</li> <li>• Comments on any further information requested by the ExA and received to Deadline I</li> </ul>	REP2-xxx
<p><u>Deadline 3:</u></p> <ul style="list-style-type: none"> <li>• Comments on WRs</li> <li>• Comments on LIRs</li> <li>• Comments on responses to ExA's first written questions</li> <li>• Updated SoCGs</li> <li>• Applicant's revised draft Development Consent Order and associated documents</li> <li>• Applicant's table setting out progress on compulsory acquisition negotiations</li> <li>• Responses to the ExA's Rule 17 letter issued 17 October 2015</li> </ul>	REP3-xxx
<p><u>Deadline 4:</u></p> <ul style="list-style-type: none"> <li>• Written summaries of oral submissions put at hearings held in w/c 16 November 2015</li> <li>• Comments on any further information requested by the ExA and received to Deadline III</li> <li>• Any further information requested by the ExA under Rule 17 of the Exam Rules</li> </ul>	REP4 -xxx

<p><u>Deadline 5:</u></p> <ul style="list-style-type: none"> <li>• Responses to ExA's second written questions</li> </ul>	<p>REP5-xxx</p>
<p><u>Deadline 6:</u></p> <ul style="list-style-type: none"> <li>• Comments on responses to ExA's second written questions</li> <li>• Comments on any further information requested by the ExA and received to Deadline V</li> <li>• Any further information requested by the ExA under Rule 17 of the Exam Rules</li> </ul>	<p>REP6-xxx</p>
<p><u>Deadline 7:</u></p> <ul style="list-style-type: none"> <li>• Written summaries of oral submissions put at hearings held in w/c 8 February 2015</li> <li>• Comments on any further information requested by the ExA and received to Deadline VI</li> <li>• Any further information requested by the ExA under Rule 17 of the Exam Rules</li> </ul> <p>Issue of:</p> <ul style="list-style-type: none"> <li>• ExA's draft DCO</li> </ul>	<p>REP7-xxx</p>
<p><u>Deadline 8</u></p> <ul style="list-style-type: none"> <li>• Comments on ExA's draft DCO</li> <li>• Comments on any further information requested by the ExA and received to Deadline VII</li> <li>• Any further information requested by the ExA under Rule 17 of the Exam Rules</li> <li>• Responses to request for further information dated 24 February 2016</li> </ul>	<p>REP8 -xxx</p>
<p><u>Deadline 9</u></p>	<p>REP9 - xxx</p>

<ul style="list-style-type: none"> <li>• Responses to request for further information dated 22 February 2016</li> </ul> <p><i>The ExA is under duty to complete the examination of the application by the end of the period of 6 months</i></p>	
<p><u>Other Documents</u></p> <p>Includes s127/131/138 information, s56, s58 and s59 certificates, and transboundary documents</p>	<p>OD-xxx</p>

**TR010019 – M4 Junctions 3 to 12 Smart Motorway  
Examination Library**

**APPLICATION DOCUMENTS**

APP-001	<u>1-0-Application-Information Cover-and-contents</u>
APP-002	<u>1-1-Introduction-to-the-application</u>
APP-003	<u>1-2-Covering-letter</u>
APP-004	<u>1-3-Application-form</u>
APP-005	<u>1-4-Copies-of-newspaper-notices</u>
APP-006	<u>2-0-Plans-drawings-and-sections Cover-and-contents</u>
APP-007	<u>2-1-LocationPlan</u>
APP-008	<u>2-2-LandPlans Cover-and-KeyPlan</u>
APP-009	<u>2-2-LandPlans Sht01-08</u>
APP-010	<u>2-2-LandPlans Sht09-16</u>
APP-011	<u>2-2-LandPlans Sht17-24</u>
APP-012	<u>2-2-LandPlans Sht25-31</u>
APP-013	<u>2-3-WorkPlans Cover-and-KeyPlan</u>
APP-014	<u>2-3-WorkPlans Sht01-08</u>
APP-015	<u>2-3-WorkPlans Sht09-16</u>
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APP-018	<u>2-4-RoWA-plans</u>
APP-019	<u>2-5-EngineeringSections Sht01-07</u>
APP-020	<u>2-6-SideRoads Cover-and-KeyPlan</u>
APP-021	<u>2-6-SideRoads Sht01-07</u>
APP-022	<u>2-6-SideRoads Sht08-13</u>
APP-023	<u>2-7-EarthworkDetails</u>
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APP-026	<u>3-1-Draft-DCO</u>
APP-027	<u>3-2-Explanatory-memorandum-to-draft-DCO</u>
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APP-030	<u>4-1-Statement-of-reasons</u>
APP-031	<u>4-1-Statement-of-reasons Appendix-A</u>
APP-032	<u>4-2-Funding-Statement</u>
APP-033	<u>4-2-Funding-Statement Appendix-A</u>
APP-034	<u>4-2-Funding-Statement Appendix-B</u>
APP-035	<u>4-2-Funding-Statement Appendix-C</u>
APP-036	<u>4-2-Funding-Statement Appendix-D</u>
APP-037	<u>4-2-Funding-Statement Appendix-E</u>
APP-038	<u>4-3-Book-of-reference</u>
APP-039	<u>5-0-Reports-and-Statements Cover-and-contents-1of3</u>
APP-040	<u>5-0-Reports-and-Statements Cover-and-contents-2of3</u>
APP-041	<u>5-0-Reports-and-Statements Cover-and-contents-3of3</u>
APP-042	<u>5-1-Consultation-Report</u>
APP-043	<u>5-2-Consultation-Report Appendix-01</u>
APP-044	<u>5-2-Consultation-Report Appendix-02</u>
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APP-047	<u>5-2-Consultation-Report Appendix-05</u>
APP-048	<u>5-2-Consultation-Report Appendix-06</u>
APP-049	<u>5-2-Consultation-Report Appendix-07</u>

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APP-079	<u>5-3-FRA Annex-B-HADDMS-Register</u>
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APP-083	<u>5-5-Details-of-other-consents-and-licences</u>
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APP-085	<u>5-7-Natural-Features-Report</u>
APP-086	<u>7-0-Other-Docs Cover-and-contents-1of3</u>
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<b>Adequacy of Consultation Representations</b>	
AoC-001	<u>Basingstoke and Deane Borough Council</u>
AoC-002	<u>Bracknell Forest Council</u>
AoC-003	<u>Ealing Council</u>
AoC-004	<u>Hampshire County Council</u>
AoC-005	<u>London Borough of Hillingdon</u>
AoC-006	<u>London Borough of Hounslow</u>
AoC-007	<u>London Borough of Richmond Upon Thames</u>
AoC-008	<u>Reading Council</u>
AoC-009	<u>Royal Borough of Windsor and Maidenhead</u>
AoC-010	<u>Slough Borough Council</u>
AoC-011	<u>Surrey Heath Borough Council</u>
AoC-012	<u>Vale of White Horse and South Oxfordshire District Councils</u>

AoC-013	<u>West Berkshire Council</u>
AoC-014	<u>Wiltshire Council</u>
AoC-015	<u>Wokingham Council</u>
<b>Relevant Representations</b>	
RR-001	<u>David Green</u>
RR-002	<u>Dr Norman Jorgensen</u>
RR-003	<u>Stephanie Robinson</u>
RR-004	<u>Samantha Breakwell</u>
RR-005	<u>Newbury Friends of the Earth</u>
RR-006	<u>Tom Killick</u>
RR-007	<u>David Allen</u>
RR-008	<u>Elaine Marie Ewens</u>
RR-009	<u>Mary Whibley</u>
RR-010	<u>Michael Sackin</u>
RR-011	<u>Giles Gooding</u>
RR-012	<u>Hart District Council</u>
RR-013	NOT IN USE
RR-014	<u>Grace Hall</u>
RR-015	<u>John Repsch</u>
RR-016	<u>L Wadey</u>
RR-017	<u>Edward Whitworth</u>
RR-018	<u>Slough MotoX Parc (Upton court park)</u>
RR-019	<u>Nick Porocter</u>
RR-020	<u>Scott White</u>
RR-021	<u>Mr B Kinane</u>

RR-022	<u>André A Browne</u>
RR-023	<u>Claire Jones</u>
RR-024	<u>Slough Borough Council</u>
RR-025	<u>The Oxford Diocesan Board of Finance</u>
RR-026	<u>Antony Dalton</u>
RR-027	<u>JSM Construction/Zayo Group</u>
RR-028	<u>Rupert Devereux</u>
RR-029	<u>Renata Figueira</u>
RR-030	<u>David Baker</u>
RR-031	<u>Susan Francis</u>
RR-032	<u>Andrew K Monks</u>
RR-033	<u>Noel Jennion</u>
RR-034	<u>Dorney Village Hall Management Committee</u>
RR-035	<u>Mark Matthews</u>
RR-036	<u>Chris Todd</u>
RR-037	<u>Irene Baumhardt</u>
RR-038	<u>Manpartap Singh</u>
RR-039	<u>Pete Abel</u>
RR-040	<u>Thames Valley Berkshire Local Enterprise Partnership</u>
RR-041	<u>Celia Roberts</u>
RR-042	<u>A Nicolson</u>
RR-043	<u>Rupert Emerson</u>
RR-044	<u>Cranford Park Friends</u>
RR-045	<u>BPA Ltd</u>
RR-046	<u>Dorney Parish Council</u>



RR-047	<a href="#"><u>Tim Holton</u></a>
RR-048	<a href="#"><u>John Prior</u></a>
RR-049	<a href="#"><u>Skryba Limited</u></a>
RR-050	<a href="#"><u>Jessica Peace</u></a>
RR-051	<a href="#"><u>Alison Davis</u></a>
RR-052	<a href="#"><u>Deeba Khawar</u></a>
RR-053	<a href="#"><u>Mike Tyzack</u></a>
RR-054	<a href="#"><u>Suzie Ferguson</u></a>
RR-055	<a href="#"><u>Peter Burt</u></a>
RR-056	<a href="#"><u>Arborfield &amp; Newland Parish Council</u></a>
RR-057	<a href="#"><u>Adam Semenenko</u></a>
RR-058	<a href="#"><u>Susan Murray</u></a>
RR-059	<a href="#"><u>John West</u></a>
RR-060	<a href="#"><u>South Bucks District Council</u></a>
RR-061	<a href="#"><u>Chris Crean</u></a>
RR-062	<a href="#"><u>Clive Hopper</u></a>
RR-063	<a href="#"><u>David Callow</u></a>
RR-064	<a href="#"><u>Jennifer Allinson</u></a>
RR-065	<a href="#"><u>Iain Coram</u></a>
RR-066	<a href="#"><u>Derek Bodey</u></a>
RR-067	<a href="#"><u>Dr. Jeremy Bartlett</u></a>
RR-068	<a href="#"><u>Prof. Chris Evans</u></a>
RR-069	<a href="#"><u>Paul Anthony Newman (The Reverend)</u></a>
RR-070	<a href="#"><u>Tony James</u></a>
RR-071	<a href="#"><u>Andrew Sherwood</u></a>

RR-072	<a href="#"><u>Corinna Smart</u></a>
RR-073	<a href="#"><u>Edwina Blakewill</u></a>
RR-074	<a href="#"><u>Andrew Cole</u></a>
RR-075	<a href="#"><u>Max Jason</u></a>
RR-076	<a href="#"><u>Kevin Fallon</u></a>
RR-077	<a href="#"><u>Dr Michael Fulton</u></a>
RR-078	<a href="#"><u>Pam Huntley Blecken</u></a>
RR-079	<a href="#"><u>Michael Brice</u></a>
RR-080	<a href="#"><u>Robert Palgrave</u></a>
RR-081	<a href="#"><u>Sam Durie</u></a>
RR-082	<a href="#"><u>Sandra Ludgate</u></a>
RR-083	<a href="#"><u>David Greeno</u></a>
RR-084	<a href="#"><u>Lesley Rose Rieseberg</u></a>
RR-085	<a href="#"><u>J Langrish</u></a>
RR-086	<a href="#"><u>Heather Marshall</u></a>
RR-087	<a href="#"><u>Jane Chaplin</u></a>
RR-088	<a href="#"><u>Robyn Caldecott</u></a>
RR-089	<a href="#"><u>Michael Bull</u></a>
RR-090	<a href="#"><u>Stephen Mandel</u></a>
RR-091	<a href="#"><u>Stephen Tames</u></a>
RR-092	<a href="#"><u>Barbara Lawrence</u></a>
RR-093	<a href="#"><u>Jenny Stables</u></a>
RR-094	<a href="#"><u>Christine Honeywill</u></a>
RR-095	<a href="#"><u>Adrian Haffegge</u></a>
RR-096	<a href="#"><u>Steven Edwards</u></a>

RR-097	<a href="#">Malcolm Hunt</a>
RR-098	<a href="#">Carolyn Forsyth</a>
RR-099	<a href="#">Susan Waller</a>
RR-100	<a href="#">Mary Morris</a>
RR-101	<a href="#">Nikki Packham</a>
RR-102	<a href="#">John Orbell</a>
RR-103	<a href="#">Richmond and Twickenham Friends of the Earth</a>
RR-104	<a href="#">Kay Snowdon</a>
RR-105	<a href="#">William David Charles Holyday</a>
RR-106	<a href="#">Elizabeth Jenkins</a>
RR-107	<a href="#">Leon Spence</a>
RR-108	<a href="#">L Warren</a>
RR-109	<a href="#">Alison Johnston</a>
RR-110	<a href="#">Andrew Martin</a>
RR-111	<a href="#">Glenn Parker</a>
RR-112	<a href="#">Laura Goody</a>
RR-113	<a href="#">Julian Bogajski</a>
RR-114	<a href="#">D. Brown</a>
RR-115	<a href="#">Ben Niblett</a>
RR-116	<a href="#">Hannah Wakley</a>
RR-117	<a href="#">Lee Clements</a>
RR-118	<a href="#">Parvesh Kumar Roda</a>
RR-119	<a href="#">Julian Holt</a>
RR-120	<a href="#">Robert Palgrave</a>
RR-121	<a href="#">Angus McCallum</a>

RR-122	<a href="#"><u>Rebecca Minter</u></a>
RR-123	<a href="#"><u>London Borough of Hillingdon</u></a>
RR-124	<a href="#"><u>Simon Palmer</u></a>
RR-125	<a href="#"><u>Yvonne Singleton</u></a>
RR-126	<a href="#"><u>Anne Giddens</u></a>
RR-127	<a href="#"><u>Alban Thurston</u></a>
RR-128	<a href="#"><u>Giles Gooding</u></a>
RR-129	<a href="#"><u>Mark Tonks</u></a>
RR-130	<a href="#"><u>Teresa McGuinness</u></a>
RR-131	<a href="#"><u>Mike Birkin</u></a>
RR-132	<a href="#"><u>Simon Barber</u></a>
RR-133	<a href="#"><u>Reading and Wokingham Green Party</u></a>
RR-134	<a href="#"><u>Mike Croker</u></a>
RR-135	<a href="#"><u>Mary Ntamark</u></a>
RR-136	<a href="#"><u>Lee Jones</u></a>
RR-137	<a href="#"><u>David Bailey</u></a>
RR-138	<a href="#"><u>Cllr Andy D'Agorne</u></a>
RR-139	<a href="#"><u>Dr A J Pretlove</u></a>
RR-140	<a href="#"><u>Dermot Yuille</u></a>
RR-141	<a href="#"><u>Morag Carmichael</u></a>
RR-142	<a href="#"><u>David Crawford</u></a>
RR-143	<a href="#"><u>Jasper Selwyn</u></a>
RR-144	<a href="#"><u>Tim Davis</u></a>
RR-145	<a href="#"><u>Felix Brunner</u></a>
RR-146	<a href="#"><u>John Laker</u></a>

RR-147	<a href="#"><u>London Fire and Emergency Planning Authority</u></a>
RR-148	<a href="#"><u>Giselle Hulme</u></a>
RR-149	<a href="#"><u>South East Water</u></a>
RR-150	<a href="#"><u>Peter C Stone</u></a>
RR-151	<a href="#"><u>Adrian Windisch</u></a>
RR-152	<a href="#"><u>Dorset Cyclists Network</u></a>
RR-153	<a href="#"><u>Gary Cowan</u></a>
RR-154	<a href="#"><u>Frank McElroy</u></a>
RR-155	<a href="#"><u>Linda Ellard</u></a>
RR-156	<a href="#"><u>Darrel Archbold</u></a>
RR-157	<a href="#"><u>John Hill</u></a>
RR-158	<a href="#"><u>Diane Harker</u></a>
RR-159	<a href="#"><u>Christine McMillan</u></a>
RR-160	<a href="#"><u>Susan Walsh</u></a>
RR-161	<a href="#"><u>Peter Geach</u></a>
RR-162	<a href="#"><u>E. Tomalin</u></a>
RR-163	<a href="#"><u>Louise Green</u></a>
RR-164	<a href="#"><u>Andrea Needham</u></a>
RR-165	<a href="#"><u>Andrew Durling</u></a>
RR-166	<a href="#"><u>H Singh</u></a>
RR-167	<a href="#"><u>Jonathan Say</u></a>
RR-168	<a href="#"><u>Noam Bleicher</u></a>
RR-169	<a href="#"><u>Simon Zev Kendler</u></a>
RR-170	<a href="#"><u>Martin Key</u></a>
RR-171	<a href="#"><u>Councillor Philip Houldsworth</u></a>

RR-172	<a href="#">John McDonnell MP</a>
RR-173	<a href="#">Karen Apperley</a>
RR-174	<a href="#">Kate Nickels</a>
RR-175	<a href="#">Wokingham Liberal Democrats</a>
RR-176	<a href="#">Sukhraj Gill</a>
RR-177	<a href="#">Ralph Brown</a>
RR-178	<a href="#">Jane Richardson</a>
RR-179	<a href="#">Chris Shaw</a>
RR-180	<a href="#">Sheila Taylor</a>
RR-181	<a href="#">Steven Goodman</a>
RR-182	<a href="#">Barbara Wharton</a>
RR-183	<a href="#">Karl Horton</a>
RR-184	<a href="#">Rowan Adams</a>
RR-185	<a href="#">Stanley Knill</a>
RR-186	<a href="#">R Abbott</a>
RR-187	<a href="#">Anthony Maunder</a>
RR-188	<a href="#">Michael Bunn</a>
RR-189	<a href="#">Taplow Parish Council</a>
RR-190	<a href="#">National Foundation for Educational Research</a>
RR-191	<a href="#">Christine Eborall</a>
RR-192	<a href="#">Peter Jacques</a>
RR-193	<a href="#">Rachel Cook</a>
RR-194	<a href="#">Rebecca Emerton</a>
RR-195	<a href="#">London Borough of Hammersmith and Fulham</a>
RR-196	<a href="#">Kathryn Tytler</a>

RR-197	<u>Thomas Haiden</u>
RR-198	<u>RAC</u>
RR-199	<u>BP Oil UK Limited</u>
RR-200	<u>Edward Keating</u>
RR-201	<u>Colnbrook Community Association</u>
RR-202	<u>Peter Corley</u>
RR-203	<u>R Hogg</u>
RR-204	<u>Royal Mail Group Limited</u>
RR-205	<u>Sarah Lunnon</u>
RR-206	<u>Asma Chaudhry</u>
RR-207	<u>Barbara Jerome</u>
RR-208	<u>Affinity Water Limited</u>
RR-209	<u>Mid and West Berkshire Local Access Forum</u>
RR-210	<u>Isle of Wight Friends of the Earth</u>
RR-211	<u>Dr Liaf Maxey</u>
RR-212	<u>David Hancock</u>
RR-213	<u>Christopher Amor</u>
RR-214	<u>Zav Bowden</u>
RR-215	<u>Alasdair Cameron</u>
RR-216	<u>Moto Hospitality Limited</u>
RR-217	<u>Joseph Nicholas</u>
RR-218	<u>Tony Bosworth</u>
RR-219	<u>Rosalind Readhead</u>
RR-220	<u>Dunelm (Soft Furnishings) Ltd and Dunelm Estates Ltd</u>
RR-221	<u>Tom Franklin</u>

RR-222	<a href="#">Roger Geffen</a>
RR-223	<a href="#">Justin Nailard</a>
RR-224	<a href="#">Rajdeep Kaur</a>
RR-225	<a href="#">Chris Gillham</a>
RR-226	<a href="#">Mark Drukker</a>
RR-227	<a href="#">John MacKenzie</a>
RR-228	<a href="#">Amanda Leon</a>
RR-229	<a href="#">West Berkshire Green Party</a>
RR-230	<a href="#">Bricycles - the Brighton and Hove Cycling Campaign Group</a>
RR-231	<a href="#">Chris Jarvis</a>
RR-232	<a href="#">Goodman Colnbrook (Jersey) Limited</a>
RR-233	<a href="#">Mark Benfold</a>
RR-234	<a href="#">The Animal Sanctuary UK</a>
RR-235	<a href="#">Louisa Maxwell-Watters</a>
RR-236	<a href="#">John Parkman</a>
RR-237	<a href="#">Mohinder Jaswal</a>
RR-238	<a href="#">Stockley Park Consortium Limited</a>
RR-239	<a href="#">RBS</a>
RR-240	<a href="#">Sheila Maunder</a>
RR-241	<a href="#">Buckinghamshire County Council</a>
RR-242	<a href="#">Richard Bradbury</a>
RR-243	<a href="#">Campaign for Better Transport</a>
RR-244	<a href="#">Friends of the Earth, England Wales and Northern Ireland</a>
RR-245	<a href="#">Buckinghamshire County Council</a>
RR-246	<a href="#">Jenny Bates</a>



RR-247	<u>Cllr John Morse</u>
RR-248	<u>Christine Viola</u>
RR-249	<u>Environment Agency</u>
RR-250	<u>Guildford, Woking and Waverley Friends of the Earth</u>
RR-251	<u>Richard Cocks</u>
RR-252	<u>Roger Bastin</u>
RR-253	<u>Margaret Cocks</u>
RR-254	<u>Jenny Nicholson</u>
RR-255	<u>Roy Turner</u>
RR-256	<u>Christopher Burden</u>
RR-257	<u>Zoë Qureshi</u>
RR-258	<u>Sarah Clayton</u>
RR-259	<u>Helen Hansen-Hjul</u>
RR-260	<u>Stephanie Lodge</u>
RR-261	<u>Steve Brassington</u>
RR-262	<u>Jackie Wand-Tetley</u>
RR-263	<u>Sarah Docherty</u>
RR-264	<u>Mr Jones</u>
RR-265	<u>Tim Henderson</u>
RR-266	<u>Giles Chester</u>
RR-267	<u>M T Adams</u>
RR-268	<u>Belinda Raven</u>
RR-269	<u>Ted Plenty</u>
RR-270	<u>Sheila Cooksey</u>
RR-271	<u>Jackie Oversby</u>

RR-272	<a href="#"><u>Dan Williams</u></a>
RR-273	<a href="#"><u>Alison Crampin</u></a>
RR-274	<a href="#"><u>West Berkshire Council</u></a>
RR-275	<a href="#"><u>Stephen Clark</u></a>
RR-276	<a href="#"><u>Natural England</u></a>
RR-277	<a href="#"><u>CEMEX UK Operations Ltd</u></a>
RR-278	<a href="#"><u>Sarah Daly</u></a>
RR-279	<a href="#"><u>Iris Software Group Ltd</u></a>
RR-280	<a href="#"><u>Historic England</u></a>
RR-281	<a href="#"><u>Gillian Smith</u></a>
RR-282	<a href="#"><u>South Bucks District Council</u></a>
RR-283	<a href="#"><u>Persimmon Homes Ltd and Bovis Homes Ltd</u></a>
RR-284	<a href="#"><u>Diane Blagg</u></a>
RR-285	<a href="#"><u>Denis Walker</u></a>
RR-286	<a href="#"><u>Samantha McCann</u></a>
RR-287	<a href="#"><u>Nicola Packham</u></a>
RR-288	<a href="#"><u>Peggy Fincham</u></a>
RR-289	<a href="#"><u>Wendy Nicol</u></a>
RR-290	<a href="#"><u>Nick Anderson MBCS MISTC</u></a>
RR-291	<a href="#"><u>Royal Borough of Windsor and Maidenhead Local Access Forum</u></a>
RR-292	<a href="#"><u>Alan Mather</u></a>
RR-293	<a href="#"><u>Hazel Kirk</u></a>
RR-294	<a href="#"><u>Anita Thomas</u></a>
RR-295	<a href="#"><u>Reading Friends of the Earth</u></a>
RR-296	<a href="#"><u>Wokingham Borough Council</u></a>

RR-297	<a href="#"><u>Railway Pension Nominees Limited</u></a>
RR-298	<a href="#"><u>Hayes Community Development Forum</u></a>
RR-299	<a href="#"><u>Matthew Ball</u></a>
RR-300	<a href="#"><u>Bloor Homes Southern and Anita Thomas</u></a>
RR-301	<a href="#"><u>University of Reading</u></a>
RR-302	<a href="#"><u>Rob Beere</u></a>
RR-303	<a href="#"><u>National Grid</u></a>
RR-304	<a href="#"><u>Colnbrook with Poyle Parish Council</u></a>
RR-305	<a href="#"><u>Datchet Parish Council</u></a>
RR-306	<a href="#"><u>Heathrow Villages Conservation Areas Advisory Panel</u></a>
RR-307	<a href="#"><u>A1 Grab Hire Limited</u></a>
RR-308	<a href="#"><u>Dr John Oversby</u></a>
RR-309	<a href="#"><u>Jon Mullett</u></a>
RR-310	<a href="#"><u>Megan Arnold</u></a>
RR-311	<a href="#"><u>Anne Booth</u></a>
RR-312	<a href="#"><u>Lance Pierson</u></a>
RR-313	<a href="#"><u>John Watters</u></a>
RR-314	<a href="#"><u>Lise Austen</u></a>
RR-315	<a href="#"><u>Neill Talbot</u></a>
RR-316	<a href="#"><u>Paul Maxey</u></a>
RR-317	<a href="#"><u>Jennifer Collins</u></a>
RR-318	<a href="#"><u>Peter Edward</u></a>
RR-319	<a href="#"><u>Tero Sansom</u></a>
RR-320	<a href="#"><u>Miriam Stenning</u></a>
RR-321	<a href="#"><u>David Newland</u></a>

RR-322	<a href="#">G S Sandhu</a>
RR-323	<a href="#">Beverly Hakesley</a>
RR-324	<a href="#">Ulrike von Strombeck</a>
RR-325	<a href="#">Anthony Massingham</a>
RR-326	<a href="#">Jeannine Cooper</a>
RR-327	<a href="#">Keith Ronald James</a>
RR-328	<a href="#">J A Harris</a>
<b>Procedural decisions and notifications issued by ExA</b>	
PD-001	<a href="#">Notification of decision to accept application</a>
PD-002	<a href="#">Section 51 advice following decision to accept</a>
PD-003	<a href="#">Section 55 Acceptance of Applications Checklist</a>
PD-004	<a href="#">Rule 6 letter</a>
PD-005	<a href="#">Examining Authority's first written questions</a>
PD-006	<a href="#">Rule 8 letter</a>
PD-007	<a href="#">Notification in respect of November 2015 examination events</a>
PD-008	<a href="#">Request for further information dated 27 October 2015</a>
PD-009	<a href="#">Rule 4 (2) Appointment of ExA</a>
PD-010	<a href="#">Rule 4 (2) Appointment Decision</a>
PD-011	<a href="#">Examining Authority's second written questions</a>
PD-012	<a href="#">Request for further information dated 22 February 2016</a>
PD-013	<a href="#">Notification of completion of examination (s99)</a>
PD-014	<a href="#">Examining Authority's draft Development Consent Order - Issued on 17 February 2016</a>
PD-015	<a href="#">Notification in respect of February 2016 examination events</a>
PD-016	<a href="#">Request for further information dated 24 February 2016</a>

<b>Additional Submissions</b>	
AS-001	<a href="#">Greater London Authority</a>
AS-002	<a href="#">Network Rail Infrastructure Ltd</a>
AS-003	<a href="#">Chiltern District Council</a>
AS-004	<a href="#">Cranford Park Friends</a>
AS-005	<a href="#">Wokingham Borough Council</a>
AS-006	<a href="#">Hayes Community Development Forum</a>
AS-007	<a href="#">Mike Birkin</a>
AS-008	<a href="#">London Borough of Hillingdon</a>
AS-009	<a href="#">Network Rail Infrastructure Ltd</a>
AS-010	<a href="#">Campaign for Better Transport</a>
AS-011	<a href="#">London Borough of Hillingdon</a>
AS-012	<a href="#">Highways England – Glossary of Terms</a>
AS-013	<a href="#">Enrico Petrucco</a>
AS-014	<a href="#">Patricia L Springbett on behalf of Burnham Abbey Conservation Group</a>
AS-015	<a href="#">Fiona Mactaggart MP</a>
AS-016	<a href="#">Highways England – Signed Statement of Common Ground with Reading Borough Council</a>
AS-017	<a href="#">Highways England – Signed Statement of Common Ground with Earley Town Council</a>
AS-018	<a href="#">Highways England – Signed Statement of Common Ground with Transport for London and Greater London Authority</a>
AS-019	<a href="#">Dave Green</a>
AS-020	<a href="#">Blue Kinane</a>
AS-021	<a href="#">Bruce Fowler on behalf of Thames Water</a>
AS-022	<a href="#">Earley Town Council</a>
AS-023	<a href="#">Nick and Catrin Cameron</a>

AS-024	<u>Carrie Darby</u>
AS-025	<u>Graham Wigglesworth on behalf of Goodman Colnbrook (Jersey) Limited</u>
AS-026	<u>Highways England – Signed Statement of Common Ground with Royal Borough of Windsor and Maidenhead</u>
AS-027	<u>Arborfield and Newland Parish Council</u>
AS-028	<u>Dr Norman Jorgensen</u>
AS-029	<u>Gary Cowan</u>
AS-030	<u>University of Reading</u>
AS-031	<u>Slough MotoX Parc</u>
AS-032	<u>Mr Anthony Massingham</u>
AS-033	<u>London Borough of Hillingdon</u>
AS-034	<u>Dave Green</u>
AS-035	<u>Mr J A Harris</u>
AS-036	<u>John Watters</u>
AS-037	<u>Highways England - Section 127 and 138 Application Index</u>
AS-038	<u>Highways England – Section 127 and 138 Application Part 1 of 4</u>
AS-039	<u>Highways England - Section 127 and 138 Application Part 2 of 4</u>
AS-040	<u>Highways England - Section 127 and 138 Application Part 3 of 4</u>
AS-041	<u>Highways England - Section 127 and 138 Application Part 4 of 4</u>
AS-042	<u>Highways England - Draft DCO requested from the applicant at the issue specific hearing on 12 February 2016</u>
AS-043	<u>Heathrow Airport Limited – Copy of Letter sent to the Secretary of State for Transport</u>
AS-044	<u>Highways England - Referral letter to HM Treasury</u>
AS-045	<u>Highways England - File containing Appendices to Referral letter to HM Treasury</u>
AS-046	<u>Mr Anthony Massingham</u>

AS-047	South East Water
AS-048	<u>Mr JA Harris</u>
AS-049	<u>Wokingham Borough Council -Covering letter and additional Councillor comments in respect of the Signed Statement of Common Ground between Wokingham Borough Council and Highways England. The Examining Authority exercised its discretion and chose to accept this document to be read in conjunction with the examination on 10 December 2015</u>
AS-050	<u>Wokingham Borough Council - Signed Statement of Common Ground between Wokingham Borough Council and Highways England. The Examining Authority exercised its discretion and chose to accept this document to be read in conjunction with the examination on 10 December 2015</u>
<b>EVENTS</b>	
<b>Preliminary Meeting – 3 September 2015</b>	
EV-001	<u>Preliminary Meeting audio recording</u>
EV-002	<u>Preliminary Meeting note</u>
<b>Unaccompanied Site Inspection – 26 August 2015</b>	
EV-003	<u>Note of unaccompanied site inspection</u>
<b>Accompanied Site Inspection – 10, 11 and 12 November 2015</b>	
EV-004	<u>Applicant’s draft itinerary for the accompanied site inspection</u>
EV-005	<u>Itinerary for accompanied site inspection - Day 1</u>
EV-006	<u>Itinerary for accompanied site inspection - Day 2</u>
EV-007	<u>Itinerary for accompanied site inspection - Day 3</u>
EV-008	NOT IN USE
<b>Hearings - w/c 16 November 2015</b>	
EV-009	<u>Agenda for the issue specific hearing dealing with matters relating to the environment commencing at 10.00am on 17 November 2015 and closing on 18 November 2015</u>
EV-010	<u>Agenda for the issue specific hearing dealing with matters relating to road safety being held at 2.00pm on 18 November 2015</u>

EV-011	<u>Agenda for the issue specific hearing dealing with matters relating to the draft Development Consent Order being held at 10.00am on 19 November 2015</u>
EV-012	<u>Agenda for the compulsory acquisition hearing being held at 2.00pm on 19 November 2015</u>
EV-013	<u>Audio Recording - Audio recording of issue specific hearing dealing with matters relating to road safety</u>
EV-014	<u>Audio Recording Part 1 - Audio recording of issue specific hearing dealing with matters relating to the draft Development Consent Order</u>
EV-015	<u>Audio Recording Part 2 - Audio recording of issue specific hearing dealing with matters relating to the draft Development Consent Order</u>
EV-016	<u>Audio Recording Part 3 - Audio recording of issue specific hearing dealing with matters relating to the environment</u>
EV-017	<u>Audio Recording Part 4 - Audio recording of issue specific hearing dealing with matters relating to the environment</u>
EV-018	<u>Audio Recording Part 5 - Audio recording of issue specific hearing dealing with matters relating to the environment</u>
EV-019	<u>Audio Recording Part 6 - Audio recording of issue specific hearing dealing with matters relating to the environment</u>
EV-020	<u>Audio Recording Part 7 - Audio recording of issue specific hearing dealing with matters relating to the environment</u>
EV-021	<u>Audio Recording Part 1 - Audio recording of issue specific hearing dealing with matters relating to the environment</u>
EV-022	<u>Audio Recording Part 2 - Audio recording of issue specific hearing dealing with matters relating to the environment</u>
EV-023	<u>Audio Recording Part 1 - Audio recording of compulsory acquisition hearing</u>
EV-024	<u>Audio Recording Part 2 - Audio recording of compulsory acquisition hearing</u>
EV-025	<u>Audio Recording - Audio recording of open floor hearing held in Reading on 16 November 2015</u>
EV-026	<u>Audio Recording - Audio recording of open floor hearing held in Heathrow on 19 November 2015</u>
EV-027	<u>Audio Recording - Audio recording of open floor hearing held in</u>



	Maidenhead on 20 November 2015
<b>Accompanied Site Inspection – 9 February 2016</b>	
EV-027.1	<u>Itinerary for second accompanied site inspection</u>
<b>Hearings - w/c 8 February 2016</b>	
EV-028	<u>Agenda for the issue specific hearing dealing with matters relating to the environment commencing at 10.00am on 10 February 2016 and closing on 11 February 2016</u>
EV-029	<u>Agenda for the issue specific hearing dealing with matters relating to the draft Development Consent Order being held at 10.00am on 12 February 2016</u>
EV-030	<u>Agenda for the compulsory acquisition hearing being held at 12 noon on 12 February 2016</u>
EV-031	<u>Audio Recording Part 1 of 4 - Audio recording of the issue specific hearing dealing with matters relating to the environment (Day 1)</u>
EV-032	<u>Audio Recording Part 2 of 4 - Audio recording of the issue specific hearing dealing with matters relating to the environment (Day 1)</u>
EV-033	<u>Audio Recording Part 3 of 4 - Audio recording of the issue specific hearing dealing with matters relating to the environment (Day 1)</u>
EV-034	<u>Audio Recording Part 4 of 4 - Audio recording of the issue specific hearing dealing with matters relating to the environment (Day 1)</u>
EV-035	<u>Audio Recording Part 1 of 4 - Audio recording of the issue specific hearing dealing with matters relating to the environment (Day 2)</u>
EV-036	<u>Audio Recording Part 2 of 4 - Audio recording of the issue specific hearing dealing with matters relating to the environment (Day 2)</u>
EV-037	<u>Audio Recording Part 3 of 4 - Audio recording of the issue specific hearing dealing with matters relating to the environment (Day 2)</u>
EV-038	<u>Audio Recording Part 4 of 4 - Audio recording of the issue specific hearing dealing with matters relating to the environment (Day 2)</u>
EV-039	<u>Compulsory acquisition hearing 12 February 2016 - Audio recording of the compulsory acquisition hearing</u>
EV-040	<u>Audio Recording - Audio recording of issue specific hearing dealing with matters relating to the draft Development Consent Order</u>

## REPRESENTATIONS

### Deadline I – 2 October 2015

- Comments by the applicant any other interested parties on relevant representations submitted
- Summaries of all relevant representations exceeding 1500 words
- Any further information requested by the ExA

### Applicant Submissions

REP1-001	<a href="#">Highways England - Cover letter and submission index</a>
REP1-002	<a href="#">Highways England - Response to ExA's request for further information</a>

### Comments on relevant representations

REP1-003.1	<a href="#">Highways England - Response to relevant representations: Document 1 - Introductory note to the response to relevant representations</a>
REP1-003.2	<a href="#">Highways England - Response to relevant representations: Document 1 - Appendix 1 - Example of campaign information produced by Campaign for Better Transport</a>
REP1-003.3	<a href="#">Highways England - Response to relevant representations: Document 1 - Appendix 2 - Example of campaign information produced by Friends of the Earth</a>
REP1-003.4	<a href="#">Highways England - Response to relevant representations: Document 2 - Response to relevant representations by Campaign for Better Transport and Friends of the Earth</a>
REP1-003.5	<a href="#">Highways England - Responses to relevant representations: Document 3 - Response to relevant representations</a>
REP1-003.6	<a href="#">Highways England - Response to relevant representations: Document 3 - Appendix 1 - Traffic Forecasting Report</a>
REP1-003.7	<a href="#">Highways England - Response to relevant representations: Document 3 - Appendix 2 - Non-Motorised User Survey Report</a>
REP1-003.8	<a href="#">Highways England - Response to relevant representations: Document 3 - Appendix 3 - Additional Noise Modelling for London Borough of Hillingdon and South Bucks District Council</a>
REP1-003.9	<a href="#">Highways England - Response to relevant representations: Document 3 - Appendix 4 - Photomontages from within Cranford Park</a>
REP1-003.10	<a href="#">Highways England - Response to relevant representations: Document 3 - Appendix 5 - Plans of Forecast Traffic Flow in the London Borough of</a>

	<a href="#">Hammersmith and Fulham</a>
REP1-003.11	<a href="#">Highways England - Response to relevant representations: Document 3 - Appendix 6 - Letters to BP Oil dated 8 June 2015 &amp; 29 July 2015</a>
REP1-003.12	<a href="#">Highways England - Response to relevant representations: Document 3 - Appendix 7 - Local Model Validation Report</a>
REP1-003.13	<a href="#">Highways England - Response to relevant representations: Document 3 - Appendix 8 - Plans of Forecast Traffic Flow in Wokingham Borough (2022)</a>
REP1-003.14	<a href="#">Highways England - Response to relevant representations: Document 4 - Response to Greater London Authority and Network Rail relevant representations</a>
<b>Summaries of relevant representations and comments on relevant representations by other interested parties</b>	
REP1-004	<a href="#">Environment Agency - Relevant Representation summary</a>
REP1-005	<a href="#">Historic England - Comments regarding Relevant Representations</a>
<p><b>Deadline II – 8 October 2015</b></p> <ul style="list-style-type: none"> <li>• Written representations</li> <li>• Summaries of all written representations exceeding 1500 words</li> <li>• Responses to ExA’s first written questions</li> <li>• Local Impact Reports from any local authorities</li> <li>• Statements of Common Ground requested by the ExA</li> <li>• Comments on any further information requested by the ExA and received to Deadline I</li> </ul>	
<b>Applicant Submissions</b>	
REP2-001	<a href="#">Highways England - Cover letter and index of submission documents</a>
<b>Responses to ExA’s first written questions</b>	
REP2-002.1	<a href="#">Highways England -Responses to Examining Authority's first written questions: Section 1 to 3 - Policy</a>
REP2-002.2	<a href="#">Highways England - Responses to Examining Authority's first written questions: Section 1 to 3 - Appendix A - Relevant Planning History Addendum</a>
REP2-002.3	<a href="#">Highways England -Responses to Examining Authority's first written</a>

	<u>questions: Section 4 - Environment</u>
REP2-002.4	<u>Highways England - Responses to Examining Authority's first written questions: Section 4 - Appendix A - Table of mitigation measures</u>
REP2-002.5	<u>Highways England - Responses to Examining Authority's first written questions: Section 4 - Appendix B - Photomontages of the scheme from Cranford Park</u>
REP2-002.6	<u>Highways England - Responses to Examining Authority's first written questions: Section 4 - Appendix C - Table of information on location and heights of signs</u>
REP2-002.7	<u>Highways England - Responses to Examining Authority's first written questions: Section 4 - Appendix D - Flood compensation storage analysis</u>
REP2-002.8	<u>Highways England - Responses to Examining Authority's first written questions: Section 4 - Appendix E - Key plan for drawings 12.1 - 12.6</u>
REP2-002.9	<u>Highways England - Responses to Examining Authority's first written questions: Section 4 - Appendix F - Revised drawing 12.2</u>
REP2-002.10	<u>Highways England - Responses to Examining Authority's first written questions: Section 5 - Engineering and Design</u>
REP2-002.11	<u>Highways England - Responses to Examining Authority's first written questions: Section 5 - Appendix A - Minutes of meeting between Thames Valley police and Metropolitan Police</u>
REP2-002.12	<u>Highways England - Responses to Examining Authority's first written questions: Section 6 - Traffic Safety</u>
REP2-002.13	<u>Highways England - Responses to Examining Authority's first written questions: Section 7 - Socio-economic Impacts</u>
REP2-002.14	<u>Highways England - Responses to Examining Authority's first written questions: Section 7 - Appendix A - Regeneration Report</u>
REP2-002.15	<u>Highways England - Responses to Examining Authority's first written questions: Section 8 - Draft Development Consent Order</u>
REP2-002.16	<u>Highways England - Responses to Examining Authority's first written questions: Section 8 - Appendix A - Draft DCO Revision 1 (Clean Version)</u>
REP2-002.17	<u>Highways England - Responses to Examining Authority's first written questions: Section 8 - Appendix B - Draft DCO (Comparative Version) showing amendments made between Revision 1 and Application version</u>

**Responses to ExA's first written questions**

REP2-003.1	<u>Highways England - Responses to Examining Authority's first written questions: Section 9 - Compulsory Acquisition and Other Land Matters</u>
REP2-003.2	<u>Highways England - Responses to Examining Authority's first written questions: Section 9 - Appendix A - Table of possible purposes for land compulsorily acquired</u>
REP2-003.3	<u>Highways England - Responses to Examining Authority's first written questions: Section 9 - Appendix B - Table of private agreements</u>
REP2-003.4	<u>Highways England - Responses to Examining Authority's first written questions: Section 9 - Appendix C - Table of plots transferred from SST to Highways England</u>
REP2-003.5	<u>Highways England - Responses to Examining Authority's first written questions: Section 9 - Appendix D - Evidence of the transfers from the Land Registry</u>
REP2-003.6	<u>Highways England - Responses to Examining Authority's first written questions: Section 9 - Appendix E - Correspondence with CaCFPA</u>
REP2-003.7	<u>Highways England - Responses to Examining Authority's first written questions: Section 9 - Appendix F - Correspondence with GLD RVD</u>
REP2-003.8	<u>Highways England - Responses to Examining Authority's first written questions: Section 9 - Appendix G - Annotated map showing relationship between replacement common land and other common land</u>
REP2-003.9	<u>Highways England - Responses to Examining Authority's first written questions: Section 9 - Appendix H - List of s138 plots and parties</u>
REP2-003.10	<u>Highways England - Responses to Examining Authority's first written questions: Section 9 - Appendix I - Table of plots to which Article 24 applies</u>
REP2-003.11	<u>Highways England - Responses to Examining Authority's first written questions: Section 9 - Appendix J - Table of plots to which Article 26 applies</u>
REP2-003.12	<u>Highways England - Responses to Examining Authority's first written questions: Section 9 - Appendix K - Table of plots to which Article 28 applies</u>
REP2-003.13	<u>Highways England - Responses to Examining Authority's first written questions: Section 9 - Appendix L - Table of plots to which Article 30 applies</u>

REP2-003.14	<u>Highways England - Responses to Examining Authority's first written questions: Section 9 - Appendix M - Table showing lack of Part 3 parties</u>
REP2-004	<u>Highways England - Letter from Public Health England re Statement of Common Ground</u>
REP2-005	<u>Highways England - Position paper on Statements of Common Ground</u>
REP2-006	<u>Highways England - Signed Statement of Common Ground with West Berkshire District Council</u>
REP2-007	<u>Highways England - Signed Statement of Common Ground with Wokingham Town Council</u>
REP2-008	<u>Highways England - Signed Statement of Common Ground with Natural England</u>
REP2-009	<u>Highways England - Signed Statement of Common Ground with South Bucks District Council</u>
REP2-010	<u>Highways England - Signed Statement of Common Ground with Early Town Council</u>
REP2-011	<u>Highways England - Signed Statement of Common Ground with Historic England</u>
REP2-012	<u>Highways England - Signed Statement of Common Ground with London Borough of Hounslow</u>
REP2-013	<u>Highways England - Signed Statement of Common Ground with Reading Borough Council</u>
REP2-014	<u>Highways England - Signed Statement of Common Ground with Bracknell Forest Council</u>
<b>Written Representations by other interested parties</b>	
REP2-015	<u>Mr Anthony Massingham</u>
REP2-016	<u>GTC</u>
REP2-017	<u>David Green</u>
REP2-018	<u>Edward Keating</u>
REP2-019	<u>Civil Aviation Authority</u>
REP2-020	<u>Andrew Wilkinson on behalf of Dunelm Estates Ltd and Dunelm (Soft</u>

	<a href="#">Furnishings) Ltd</a>
REP2-021	<a href="#">J A Harris</a>
REP2-022	<a href="#">Malcolm Hunt</a>
REP2-023	<a href="#">Clive Jones on behalf of Wokingham Liberal Democrats</a>
REP2-024	<a href="#">Carrie Darby</a>
REP2-025	<a href="#">Richard Mawdsley</a>
REP2-026	<a href="#">Louisa Maxwell-Watters</a>
REP2-027	<a href="#">Dan Parry-Jones on behalf of Royal Mail Group Ltd</a>
REP2-028	<a href="#">National Grid</a>
REP2-029	<a href="#">RAC</a>
REP2-030	<a href="#">Royal Borough of Windsor and Maidenhead</a>
REP2-031	<a href="#">Natural England</a>
REP2-032	<a href="#">Jeannine Cooper</a>
REP2-033	<a href="#">University of Reading</a>
REP2-034	<a href="#">National Foundation for Educational Research</a>
REP2-035	<a href="#">Roger Denison on behalf of Tracy Dance</a>
REP2-036	<a href="#">Campaign for Better Transport</a>
REP2-037	<a href="#">Environment Agency - Written Representation with summary</a>
REP2-038	<a href="#">Network Rail Infrastructure Ltd - Written Representation with summary</a>
REP2-039	<a href="#">Buckinghamshire County Council</a>
REP2-040	<a href="#">South East Water</a>
<b>Responses to ExA's first written questions by other interested parties, Local Impact Reports and other documents</b>	
REP2-041	<a href="#">Waltham St. Lawrence Parish Council - Response to the Examining Authority's first written questions</a>
REP2-042	<a href="#">National Grid - Response to the Examining Authority's first written questions</a>

REP2-043	<u>Reading Friends of the Earth - Response to the Examining Authority's first written questions</u>
REP2-044	<u>Public Health England - Letter re Statement of Common Ground</u>
REP2-045	<u>London Borough of Hillingdon – Response to the Examining Authority's first written questions</u>
REP2-046	<u>CEMEX - Response to the Examining Authority's first written questions</u>
REP2-047	<u>Slough Borough Council - Local Impact Report</u>
REP2-048	<u>London Borough of Hillingdon - Draft Statement of Common Ground between Highways England and London Borough of Hillingdon (WITHDRAWN)</u>
REP2-049	<u>South Bucks District Council - Response to the Examining Authority's first written questions</u>
REP2-050	<u>South Bucks District Council - Local Impact Report prepared by South Bucks District Council and Buckinghamshire County Council</u>
REP2-051	<u>Network Rail Infrastructure Ltd - Response to the Examining Authority's first written questions</u>
REP2-052	<u>Environment Agency - Response to the Examining Authority's first written questions</u>
REP2-053	<u>London Borough of Hounslow - Signed Statement of Common Ground between Highways England and London Borough of Hounslow</u>
REP2-054	<u>Friends of the Earth England Wales and Northern Ireland - Written Representation and response to the Examining Authority's first written questions</u>
REP2-055	<u>London Borough of Hounslow - Local Impact Report</u>
REP2-056	<u>Reading Borough Council - Local Impact Report</u>
REP2-057	<u>South Bucks District Council - Statement of Common Ground between Highways England and South Bucks District Council</u>
REP2-058	<u>South East Water - Response to the Examining Authority's first written questions</u>
REP2-059	<u>Environment Agency - Draft Statement of Common Ground (WITHDRAWN)</u>
<b>Local Impact Report</b>	
REP2-060.1	<u>London Borough of Hillingdon - Local Impact Report submitted for</u>



	<u>Deadline II -Final</u>
REP2-060.2	<u>London Borough of Hillingdon -Local Impact Report submitted for Deadline II- Appendix 1 – Air Quality Action Plan 2</u>
REP2-060.3	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 - UPD cover page</u>
REP2-060.4	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 – Planning Obligations SPD cover page</u>
REP2-060.5	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 – Noise Supplementary Planning Document</u>
REP2-060.6	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 – Planning Obligations SPD chapter 5</u>
REP2-060.7	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 - Planning Obligations SPD chapter 8</u>
REP2-060.8	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 - Policy – AM3</u>
REP2-060.9	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 - Policy – AM7</u>
REP2-060.10	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 - Policy – AM9</u>
REP2-060.11	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 - Policy – BE1</u>
REP2-060.12	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 - Policy - BE4</u>
REP2-060.13	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 - Policy – BE10</u>
REP2-060.14	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 - Policy – BE19</u>
REP2-060.15	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 - Policy – BE34</u>
REP2-060.16	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 - Policy – BE39</u>
REP2-060.17	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 - Policy – EM1</u>

REP2-060.18	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 - Policy – EM6</u>
REP2-060.19	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 - Policy – EM7</u>
REP2-060.20	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 - Policy – HE1</u>
REP2-060.21	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 - Policy – OE1</u>
REP2-060.22	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 - Policy – OE3</u>
REP2-060.23	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 – Air Quality Action Plan 1</u>
REP2-060.24	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 – Air Quality Action Plan 2</u>
REP2-060.25	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 - Air Quality Action Plan 3</u>
REP2-060.26	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 1 – Local Plan Part 1 cover page</u>
REP2-060.27	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 2 - Cranford Park Access Drawing</u>
REP2-060.28	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 3 – Air Quality M4 and Wider Area</u>
REP2-060.29	<u>London Borough of Hillingdon -Local Impact Report submitted for Deadline II- Appendix 4</u>
REP2-060.30	<u>London Borough of Hillingdon - Local Impact Report submitted for Deadline II- Appendix 5 - M4 Smart Motorway Review</u>

### **Deadline III – 5 November 2015**

- Comments on Written Representations
- Comments on Local Impact Reports
- Comments on responses to ExA’s first written questions
- Updated Statements of Common Ground
- Applicant’s revised draft Development Consent Order and associated documents
- Applicant’s table setting out progress on compulsory acquisition negotiations

- Responses to the ExA's request for further information dated 17 October 2015

<b>Applicant Submissions</b>	
REP3-001	<u>Highways England -Comparite Statement of Reasons</u>
REP3-002	<u>Highways England - comparite Explanatory Memorandum</u>
REP3-003	<u>Highways England - Comparite Book of Reference</u>
REP3-004	<u>Highways England - Comparite Construction Environmental Manangement Plan (CEMP)</u>
REP3-005	<u>Highways England - Clean draft Development Consent Order</u>
REP3-006	<u>Highways England - Comparite draft Development Consent Order</u>
REP3-007	<u>Highways England - Response to the Rule 17 letter issued on 27 October 2015</u>
REP3-008	<u>Highways England - Updated Land Plans</u>
REP3-009	<u>Highways England - Nighttime Landscape and Visual Assessment</u>
REP3-010	<u>Highways England - Revised Construction Environmental Management Plan (CEMP)</u>
REP3-011	<u>Highways England - Update on Progress of Compulsory Acquisition Negotiations</u>
REP3-012	<u>Highways England - Health Impact Assessment</u>
REP3-013	<u>Highways England - Updated Explanatory Memorandum</u>
<b>Comments on responses to ExA's first written questions</b>	
REP3-014.1	<u>Highways England - Comments on response by CEMEX to Examining Authority's first written questions</u>
REP3-014.2	<u>Highways England - Comments on response by the Environment Agency to Examining Authority's first written questions</u>
REP3-014.3	<u>Highways England - Comments on response by London Borough of Hillingdon to Examining Authority's first written questions</u>
REP3-014.4	<u>Highways England – Comments on response by London Borough of Hillingdon to Examining Authority's first written questions: Appendix A Photomontages of Harlington Conservation Area</u>
REP3-014.5	<u>Highways England -Comments on response by Reading Friends of the</u>

	<u>Earth to Examining Authority's first written questions</u>
REP3-014.6	<u>Highways England - Comments on response by South Bucks District Council to Examining Authority's first written questions</u>
REP3-014.7	<u>Highways England - Comments on response by Network Rail Ltd to Examining Authority's first written questions</u>
REP3-014.8	<u>Highways England - Comments on response by Waltham St Lawrence Parish Church to Examining Authority's first written questions</u>
REP3-015	<u>Highways England - DCO Requirements Discharge - Explanatory Note for ExA</u>
REP3-016	<u>Highways England - Cover letter and index of submission documents</u>
<b><i>Comments on Local Impact Reports</i></b>	
REP3-017.1	<u>Highways England - Response to Local Impact Report produced by London Borough of Hillingdon</u>
REP3-017.2	<u>Highways England - Response to Local Impact Report produced by London Borough of Hillingdon: Appendix A - Turning count diagrams, 2022 traffic flows</u>
REP3-017.3	<u>Highways England - Response to Local Impact Report produced by London Borough of Hillingdon: Appendix B - Photomontages of Harlington Conservation Area</u>
REP3-017.4	<u>Highways England - Response to Local Impact Report produced by London Borough of Hounslow</u>
REP3-017.5	<u>Highways England - Response to Local Impact Report produced by Reading Borough Council</u>
REP3-017.6	<u>Highways England - Response to Local Impact Report produced by Slough Borough Council</u>
REP3-017.7	<u>Highways England - Response to Local Impact Report produced by South Bucks District Council and Buckinghamshire County Council</u>
REP3-018	<u>Highways England - Signed Statement of Common Ground with Buckinghamshire County Council</u>
REP3-019	<u>Highways England - Position Paper on Statements of Common Ground (including response to Public Health England's Letter of 8 October 2015)</u>
REP3-020	<u>Highways England - Position Paper on Updated Land Information</u>

REP3-021	<a href="#">Highways England - Updated Book of Reference</a>
REP3-022	<a href="#">Highways England - Updated Statement of Reasons</a>
<b><i>Comments on Written Representations</i></b>	
REP3-023.1	<a href="#">Highways England - Response to Written Representation by Buckinghamshire County Council</a>
REP3-023.2	<a href="#">Highways England - Response to Written Representation by the Burnham Abbey Conservation Group</a>
REP3-023.3	<a href="#">Highways England - Response to Written Representation by Carrie Darby</a>
REP3-023.4	<a href="#">Highways England - Response to Written Representation by Carrie Darby - Appendix A</a>
REP3-023.5	<a href="#">Highways England - Response to Written Representation by Campaign for Better Transport</a>
REP3-023.6	<a href="#">Highways England - Response to Written Representation by Clive Jones on behalf of Wokingham Liberal Democrats</a>
REP3-023.7	<a href="#">Highways England - Response to Written Representation by the Civil Aviation Authority</a>
REP3-023.8	<a href="#">Highways England - Response to Written Representation by David Green</a>
REP3-023.9	<a href="#">Highways England - Response to Written Representation by David Green - Appendix A</a>
REP3-023.10	<a href="#">Highways England - Response to Written Representation by David Green - Appendix B</a>
REP3-023.11	<a href="#">Highways England - Response to additional submission by David Green</a>
REP3-023.12	<a href="#">Highways England - Response to Written Representation by Dunelm</a>
REP3-023.13	<a href="#">Highways England - Response to Written Representation by Enrico Petrucco</a>
REP3-023.14	<a href="#">Highways England - Response to Written Representation by Edward Keating</a>
REP3-023.15	<a href="#">Highways England - Response to Written Representation by the Environment Agency</a>

REP3-023.16	<u>Highways England - Response to Written Representation by Environment Agency: Appendix A - Updated Flood Risk Assessment</u>
REP3-023.17	<u>Highways England - Response to Written Representation by Environment Agency: Appendix B - Comparison of water bodies GB106039023470 and GB106039023550</u>
REP3-023.18	<u>Highways England - Response to Written Representation by Environment Agency: Appendix C - Comparative review of 2009 and 2014 baseline surface water data</u>
REP3-023.19	<u>Highways England - Response to Written Representation by Fiona Mactaggart</u>
REP3-023.20	<u>Highways England - Response to Written Representation by Friends of the Earth England, Wales and Northern Ireland</u>
REP3-023.21	<u>Highways England - Response to Written Representation by Friends of the Earth England, Wales and Northern Ireland - Appendix A</u>
REP3-023.22	<u>Highways England - Response to Written Representation by Jeannine Cooper</u>
REP3-023.23	<u>Highways England - Response to Written Representation by J A Harris</u>
REP3-023.24	<u>Highways England - Response to Written Representation by Louisa Maxwell-Watters</u>
REP3-023.25	<u>Highways England - Response to Written Representation by M Hunt</u>
REP3-023.26	<u>Highways England - Response to Written Representation by Mr Anthony Massingham</u>
REP3-023.27	<u>Highways England - Response to Written Representation by Mr Anthony Massingham: Appendix A</u>
REP3-023.28	<u>Highways England - Response to Written Representation by Mr Anthony Massingham: Appendix B</u>
REP3-023.29	<u>Highways England - Response to Written Representation by National Foundation for Educational Research</u>
REP3-023.30	<u>Highways England - Response to Written Representation by Network Rail Infrastructure Ltd</u>
REP3-023.31	<u>Highways England - Response to Written Representation by Network Rail Infrastructure Ltd: Appendix A - Updated Land Plans, Sheet 27</u>
REP3-023.32	<u>Highways England - Response to Written Representation by Network Rail Infrastructure Ltd: Appendix B - Email from Network</u>

	<u>Piper, dated 8 July 2015</u>
REP3-023.33	<u>Highways England - Response to Written Representation by Network Rail Infrastructure Ltd: Appendix C - Section 56 representation of Network Rail, dated 9 July 2015</u>
REP3-023.34	<u>Highways England - Response to Written Representation by Network Rail Infrastructure Ltd: Appendix D - Letter from Network Rail, dated 20 October 2015</u>
REP3-023.35	<u>Highways England - Response to Written Representation by Network Rail Infrastructure Ltd: Appendix E - Basic Asset Protection Agreement (with Contract Purchase Agreement), dated 18 July 2013</u>
REP3-023.36	<u>Highways England - Response to Written Representation by the RAC</u>
REP3-023.37	<u>Highways England - Response to Written Representation by the RAC - Appendix A</u>
REP3-023.38	<u>Highways England - Response to Written Representation by Richard Mawdsley</u>
REP3-023.39	<u>Highways England - Response to Written Representation by Royal Borough of Windsor and Maidenhead</u>
REP3-023.40	<u>Highways England - Response to Written Representation by Royal Mail</u>
REP3-023.41	<u>Highways England - Response to Written Representation by South East Water</u>
REP3-023.42	<u>Highways England - Response to Written Representation by Ms T Dance</u>
REP3-023.43	<u>Highways England - Response to Written Representation by University of Reading</u>
<b>Comments on responses to ExA's first written questions and responses to request for further information dated 17 October 2015</b>	
REP3 -024	<u>Natural England</u>
REP3-025	<u>Campaign for Better Transport</u>
REP3-026	<u>Friends of the Earth England Wales and Northern Ireland</u>
<b>Deadline IV – 26 November 2015</b>	
<ul style="list-style-type: none"> <li>• Written summaries of oral submissions put at hearings held in w/c 16 November 2016</li> <li>• Comments on any further information requested by the ExA and received to</li> </ul>	

Deadline III	
<ul style="list-style-type: none"> <li>Any further information requested by the ExA under Rule 17 of the Exam Rules</li> </ul>	
<b>Applicant Submissions</b>	
<b><i>Written summary of oral submissions put at the issue specific hearing dealing with matters relating to the environment on Tuesday 17 and Wednesday 18 November 2015, and additional information requested by the Examining Authority</i></b>	
REP4-001.1	<u>Highways England - Written summary of oral submissions put at the issue specific hearing dealing with matters relating to the environment on Tuesday 17 and Wednesday 18 November 2015, and additional information requested by the Examining Authority</u>
REP4-001.2	<u>Highways England - Appendix A - Environment additional representations</u>
REP4-001.3	<u>Highways England - Appendix B - Summary of developments considered as part of traffic modelling</u>
REP4-001.4	<u>Highways England - Appendix C - Ricardo-AEA Report- Production of Updated Emission Curves for Use in the National Transport Model</u>
REP4-001.5	<u>Highways England - Appendix D - Institute of Air Quality Management Guidance</u>
REP4-001.6	<u>Highways England - Appendix E - Derivation of LTTE6 used in the Environmental Statement</u>
REP4-001.7	<u>Highways England - Appendix F - Assessment of the Effect of a NOx Barrier on Air Quality</u>
REP4-001.8	<u>Highways England - Appendix G - Transport Research Laboratory Report PPR485 The Performance of Quieter Surfaces Over Time</u>
REP4-001.9	<u>Highways England - Appendix H - Plans showing residential properties</u>
REP4-001.10	<u>Highways England - Appendix I - Technical note on discussions with Wokingham Borough Council</u>
REP4-001.11	<u>Highways England - Appendix J - Photomontage A4 3.9 of Oak Stubbs Lane</u>
REP4-001.12	<u>Highways England - Appendix K - Table of locations where replacement planting is less than original area</u>
<b><i>Written summary of oral submissions put at the issue specific hearing dealing with matters relating to road safety on Wednesday 18 November 2015, and</i></b>	



<b><i>additional information requested by the Examining Authority</i></b>	
REP4-002.1	<u>Highways England - Written summary of oral submissions put at the issue specific hearing dealing with matters relating to road safety on Wednesday 18 November</u>
REP4-002.2	<u>Highways England - Appendix A - Road Safety Additional Representations</u>
REP4-002.3	<u>Highways England - Appendix B - Reported Road Casualties Great Britain 2014 Annual Report - Moving Britain ahead (September 2015)</u>
REP4-002.4	<u>Highways England - Appendix C - Evaluation of the provision of Refuge Areas (Ref MMFD-ERA-030- Final Issue - June 2012)</u>
REP4-002.5	<u>Highways England - Appendix D - 2001 Report Safe Haven Layby Frequency and Specification</u>
REP4-002.6	<u>Highways England - Appendix E - Active Traffic Management Safety Monitoring: First set of 4- Lane Variable Mandatory Speed Limits Results</u>
REP4-003	<u>Highways England - Written summary of oral submissions put at the compulsory acquisition hearing on Thursday 19 November 2015, and additional information requested by the Examining Authority</u>
REP4-004	<u>Highways England - Letter covering submissions</u>
<b><i>Written summary of oral submissions put at the open floor hearings held in November 2015, and additional information requested by the Examining Authority</i></b>	
REP4-005.1	<u>Highways England - Written summary of oral submissions put at the open floor hearings held in November 2015</u>
REP4-005.2	<u>Highways England - Appendix A - Open Floor Hearings Additional Representations</u>
REP4-005.3	<u>Highways England - Appendix B - Infrastructure Act 2015</u>
REP4-005.4	<u>Highways England - Appendix C - Strategic Highways Licence</u>
REP4-005.5	<u>Highways England - Appendix D - Highways England Delivery Plan</u>
REP4-005.6	<u>Highways England - Appendix E - Department for Transport Road Investment Strategy</u>
REP4-006	<u>Highways England - Written summary of oral submissions put at the issue specific hearing dealing with matters relating to the draft Development Consent Order on 19 November 2015, and additional</u>

	<u>information requested by the Examining Authority</u>
REP4-007	<u>Highways England - Written submission of representations not made orally at November 2015 hearings, comprising response to additional submissions</u>
REP4-008	<u>Highways England - Additional information requested by Examining Authority</u>
<b>Written summaries of oral submissions put by other interested parties at hearings held in w/c 16 November 2015 and other documents</b>	
REP4-009	<u>Dave Green - Written summary of oral submissions put at the open floor hearing on Monday 16 November 2015</u>
REP4-010	<u>Tony Johnson - Written submission of representations not made orally at the open floor hearing held on 16 November 2015</u>
REP4-011	<u>Beverley Hunt - Written submission of representations not made orally at November 2015 hearings</u>
REP4-012	<u>Cemex - Submission to compulsory acquisition hearing on Thursday 19 November 2015 comprising position statement</u>
REP4-013	<u>Bloor Homes Limited and Anita Thomas - Submission to compulsory acquisition hearing on Thursday 19 November 2015 comprising position statement</u>
REP4-014	<u>Dr Norman Jorgensen - Additional information requested by Examining Authority at open floor hearing held on Monday 16 November 2015</u>
REP4-015	<u>Tim Holton - Additional information requested by Examining Authority at open floor hearing held on Monday 16 November 2015</u>
REP4-016	<u>Dr Norman Jorgensen - Additional information requested by Examining Authority at issue specific hearing dealing matters relating to the environment on Wednesday 18 November 2015</u>
REP4-017	<u>London Borough of Hillingdon - Additional information requested by Examining Authority at November 2015 hearings</u>
REP4-018	<u>Reading Friends of the Earth - Written summary of oral submissions put at November 2015 hearings</u>
REP4-019	<u>National Grid - Written submission of representations not made orally at November 2015 hearings</u>
REP4-020	<u>Jan Heard on behalf of Mid and West Berkshire Local Access Forum - Written submission of representations not made orally at November 2015 hearings</u>

REP4-021	<u>South Buckinghamshire District Council - Written summary of oral submissions put at issue specific hearings held in November 2015 hearings</u>
REP4-022	<u>Margaret Cocks - Written summary of oral submissions put at the open floor hearing on Monday 16 November 2015</u>
REP4-023	<u>Clive Jones on behalf of Wokingham Liberal Democrats - Written summary of oral submissions put at November 2015 hearings (incorporating additional information requested by the Examining Authority)</u>
REP4-024	<u>University of Reading - Written submission of representations not made orally at November 2015 hearings</u>
REP4-025	<u>Wokingham Borough Council - Written submission of representations not made orally at November 2015 hearings</u>
REP4-026	<u>Thames Water - Submission to compulsory acquisition hearing on Thursday 19 November 2015 comprising holding objection (and associated correspondence treated as submissions to Deadline IV)</u>
REP4-027	<u>Buckinghamshire County Council - Submission to issue specific hearing dealing with matters relating to the environment on Tuesday 17 November 2015 comprising technical note on traffic impacts</u>
REP4-028	<u>Environment Agency - Written summary of oral submissions put at issue specific hearings held in November 2015</u>
REP4-029	<u>Public Health England - Written summary of oral submissions put at the issue specific hearing dealing with matters relating to the environment on Tuesday 17 November 2015</u>
REP4-030	<u>Hayes Community Development Forum - Written summary of oral submissions put at the open floor hearing on Thursday 19 November 2015</u>
REP4-031	<u>Campaign for Better Transport - Written summary of oral submissions put at issue specific hearings held in November 2015</u>
REP4-032	<u>Buckinghamshire County Council - Written summary of oral submissions put at issue specific hearings held in November 2015, including additional information requested by the Examining Authority and written submission of representations not made orally at November 2015 hearings</u>
<b><i>Written summary of oral submissions put at issue specific and compulsory acquisition hearings held in November 2015, and additional information requested by the Examining Authority</i></b>	

REP4-033.1	<u>London Borough of Hillingdon - Written statement of response on the Compulsory Acquisition Hearing</u>
REP4-033.2	<u>London Borough of Hillingdon - Written statement of response on the Environment</u>
REP4-033.3	<u>London Borough of Hillingdon - Written Statement of response on Road Safety</u>
REP4-033.4	<u>London Borough of Hillingdon - Air Quality Proof of Evidence from Duncan Laxen on behalf of London Borough of Hillingdon</u>
REP4-033.5	<u>London Borough of Hillingdon - Appendices to Air Quality Proof of Evidence</u>
REP4-033.6	<u>London Borough of Hillingdon - Analysis of the Relationship Between 1-Hour and Annual Mean Nitrogen Dioxide at UK Roadside and Kerbside Monitoring Sites</u>
<p><b><i>Written summary of oral submissions put at the issue specific hearing dealing with matters relating to the environment on Tuesday 17 and Wednesday 18 November 2015, additional information requested by the Examining Authority and written submission of representations not made orally at November 2015 hearings</i></b></p>	
REP4-034.1	<u>Slough Borough Council - Written Summaries and Evidence of oral submissions put at Specific Issue Hearing dealing with matters relating to the environment</u>
REP4-034.2	<u>Slough Borough Council - Additional evidence relating to the Specific Issues Hearing of 17 November</u>
REP4-034.3	<u>Slough Borough Council - Joint Statement Cumulative Development</u>
REP4-034.4	<u>Slough Borough Council - Examples of air quality measures near roads within Europe National measures of the international CEDR air quality group</u>
REP4-034.5	<u>Slough Borough Council - Real- world exhaust emissions from modern Diesel cars ICCT</u>
REP4-034.6	<u>Slough Borough Council - Field investigation of roadside vegetative and structural barrier impact on near-road ultrafine</u>
REP4-034.7	<u>Slough Borough Council - Passive methods for improving air quality in the built environment: A review of porous and solid barriers</u>
REP4-034.8	<u>Slough Borough Council - Model evaluation of roadside barrier impact on</u>

	<u>near- road air pollution</u>
REP4-034.9	<u>Slough Borough Council - Dutch Air Quality Innovation Programme concluded</u>
REP4-034.10	<u>Slough Borough Council - Sound wall barriers Near roadway dispersion under neutrally stratified boundary layer Sam Pournazeri et al 2015</u>
REP4-035	<u>Friends of the Earth - Written summary of oral submissions put at hearings held in November 2015</u>
REP4-036	<u>Beverly Hakesley - Late submission to Deadline IV comprising written summary of oral representations put at compulsory acquisition hearing on Thursday 19 November 2015 (including photographs submitted to the hearing showing construction and opening of Maidenhead Bypass)</u>
REP4-037	<u>Margaret Cocks - Additional information requested by Examining Authority at open floor hearing held on Monday 16 November 2015</u>
REP4-038	<u>Clive Jones on behalf of Wokingham Liberal Democrats - Late submission to Deadline IV comprising road map of Lower Earley showing the locations of measured noise readings</u>
REP4-039	<u>London Borough of Hillingdon - Late submission to Deadline IV comprising revised written summaries of oral submissions put at the issue specific hearings held in November 2015. As para 1.22 of the original version was incomplete, a corrected version was published to replace it on 7 December 2015</u>
<b>Deadline V – 8 January 2016</b>	
<ul style="list-style-type: none"> <li>• Responses to ExA's second written questions</li> </ul>	
<b>Applicant Submissions</b>	
REP5-001	<u>Highways England - Cover letter and index of submission documents</u>
<i>Additional Documents</i>	
REP5-002.1	<u>Highways England - Revised CTMP - January 2016 (Clean)</u>
REP5-002.2	<u>Highways England - Revised CTMP - January 2016 (Track Changes)</u>
REP5-002.3	<u>Highways England - Revised CEMP - January 2016 (Clean)</u>
REP5-002.4	<u>Highways England - Revised CEMP - January 2016 (Track Changes)</u>
REP5-002.5	<u>Highways England - Signed Statement of Common Ground with the Environment Agency</u>
REP5-002.6	<u>Highways England - Updated Flood Risk Assessment Comparite</u>

	<u>(Deadline III to Deadline V)</u>
REP5-002.7	<u>Highways England - Flood Risk Assessment (January 2016)</u>
REP5-002.8	<u>Highways England - Flood Risk Assessment (January 2016) - Annex A - Flood Maps</u>
REP5-002.9	<u>Highways England - Flood Risk Assessment (January 2016) - Annex B - HADDMS Register</u>
REP5-002.10	<u>Highways England - Flood Risk Assessment (January 2016) - Annex C - Flooding from Reservoirs</u>
REP5-002.11	<u>Highways England - Flood Risk Assessment (January 2016) - Annex D - Flood Compensation Spreadsheet</u>
REP5-002.12	<u>Highways England - Flood Risk Assessment (January 2016) - Annex E - Cross Section Drawings</u>
REP5-002.13	<u>Highways England - Flood Risk Assessment (January 2016) - Annex F - Maps Showing Compensation Areas</u>
REP5-002.14	<u>Highways England - Flood Risk Assessment (January 2016) - Annex G - Flood Risk Plans</u>
REP5-002.15	<u>Highways England - Flood Risk Assessment (January 2016) - Annex H - Works Plan With Compensation Data</u>
REP5-002.16	<u>Highways England - Draft DCO (Clean)</u>
REP5-002.17	<u>Highways England - Draft DCO Comparite (Deadline III to Deadline V)</u>
REP5-002.18	<u>Highways England - Drainage Strategy Report</u>
REP5-002.19	<u>Highways England - Drainage Strategy Report Comparite (Submission to Deadline V)</u>
REP5-002.20	<u>Highways England - Explanatory Note of Discharge of DCO Requirements</u>
REP5-002.21	<u>Highways England - Explanatory Note Clarifying Position on Lighting Columns</u>
REP5-002.22	<u>Highways England - Hydrological Risk Assessment</u>
REP5-002.23	<u>Highways England – Enhanced Noise Mitigation Study</u>
REP5-002.24	<u>Highways England - Updated Table of Mitigation Comparite (Deadline IV to Deadline V)</u>

REP5-002.25	<a href="#">Highways England - Updated Table of Mitigation (Deadline V version 2)</a>
<b><i>Comments on Additional Submissions</i></b>	
REP5-003.1	<a href="#">Highways England - Response to written submission by Arborfield and Newland Parish Council</a>
REP5-003.2	<a href="#">Highways England - Response to written submission by Beverley Hunt</a>
REP5-003.3	<a href="#">Highways England - Response to written submission by Buckinghamshire County Council</a>
REP5-003.4	<a href="#">Highways England - Response to written submission by Campaign for Better Transport</a>
REP5-003.5	<a href="#">Highways England - Response to written submission by David Green</a>
REP5-003.6	<a href="#">Highways England - Response to written submission by Clive Jones on behalf of Wokingham Liberal Democrats</a>
REP5-003.7	<a href="#">Highways England - Response to written submission by Dr Scott Hamilton for Slough Borough Council</a>
REP5-003.8	<a href="#">Highways England - Response to written submission by Cllr Gary Cowan</a>
REP5-003.9	<a href="#">Highways England - Response to written submission by Hayes Community Development Forum</a>
REP5-003.10	<a href="#">Highways England - Response to written submission by Jan Heard</a>
REP5-003.11	<a href="#">Highways England - Response to written submission by Jason Newman for Slough Borough Council</a>
REP5-003.12	<a href="#">Highways England - Response to written submission concerning noise at Lower Earley by Dr Norman Jorgensen</a>
REP5-003.13	<a href="#">Highways England - Response to written submission concerning noise in Wokingham Borough by Dr Norman Jorgensen</a>
REP5-003.14	<a href="#">Highways England - Response to written submission concerning photovoltaics by Dr Norman Jorgensen</a>
REP5-003.15	<a href="#">Highways England - Response to written submission by Reading Friends of the Earth</a>
REP5-003.16	<a href="#">Highways England - Response to written submission by Public Health England</a>
REP5-003.17	<a href="#">Highways England - Response to written submission concerning noise by Margaret Cocks</a>

REP5-003.18	<a href="#">Highways England - Response to written submission by Margaret Cocks comprising Defra noise maps</a>
REP5-003.19	<a href="#">Highways England - Response to written submission by South Bucks District Council</a>
REP5-003.20	<a href="#">Highways England - Response to written submission by Tony Johnson</a>
REP5-003.21	<a href="#">Highways England - Response to written submission by Thames Water</a>
<b><i>Responses to ExA's second written questions</i></b>	
REP5-004.1	<a href="#">Highways England - Responses to ExA's Second Written Questions - Environment</a>
REP5-004.2	<a href="#">Highways England - Response to ExA's Second Written Questions - Compulsory Acquisition</a>
REP5-004.3	<a href="#">Highways England - Responses to ExA's Second Written Questions - Compulsory Acquisition - Appendix A</a>
REP5-004.4	<a href="#">Highways England - Response to ExA's Second Written Questions - DCO</a>
REP5-004.5	<a href="#">Highways England - Responses to ExA's Second Written Questions - Environment - Appendix A - Photomontages 40, 41 and 53-67 of Cranford Park</a>
REP5-004.6	<a href="#">Highways England - Responses to ExA's Second Written Questions - Environment - Appendix B - IAN 176-13</a>
REP5-004.7	<a href="#">Highways England - Responses to ExA's Second Written Questions - Compulsory Acquisition - Appendix B - Plan showing relationship between planning permission 0-2006-8687 (Persimmon Homes and Bovis Homes) and the Scheme</a>
REP5-004.8	<a href="#">Highways England - Responses to ExA's Second Written Questions - Environment - Appendix C - Minutes of meetings between Highways England and Buckinghamshire County Council</a>
REP5-004.9	<a href="#">Highways England - Responses to ExA's Second Written Questions - Environment - Appendix D - Additional information request from Mike Knowles on 24 November 2015 and Highways England response</a>
REP5-004.10	<a href="#">Highways England - Responses to ExA's Second Written Questions - Environment - Appendix E - Improving Air Quality in the UK: Tackling Nitrogen Dioxide in our Towns and Cities</a>
REP5-004.11	<a href="#">Highways England - Responses to ExA's Second Written Questions - Environment - Appendix F - Defra Emissions Factor Toolkit User Guide</a>



REP5-004.12	<u>Highways England - Responses to ExA's Second Written Questions - Environment - Appendix G - Traffic Forecasting Report (Chapter 6)</u>
<b><i>Comments on summaries of oral submissions put at hearings held in w/c 16 November 2015 and other documents</i></b>	
REP5-005.1	<u>Highways England - Response to Summary of Oral Hearing Submissions - Buckinghamshire County Council</u>
REP5-005.2	<u>Highways England - Response to Summary of Oral Hearing Submissions - Environment Agency</u>
REP5-005.3	<u>Highways England - Response to Summary of Oral Hearing Submissions - Friends of the Earth</u>
REP5-005.4	<u>Highways England - Response to Summary of Oral Hearing Submissions - London Borough of Hillingdon - Road Safety</u>
REP5-005.5	<u>Highways England - Response to Summary of Oral Hearing Submissions - London Borough of Hillingdon - Environment</u>
REP5-005.6	<u>Highways England - Response to Summary of Oral Hearing Submissions of London Borough of Hillingdon - Environment - Appendix E - Cumulative Assessments and Local Impacts</u>
REP5-005.7	<u>Highways England - Response to Summary of Oral Hearing Submissions - London Borough of Hillingdon - Compulsory Acquisition</u>
REP5-005.8	<u>Highways England - Response to Summary of Oral Hearing Submissions of London Borough of Hillingdon - Environment - Appendix A - In-service emissions performance of Euro 6/VI vehicles</u>
REP5-005.9	<u>Highways England - Response to Joint Statement on Cumulative Development by London Borough of Hillingdon, Slough BC, South Bucks DC and Bucks CC</u>
REP5-005.10	<u>Highways England - Response to written submission by Dr Scott Hamilton for Slough Borough Council</u>
REP5-006	<u>Highways England - Updated works plans</u>
<b><i>Updated land information documents</i></b>	
REP5-007.1	<u>Highways England - Updated Book of Reference Comparite (Deadline III to Deadline V)</u>
REP5-007.2	<u>Highways England - Updated Book of Reference (Clean)</u>
REP5-007.3	<u>Highways England - Updated Statement of Reasons (Clean)</u>

REP5-007.4	<a href="#">Highways England - Updated Statement of Reasons Comaparite (Deadline III to Deadline V)</a>
REP5-007.5	<a href="#">Highways England - Updated Land Plans</a>
REP5-007.6	<a href="#">Highways England - Position Paper on Updated Land Information</a>
REP5-008	<a href="#">Highways England - Updated application document list</a>
<b>Other documents</b>	
REP5-020	<a href="#">Highways England -Omitted appendices to Statement of Common Ground between Highways England and the Environment Agency submitted to Deadline V, comprising Flood Risk Assesement versioning and associated documentation</a>
REP5-021	<a href="#">Highways England - Enhanced Noise Mitigation Study - Appendix D (Drawing 1)</a>
REP5-022	<a href="#">Highways England - Enhanced Noise Mitigation Study - Appendix E (Drawing 2). Sheets 3 - 9 were received late and accepted by the Examining Authority on 13 January 2016</a>
<b>Responses by other interested parties to ExA's second written questions</b>	
REP5-009	<a href="#">Buckinghamshire County Council - Response to the Examining Authority's second written questions (and additional comments)</a>
REP5-010	<a href="#">Natural England - Response to the Examining Authority's second written questions</a>
REP5-011	<a href="#">South Bucks District Council - Response to the Examining Authority's second written questions</a>
REP5-012	<a href="#">Arborfield and Newland Parish Council - Response to the Examining Authority's second written questions</a>
REP5-013	<a href="#">Affinity Water - Response to the Examining Authority's second written questions</a>
REP5-014	<a href="#">Slough Borough Council - Response to the Examining Authority's second written questions</a>
REP5-015	<a href="#">London Borough of Hillingdon - Response to the Examining Authority's second written questions</a>
REP5-016	<a href="#">Bloor Homes Limited and Anita Thomas - Response to the Examining Authority's second written questions</a>
REP5-017	<a href="#">Network Rail Infrastructure Ltd - Response to the Examining Authority's</a>

	<a href="#">second written questions</a>
REP5-018	<a href="#">Environment Agency - Response to the Examining Authority's second written questions</a>
REP5-019	<a href="#">Reading Friends of the Earth - Observations on Deadline IV material</a>
<p><b>Deadline VI – 29 January 2016</b></p> <ul style="list-style-type: none"> <li>• Comments on responses to ExA’s second written questions</li> <li>• Comments on further information requested by the ExA and received to Deadline V</li> <li>• Any further information requested by the ExA under Rule 17 of the Exam Rules</li> </ul>	
<p><b>Applicant Submissions</b></p>	
REP6-001	<a href="#">Highways England - Covering letter for Deadline VI</a>
REP6-002	<a href="#">Highways England - Index to Deadline VI Submission</a>
REP6-003	<a href="#">Highways England - Comments on Responses to ExA Second Written Questions - Slough Borough Council - Appendix A</a>
REP6-004	<a href="#">Highways England - Comments on Responses to ExA Second Written Questions - Environment Agency - Appendix A</a>
REP6-005	<a href="#">Highways England - Comments on Responses to ExA Second Written Questions - Slough Borough Council - Appendix B</a>
REP6-006	<a href="#">Highways England - Comments on Responses to ExA Second Written Questions - Environment Agency - Appendix B</a>
REP6-007	<a href="#">Highways England - Comments on Responses to ExA Second Written Questions - Slough Borough Council - Appendix C</a>
REP6-008	<a href="#">Highways England - Comments on Responses to ExA Second Written Questions - Slough Borough Council</a>
REP6-009	<a href="#">Highways England - Comments on Responses to ExA Second Written Questions - Environment Agency</a>
REP6-010	<a href="#">Highways England - Response to written submission by Slough MotoX Parc</a>
REP6-011	<a href="#">Highways England - Response to written submission by Slough MotoX Parc - Appendix A</a>
REP6-012	<a href="#">Highways England - M25 All Lane Running Report Explanatory Note</a>
REP6-013	<a href="#">Highways England - Comments on Responses to ExA Second Written</a>

	<a href="#">Questions - London Borough of Hillingdon</a>
REP6-014	<a href="#">Highways England - Comments on Responses to ExA Second Written Questions - South Buckinghamshire District Council</a>
REP6-015	<a href="#">Highways England - M25 All Lane Running Report</a>
REP6-016	<a href="#">Highways England - Response to written submission by Arborfield and Newland Parish Council</a>
REP6-017	<a href="#">Highways England - Response to written submission by Reading Friends of the Earth</a>
REP6-018	<a href="#">Highways England - Note on Air Quality Requirements of the National Policy Statement for National Networks (NNNPS)</a>
REP6-019	<a href="#">Highways England - Comments on Responses to ExA Second Written Questions - Buckinghamshire County Council</a>
<b>Comments on responses to ExA's second written questions by other interested parties and other documents</b>	
REP6-020	<a href="#">Cllr Gary Cowan - Comments on Responses to ExA's Second Written Questions</a>
REP6-021	<a href="#">Hayes Community Development Forum - Comments on Responses to ExA's Second Written Questions</a>
REP6-022	<a href="#">Campaign for Better Transport - Comments submitted for Deadline VI – Late submission accepted by the Examining Authority</a>
REP6-023	<a href="#">Environment Agency - Comments submitted for Deadline VI including meeting note with applicant regarding Flood Risk Assessment</a>
REP6-024	<a href="#">London Borough of Hillingdon - Comments on Responses to ExA's Second Written Questions</a>
REP6-025	<a href="#">Tim Holton – Comments on Responses to ExA's Second Written Questions</a>
REP6-026	<a href="#">Mike Heard - Comments on Responses to ExA's Second Written Questions</a>
REP6-027	<a href="#">Dr Norman Jorgensen - Comments on Responses to ExA's Second Written Questions and further comments</a>
REP6-028	<a href="#">Wokingham Borough Council - Comments on Responses to ExA's Second Written Questions</a>
<b>Deadline VII – 17 February 2016</b>	

- Written summaries of oral submissions put at hearings held in w/c 8 February 2015
- Comments on any further information requested by the ExA and received to Deadline VI
- Any further information requested by the ExA under Rule 17 of the Exam Rules

### **Applicant Submissions**

REP7-001	<u>Highways England - Covering letter and index of submissions provided to Deadline VII</u>
REP7-002	<u>Highways England - Deadline VII Index of Documents</u>
REP7-003	<u>Highways England - Updated Application Document List (Deadline VII)</u>
REP7-004	<u>Highways England - Revised Environmental Masterplan</u>
REP7-005	NOT IN USE
REP7-006	<u>Highways England - Update on CCTV Provision (February 2016)</u>
REP7-007	<u>Highways England - Revised CTMP (February 2016)</u>
REP7-008	<u>Highways England – Response to TAME Review of LMVR for M3 M4 Model</u>
REP7-009	<u>Highways England - CCTV Note Appendix 1: CCTV Environmental Assessment</u>
REP7-010	<u>Highways England - Updated Table of Mitigation (February 2016)</u>
REP7-011	<u>Highways England – TAME ACO Review of LMVR Report for M3 M4 Model</u>
REP7-012	<u>Highways England - Revised CEMP (February 2016)</u>
REP7-013	<u>Highways England - ES Appendix 8.4: Retained existing vegetation</u>
REP7-014	<u>Highways England – Flood Risk Assessment (Final) Annex B: HADDMS Register</u>
REP7-015	<u>Highways England - Written submission to compulsory acquisition hearing on Friday 12 February 2016 and further information comprising Transfer Scheme, provided to Deadline VII</u>
REP7-016	<u>Highways England - Written submission to issue specific hearing dealing with matters relating to the environment in February 2016, comprising letter from South East Water to Highways England</u>
REP7-017	<u>Highways England - ISH Summary - Environment - Noise</u>

REP7-018	<a href="#">Highways England - ISH Summary - Environment - Traffic Safety</a>
REP7-019	<a href="#">Highways England - ISH Summary - Environment - Air Quality</a>
REP7-020	<a href="#">Highways England - ISH Summary - Environment - Landscape and Heritage</a>
REP7-021	<a href="#">Highways England - ISH Summary - Environment - Water</a>
REP7-022	<a href="#">Highways England - ISH Summary - Environment - Other Matters</a>
REP7-023	<a href="#">Highways England - ISH Summary - Compulsory Acquisition</a>
REP7-024	<a href="#">Highways England - ISH Summary - Environment - Air Quality - Appendix A - Interim Advice Note 185</a>
REP7-025	<a href="#">Highways England - ISH Summary - Environment - Air Quality - Appendix B - Note on agreed position</a>
REP7-026	<a href="#">Highways England - ISH Summary - Environment - Air Quality - Appendix C - Note on LTTE6</a>
REP7-027	<a href="#">Highways England - ISH Summary - Environment - Air Quality - Appendix D - Speed Banding Risk View</a>
REP7-028	<a href="#">Highways England - ISH Summary - Environment - Air Quality - Appendix E - IAN 170 12 NO<sub>x</sub> and NO<sub>2</sub></a>
REP7-029	<a href="#">Highways England - Revised Enhanced Noise Mitigation Study (February 2016)</a>
REP7-030	<a href="#">Highways England - ISH Summary - Environment - Noise - Appendix A - Note on varying noise reduction</a>
REP7-031	<a href="#">Highways England - ISH Summary - Environment - Noise - Appendix B - Photo of noise fence holding down bolts</a>
REP7-032	<a href="#">Highways England - ISH Summary - DCO Appendix A: Table Outlining Securing of Mitigation</a>
REP7-033	<a href="#">Highways England - ISH Summary - Environment - Water - Appendix A 6 Month Review Report</a>
REP7-034	<a href="#">Highways England - ISH Summary - Environment - Traffic Forecasting Addendum - Appendix A - M3M4 Demand model report AECOM October 2011</a>
REP7-035	<a href="#">Highways England - ISH Summary - Environment - Traffic Forecasting Addendum - Appendix B - TRADS &amp; Model comparisons 2000 &amp; 2012</a>

REP7-036	<a href="#">Highways England – ISH Summary - Environment - Traffic Safety - Appendix A - Highways England evidence to the transport select committee</a>
REP7-037	<a href="#">Highways England – ISH Summary - Environment - Landscape and Heritage - Appendix A - Plan showing locations of 15m lighting columns</a>
REP7-038	<a href="#">Highways England - ISH Summary - DCO</a>
REP7-039	<a href="#">Highways England - ISH Summary - Environment - Traffic Forecasting</a>
REP7-040	<a href="#">Highways England - ISH Summary - Environment - Traffic Forecasting Addendum</a>
REP7-041	<a href="#">Highways England - Environmental Masterplan Sheet 01 of 31</a>
REP7-042	<a href="#">Highways England - Environmental Masterplan Sheet 02 of 31</a>
REP7-043	<a href="#">Highways England - Environmental Masterplan Sheet 03 of 31</a>
REP7-044	<a href="#">Highways England - Environmental Masterplan Sheet 04 of 31</a>
REP7-045	<a href="#">Highways England - Environmental Masterplan Sheet 05 of 31</a>
REP7-046	<a href="#">Highways England - Environmental Masterplan Sheet 06 of 31</a>
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REP7-054	<a href="#">Highways England - Environmental Masterplan Sheet 14 of 31</a>
REP7-055	<a href="#">Highways England - Environmental Masterplan Sheet 15 of 31</a>
REP7-056	<a href="#">Highways England - Environmental Masterplan Sheet 16 of 31</a>
REP7-057	<a href="#">Highways England - Environmental Masterplan Sheet 17 of 31</a>
REP7-058	<a href="#">Highways England - Environmental Masterplan Sheet 18 of 31</a>

REP7-059	<a href="#">Highways England - Environmental Masterplan Sheet 19 of 31</a>
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REP7-064	<a href="#">Highways England - Environmental Masterplan Sheet 24 of 31</a>
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REP7-070	<a href="#">Highways England - Environmental Masterplan Sheet 30 of 31</a>
REP7-071	<a href="#">Highways England - Environmental Masterplan Sheet 31 of 31</a>
REP7-072	<a href="#">Highways England - Drawing 2 Enhanced Noise Mitigation Details 1</a>
REP7-073	<a href="#">Highways England - Drawing 2 Enhanced Noise Mitigation Details 2</a>
REP7-074	<a href="#">Highways England - Drawing 2 Enhanced Noise Mitigation Details 3</a>
REP7-075	<a href="#">Highways England - Drawing 2 Enhanced Noise Mitigation Details 4</a>
REP7-076	<a href="#">Highways England - Drawing 2 Enhanced Noise Mitigation Details 5</a>
REP7-077	<a href="#">Highways England - Drawing 2 Enhanced Noise Mitigation Details 6</a>
REP7-078	<a href="#">Highways England - Drawing 2 Enhanced Noise Mitigation Details 7</a>
REP7-079	<a href="#">Highways England - Drawing 2 Enhanced Noise Mitigation Details 8</a>
REP7-080	<a href="#">Highways England - Drawing 2 Enhanced Noise Mitigation Details 9</a>
REP7-081	<a href="#">Highways England - Drawing 2 Enhanced Noise Mitigation Details 10</a>
REP7-082	<a href="#">Highways England - Drawing 2 Enhanced Noise Mitigation Details 11</a>
REP7-083	<a href="#">Highways England - Drawing 2 Enhanced Noise Mitigation Details 12</a>



REP7-084	<a href="#">Highways England - Drawing 2 Enhanced Noise Mitigation Details 13 Revised</a>
REP7-085	<a href="#">Highways England - Drawing 2 Enhanced Noise Mitigation Details 14</a>
REP7-086	<a href="#">Highways England - Drawing 2 Enhanced Noise Mitigation Details 15 Revised</a>
REP7-087	<a href="#">Highways England - Drawing 2 Enhanced Noise Mitigation Details Key Plan</a>
REP7-088	<a href="#">Highways England - Drawing 3 - Enhanced Noise Mitigation Key Plan</a>
REP7-089	<a href="#">Highways England - Drawing 3 - Enhanced Noise Mitigation 12.1</a>
REP7-090	<a href="#">Highways England - Drawing 3 - Enhanced Noise Mitigation 12.2</a>
REP7-091	<a href="#">Highways England - Drawing 3 - Enhanced Noise Mitigation 12.3</a>
REP7-092	<a href="#">Highways England - Drawing 3 - Enhanced Noise Mitigation 12.4</a>
REP7-093	<a href="#">Highways England - Drawing 3 - Enhanced Noise Mitigation 12.5</a>
REP7-094	<a href="#">Highways England - Drawing 3 - Enhanced Noise Mitigation 12.6</a>
REP7-095	<a href="#">Highways England - Drawing 3 - Enhanced Noise Mitigation 12.7</a>
REP7-096	<a href="#">Highways England - Drawing 3 - Enhanced Noise Mitigation 12.8</a>
REP7-097	<a href="#">Highways England - Drawing 3 - Enhanced Noise Mitigation 12.9</a>
REP7-098	<a href="#">Highways England - Drawing 3 - Enhanced Noise Mitigation 12.10</a>
REP7-099	<a href="#">Highways England - Drawing 3 - Enhanced Noise Mitigation 12.11</a>
REP7-100	<a href="#">Highways England - Drawing 3 - Enhanced Noise Mitigation 12.12</a>
REP7-101	<a href="#">Highways England - Drawing 3 - Enhanced Noise Mitigation 12.13</a>
REP7-102	<a href="#">Highways England - Drawing 3 - Enhanced Noise Mitigation 12.14</a>
REP7-103	<a href="#">Highways England - Drawing 3 - Enhanced Noise Mitigation 12.15</a>
REP7-104	<a href="#">Highways England - Drawing 1 Night Time SOAEL Contour Keyplan</a>
REP7-105	<a href="#">Highways England - Drawing 1 Night Time SOAEL Contour 12.1</a>
REP7-106	<a href="#">Highways England - Drawing 1 Night Time SOAEL Contour 12.2</a>
REP7-107	<a href="#">Highways England - Drawing 1 Night Time SOAEL Contour 12.3</a>

REP7-108	<a href="#">Highways England - Drawing 1 Night Time SOAEL Contour 12.4</a>
REP7-109	<a href="#">Highways England - Drawing 1 Night Time SOAEL Contour 12.5</a>
REP7-110	<a href="#">Highways England - Drawing 1 Night Time SOAEL Contour 12.6</a>
REP7-111	<a href="#">Highways England - Drawing 1 Night Time SOAEL Contour 12.7</a>
REP7-112	<a href="#">Highways England - Drawing 1 Night Time SOAEL Contour 12.8</a>
REP7-113	<a href="#">Highways England - Drawing 1 Night Time SOAEL Contour 12.9</a>
REP7-114	<a href="#">Highways England - Drawing 1 Night Time SOAEL Contour 12.10</a>
REP7-115	<a href="#">Highways England - Drawing 1 Night Time SOAEL Contour 12.11</a>
REP7-116	<a href="#">Highways England - Drawing 1 Night Time SOAEL Contour 12.12</a>
REP7-117	<a href="#">Highways England - Drawing 1 Night Time SOAEL Contour 12.13</a>
REP7-118	<a href="#">Highways England - Drawing 1 Night Time SOAEL Contour 12.14</a>
REP7-119	<a href="#">Highways England - Drawing 1 Night Time SOAEL Contour 12.15</a>
REP7-120	<a href="#">Highways England - Works Plans Key Plan</a>
REP7-121	<a href="#">Highways England - Works Plans Sheet 1 of 31</a>
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REP7-144	<a href="#">Highways England - Works Plans Sheet 24 of 31</a>
REP7-145	<a href="#">Highways England - Works Plans Sheet 25 of 31</a>
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REP7-149	<a href="#">Highways England - Works Plans Sheet 29 of 31</a>
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REP7-151	<a href="#">Highways England - Works Plans Sheet 31 of 31</a>
REP7-152	<a href="#">Highways England - Flood Risk Assessment (Final)</a>
REP7-153	<a href="#">Highways England – Flood Risk Assessment (Final) Annex C: Flooding From Reservoirs</a>
REP7-154	<a href="#">Highways England – Flood Risk Assessment (Final) Annex A: Flood Maps</a>
REP7-155	<a href="#">Highways England – Flood Risk Assessment (Final) Annex D: Flood Compensation Analysis Spreadsheets</a>
REP7-156	<a href="#">Highways England – Flood Risk Assessment (Final) Annex E: Cross Section and Long Section Drawings</a>

REP7-157	<u>Highways England – Flood Risk Assessment (Final) Annex F: Maps Showing Compensation Areas</u>
REP7-158	<u>Highways England – Flood Risk Assessment (Final) Annex G: Flood Risk Drawings</u>
REP7-159	<u>Highways England – Flood Risk Assessment (Final) Annex H: Works Plan With Compensation Data</u>
REP7-160	<u>Highways England - Response to written submission - David Green</u>
REP7-161	<u>Highways England - Response to written submission – Dr Norman Jorgensen</u>
REP7-162	<u>Highways England - Response to written submission – J A Harris</u>
REP7-163	<u>Highways England - Response to written submission - Cllr Gary Cowan</u>
REP7-164	<u>Highways England - Response to written submission - Hayes Community Development Forum</u>
REP7-165	<u>Highways England - Response to written submission - Mike Heard</u>
REP7-166	<u>Highways England - Response to written submission - Tim Holton</u>
REP7-167	<u>Highways England - Response to written submission - Campaign for Better Transport</u>
REP7-168	<u>Highways England - Response to written submission - London Borough of Hillingdon</u>
REP7-169	<u>Highways England - Response to written submission - Buckinghamshire Gardens Trust</u>
REP7-170	<u>Highways England - Response to written submission - Environment Agency</u>
<b>Written summaries of oral submissions put by other interested parties at hearings held in w/c 8 February 2016 and other documents</b>	
REP7-171	NOT IN USE
REP7-172	<u>Jan Heard on behalf of the Mid and West Berks Local Access Forum - Written submission of representations not made orally at February 2016 hearings</u>
REP7-173	<u>Environment Agency - Further information comprising proposed amendments to draft DCO</u>
REP7-174	<u>Wokingham Borough Council - Written submission of representations not</u>

	<u>made orally at February 2016 hearings</u>
REP7-175	<u>Slough Borough Council - Written summary of oral submissions put at February 2016 issues specific hearings and further information</u>
REP7-176	<u>Campaign for Better Transport - Written submission of representations not made orally at February 2016 hearings</u>
REP7-177	<u>Beverly Hakesley - Written summary of oral submissions put at compulsory acquisition hearing on Friday 12 February 2016 and further information</u>
REP7-178	<u>Thames Water - Written submission to compulsory acquisition hearing on Friday 12 February 2016 and further information provided to Deadline VII</u>
REP7-179	<u>Dr Norman Jorgensen - Written summary of oral submissions put at February 2016 issues specific hearings</u>
REP7-180	<u>Buckinghamshire County Council - Written summary of oral submissions put at February 2016 issues specific hearings and further information</u>
REP7-181	<u>South East Water - Further information comprising written response to question F.2.v in the agenda for issue specific hearing dealing with matters relating to the environment</u>
REP7-182	<u>Jeannine Cooper - Written submission of representations not made orally at February 2016 hearings</u>
REP7-183	<u>David Long - Submission made to Deadline VII following oral representations made at issue specific hearing dealing with matters relating to the environment on Wednesday 10 February 2016</u>
REP7-184	<u>Slough Borough Council - Further information comprising written response to question C.4 in the agenda for issue specific hearing dealing with matters relating to the environment</u>
REP7-185	<u>South Bucks District Council - Written summary of oral submissions put at February 2016 issues specific hearings</u>
REP7-186	<u>Reading Friends of the Earth - Written summary of oral submissions put at February 2016 issues specific hearings and further information</u>
REP7-187	<u>Buckinghamshire County Council - Further information comprising proposed amendments to draft DCO</u>
REP7-188	<u>London Borough of Hillingdon - Written summary of oral submissions put at February 2016 issues specific hearings</u>
REP7-189	<u>Friends of the Earth England Wales and Northern Ireland - Written summary of oral submissions put at February 2016 issue</u>

	<u>hearings</u>
REP7-190	<u>Environment Agency - Written summaries of oral submissions presented at issue specific hearings on 10, 11 and 12 February 2016</u>
REP7-191	<u>Wokingham Liberal Democrats - Written summary of oral submissions put at February 2016 issues specific hearings</u>
REP7-192	<u>Buckinghamshire County Council - Further information comprising comments in respect of cumulative impacts</u>
<p><b>Deadline VIII – 29 February 2016</b></p> <ul style="list-style-type: none"> <li>• Comments on ExA’s draft DCO</li> <li>• Comments on any further information requested by the ExA and received to Deadline VII</li> <li>• Any further information requested by the ExA under Rule 17 of the Exam Rules</li> <li>• Responses to request for further information dated 24 February 2016</li> </ul>	
<p><b>Applicant Submissions</b></p>	
REP8-001	<u>Highways England - Deadline VIII - Index of Documents</u>
REP8-002	<u>Highways England - Covering letter and index of submissions provided to Deadline VIII</u>
REP8-003	<u>Highways England - Comments on the Summary of Oral Submissions submitted by Buckinghamshire County Council</u>
REP8-004	<u>Highways England - Statement of Common Ground between Highways England and Slough Borough Council</u>
REP8-005	<u>Highways England – Comments on ExA draft DCO</u>
REP8-006	<u>Highways England – Comments on ExA draft DCO - Appendix A - SEW Protective Provisions</u>
REP8-007	<u>Highways England – Comments on ExA draft DCO - Appendix B - Environment Agency Protective Provisions</u>
REP8-008	<u>Highways England - Revised CEMP (clean)</u>
REP8-009	<u>Highways England - Revised CEMP (track changes)</u>
REP8-010	<u>Highways England - Revised CTMP (clean)</u>
REP8-011	<u>Highways England - Revised CTMP (track changes)</u>
REP8-012	<u>Highways England - Response to Examining Authority’s Proposed Traffic Modelling and Mitigation Requirement - Appendix A - Minutes of</u>

	<u>with Buckinghamshire County Council</u>
REP8-013	<u>Highways England - Response to Examining Authority's Proposed Traffic Modelling and Mitigation Requirement</u>
REP8-014	<u>Highways England -Enhanced Noise Mitigation Study 29-2-16 REVISED2</u>
REP8-015	<u>Highways England - Updated Application Document List - as at 29 February 2016</u>
REP8-016	<u>Highways England - Further Information in Respect of Cumulative Impacts submitted by Buckinghamshire County Council at Deadline VII</u>
REP8-017	<u>Highways England - Comments on written submission by Beverly Hakesley</u>
REP8-018	<u>Highways England - Comments on written submission by Beverly Hakesley at Deadline VII - Appendix A</u>
REP8-019	<u>Highways England - Comments on written submission by the Campaign for Better Transport</u>
REP8-020	<u>Highways England - Comments on written submission by David Long</u>
REP8-021	<u>Highways England - Comments on written submission by the Environment Agency</u>
REP8-022	<u>Highways England - Comments on written submission by Friends of the Earth</u>
REP8-023	<u>Highways England - Comments on written submission by J A Harris</u>
REP8-024	NOT IN USE
REP8-025	<u>Highways England - Comments on written submission by Jeannine Cooper</u>
REP8-026	<u>Highways England - Comments on written submission by the London Borough of Hillingdon</u>
REP8-027	<u>Highways England - Comments on written submission by the Mid and West Berkshire Local Access Forum</u>
REP8-028	<u>Highways England - Comments on written submission by Dr Norman Jorgensen</u>
REP8-029	<u>Highways England - Comments on written submission by Reading Friends of the Earth</u>
REP8-030	<u>Highways England - Comments on written submission by South Bucks</u>

	<u>District Council</u>
REP8-031	<u>Highways England - Comments on written submission by South East Water</u>
REP8-032	<u>Highways England - Comments on written submission by Slough Borough Council</u>
REP8-033	<u>Highways England - Comments on the response to question 4.9.9 submitted by Slough Borough Council</u>
REP8-034	<u>Highways England - Comments on written submission by Wokingham Borough Council</u>
REP8-035	<u>Highways England - Comments on written submission by Wokingham Borough Council – Appendix A</u>
REP8-036	<u>Highways England - Comments on written submission by Clive Jones for Wokingham Liberal Democrats</u>
REP8-037	<u>Highways England - Response to Deadline VII Representation - Clive Jones</u>
REP8-038	<u>Highways England - Response to Deadline VII Representation - Jan Heard</u>
REP8-039	<u>Highways England - Drawing 1 Night Time SOAEL Contour Keyplan</u>
REP8-040	<u>Highways England - Drawing 1 Night Time SOAEL Contour 12.1</u>
REP8-041	<u>Highways England - Drawing 1 Night Time SOAEL Contour 12.2</u>
REP8-042	<u>Highways England - Drawing 1 Night Time SOAEL Contour 12.3</u>
REP8-043	<u>Highways England - Drawing 1 Night Time SOAEL Contour 12.4</u>
REP8-044	<u>Highways England - Drawing 1 Night Time SOAEL Contour 12.5</u>
REP8-045	<u>Highways England - Drawing 1 Night Time SOAEL Contour 12.6</u>
REP8-046	<u>Highways England - Drawing 1 Night Time SOAEL Contour 12.7</u>
REP8-047	<u>Highways England - Drawing 1 Night Time SOAEL Contour 12.8</u>
REP8-048	<u>Highways England - Drawing 1 Night Time SOAEL Contour 12.9</u>
REP8-049	<u>Highways England - Drawing 1 Night Time SOAEL Contour 12.10</u>
REP8-050	<u>Highways England - Drawing 1 Night Time SOAEL Contour 12.11</u>



REP8-051	<a href="#">Highways England - Drawing 1 Night Time SOAEL Contour 12.12</a>
REP8-052	<a href="#">Highways England - Drawing 1 Night Time SOAEL Contour 12.13</a>
REP8-053	<a href="#">Highways England - Drawing 1 Night Time SOAEL Contour 12.14</a>
REP8-054	<a href="#">Highways England - Drawing 1 Night Time SOAEL Contour 12.15</a>
REP8-055	<a href="#">Highways England - Drawing 2 Enhanced Noise Mitigation Details Key Plan</a>
REP8-056	<a href="#">Highways England - Drawing 2 Enhanced Noise Mitigation Details 1</a>
REP8-057	<a href="#">Highways England - Drawing 2 Enhanced Noise Mitigation Details 2</a>
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REP8-122	<u>London Borough of Hillingdon - Comments on Examining Authority's Draft DCO and other comments</u>
REP8-123	<u>Network Rail Infrastructure Ltd - Comments on the Examining Authority's Draft Development Consent Order and other comments</u>
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REP8-127	<u>Dave Green - Response to the Examining Authority's request for further information dated 24 February 2016</u>
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REP9-002	<u>Highways England - Revised CEMP (Clean) March 2016</u>
REP9-003	<u>Highways England - Revised CEMP (Track Change) March 2016</u>
REP9-004	<u>Highways England - Final Draft DCO (Clean Version)</u>
REP9-005	<u>Highways England - Final Draft DCO (Track Change)</u>
REP9-006	<u>Highways England – South East Water Statement of Common Ground</u>

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REP9-015	<u>Highways England - Response to Deadline VIII by London Borough of Hillingdon</u>
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REP9-022	<u>Highways England - SSE Correspondence 02 - SSE Mapping Services Secure Web Site New User Details</u>
REP9-023	<u>Highways England - SSE Correspondence 03 - Public Information Exhibitions Letter</u>
REP9-024	<u>Highways England - SSE Correspondence 04 - Land Interest</u>

	<u>Questionnaire</u>
REP9-025	<u>Highways England - SSE Correspondence 05 - S42 Reg 3 Notice</u>
REP9-026	<u>Highways England - SSE Correspondence 06 - S42 Reg 11 Notice</u>
REP9-027	<u>Highways England - SSE Correspondence 07 - S47 notice</u>
REP9-028	<u>Highways England - SSE Correspondence 08 - Land Interest Confirmation</u>
REP9-029	<u>Highways England - SSE Correspondence 08a - Land Own Conf Response</u>
REP9-030	<u>Highways England - SSE Correspondence 09 - Clarification of buried services</u>
REP9-031	<u>Highways England - SSE Correspondence 10 - Buried services discussion</u>
REP9-032	<u>Highways England - SSE Correspondence 11 - Buried services discussion</u>
REP9-033	<u>Highways England - SSE Correspondence 12 - S56 plus drawings</u>
REP9-034	<u>Highways England - SSE Correspondence 13 - S56</u>
REP9-035	<u>Highways England - SSE Correspondence 14 - DVS</u>
REP9-036	<u>Highways England - SSE Correspondence 15 - Email re pp fees</u>
REP9-037	<u>Highways England - SSE Correspondence 16 - DVS2</u>
REP9-038	<u>Highways England - Signed Statement of Common Ground between Highways England and South East Water Limited - Appendix A - Borehole Map</u>
REP9-039	<u>Highways England - Signed Statement of Common Ground between Highways England and South East Water Limited</u>
REP9-040	<u>Highways England - Updated Application Document List showing latest version dates</u>
REP9-041	<u>Highways England - Response to written submission by Slough Borough Council</u>
REP9-042	<u>Highways England - Position Paper on Statements of Common Ground</u>
<b>Responses by interested parties to request for further information dated 22 February 2016 and other documents</b>	
REP9-043	<u>Department for Transport - Response to Rule 17 letter of 22 February</u>

	<u>2016</u>
REP9-044	<u>Environment Agency – Response to Highways England submission to Deadline IX</u>
REP9-045	<u>London Borough of Hillingdon – Update on position with Statement of Common Ground</u>
REP9-046	<u>Slough Borough Council – Response to Highways England submissions to Deadline VIII</u>
REP9-047	<u>Clive Jones on behalf of Wokingham Liberal Democrats</u>
REP9-048	<u>Lisa Tye for Shoosmiths LLP on behalf of Anita Thomas and Siobhan McElhinney</u>
<b>OTHER DOCUMENTS</b>	
OD-001	<u>Applicant response to request for consultation responses</u>
OD-002	<u>Applicant's certificates of compliance with s56 and s59 of the Planning Act 2008</u>
OD-003	<u>Transboundary Screening Matrix</u>
OD-004	<u>Transboundary Screening Matrix</u>
OD-005	<u>Highways England -Notification notice for the November 2015 hearings</u>

## Appendix C: List of Abbreviations

Abbreviation or usage	Reference
AADT	Annual Average Daily Traffic
ACO	Appraisal Certifying Officer
AEP	Annual Exceedance Probability
AIES	Assessment of Implications on European Sites
ALR	All Lane Running
AMOR	Asset Maintenance and Operational Requirements
AONB	Area of Outstanding Natural Beauty
APs	Affected Persons
AQ	Air Quality
AQAP	Air Quality Action Plan
AQD	Air Quality Directive
AQMAs	Air Quality Management Areas
AQMPs	Air Quality Management Plans
AQS	Air Quality Standards Regulations 2010
AS	Additional Submission
ASI	Accompanied Site Inspection
ASUK	The Animal Sanctuary UK
AURN	Automatic Urban and Rural Network
BCC	Buckinghamshire County Council
BFC	Bracknell Forest Council
BH	Bovis Homes
BoR	Book of Reference
BP	BP Oil UK Limited



Abbreviation or usage	Reference
CA	Compulsory Acquisition
CAH	Compulsory Acquisition Hearing
CBT	Campaign for Better Transport
CCs	Construction Compounds
CDE	Construction Demolition Excavation
CEMEX	CEMEX UK Operations Limited
CEMP	Construction Environmental Management Plan
CO <sub>2</sub>	Carbon dioxide
COMEAP	Committee on the Medical Effects of Air Pollution
CRWA	Countryside and Rights of Way Act 2000
CTMP	Construction Traffic Management Plan
DCLG	Department for Communities and Local Government
DCO	Development Consent Order
Defra	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges
DSR	Drainage Strategy Report
DVHMC	The Dorney Village Hall Management Committee
EA	Environment Agency
EDR	Engineering and Design Report
EEA	European Economic Area
EFT	Emission Factor Toolkit
EIA	Environmental Impact Assessment
EM	Explanatory Memorandum

Abbreviation or usage	Reference
EMP	Environmental Management Plan
ENMS	Enhanced Noise Mitigation Study
EPR	Environmental Permitting Regulations
EPS	European Protected Species
EPUK	Environmental Protection UK
ERAs	Emergency Refuge Areas
ES	Environmental Statement
ETC	Earley Town Council
EU	European Union
Euro 6/VI	European diesel vehicle emissions standards September 2015
ExA	Examining Authority
FoE	Friends of the Earth
FRA	Flood Risk Assessment
FWQs	First written questions - issued by the Examining Authority
GCL	Goodman Colnbrook (Jersey) Limited
GLA	Greater London Authority
GLVIA	Guidelines for Landscape and Visual Impact Assessment
HAL	Heathrow Airport Limited
HAWRAT	Highways Agency Water Risk Assessment Tool
HDV	Heavy Duty Vehicle
HE	Highways England – the Applicant
HEMP	Handover Environmental Management Plan
HEX	Heathrow Express

Abbreviation or usage	Reference
HGV	Heavy Goods Vehicle
HIA	Health Impact Assessment
HRA	Habitat Regulations Assessment
HS2	High Speed 2
HSI	Habitat Suitability Index
HSR	Hard Shoulder Running
HyRA	Hydrological Risk Assessment
IA	Infrastructure Act
IAN	Interim Advice Note - produced by Highways England or its predecessor, the Highways Agency
IAQM	Institute of Air Quality Management
IA2015	Infrastructure Act 2015
ICCT	International Council on Clean Transportation
IEEM	Institute of Ecology and Environmental Management
ILP	Institution of Lighting Professionals
IPs	Interested Parties
IPDR	Infrastructure Planning Decisions Regulation
IPR	Infrastructure Planning Rules
ISGL	Iris Software Group Limited
ISHs	Issue Specific Hearings
ITS	Intelligent Transport System
GEH	Geoffrey E. Havers
LAQM	Local Air Quality Management
LATS	London Area Traffic Surveys
LBHill	London Borough of Hillingdon

Abbreviation or usage	Reference
LBHo	London Borough of Hounslow
LCA	Landscape Character Area
LED	Light Emitting Diode
LIR	Local Impact Report
LMVR	Local Model Validation Report
LNR	Local Nature Reserve
LOAEL	Lowest Observable Adverse Effect Level
LPA	Local Planning Authority
LRN	Local Road Network
LTT	Long Term Trend
LTP3	Third Local Transport Plan
LVIA	Landscape Visual Impact Assessment
LWS	Local Wildlife Sites
M4SM	M4 Smart Motorway - the proposed scheme
MHL	Moto Hospitality Limited
MIDAS	Motorway Incident Detection and Automatic Signalling
MMP	Materials Management Plan
MSA	Motorway Service Area
NATS	National Air Transport Services
NCA	National Character Area
NCN4	National Cycle Network Route 4
NCN61	National Cycle Network Route 61
NE	Natural England
NERCA	Natural Environment and Rural Communities Act 2006

Abbreviation or usage	Reference
NFER	National Federation for Educational Research
NIP	National Infrastructure Plan
NMU	Non-Motorised Users
NO <sub>2</sub>	Nitrogen dioxide
NO <sub>x</sub>	Mono-nitrogen oxides and nitrogen dioxide
NOEL	No Observed Effect Level
NPACA	National Parks and Access to the Countryside Act 1949
NPPF	National Planning Policy Framework
NPPG	National Planning Practice Guidance
NPS	National Policy Statement
NPSE	Noise Policy Statement for England
NPSNN	National Policy Statement for National Networks
NRI	Network Rail Infrastructure
NSIP	Nationally Significant Infrastructure Project
OD	Other Documents
ODBF	The Oxford Diocesan Board of Finance
OFHs	Open Floor Hearings
PD	Project Document
PH	Persimmon Homes
PHE	Public Health England
PM	Preliminary Meeting
PM <sub>2.5</sub>	Particulate matter up to 2.5 micrometres in size
PM <sub>10</sub>	Particulate matter up to 10 micrometres in size
POPs	Police Observation Platforms

Abbreviation or usage	Reference
PPGs	Pollution Prevention Guidelines
PRoW	Public Rights of Way
RAC	Royal Automobile Club
RBC	Reading Borough Council
RBS	Royal Bank of Scotland
RBWM	Royal Borough of Windsor and Maidenhead
RDE	Real World Driving Emissions
RIS	Road investment strategy for the 2015 to 2020 road period
RPA	Root Protection Areas
RPNL	Railway Pension Nominees Limited
RR	Relevant Representations
SAC	Special Area of Conservation
SAM	Scheduled Ancient Monument
SBC	Slough Borough Council
SBDC	South Bucks District Council
SER	Socio-Economic Report
SERR	Shinfield Eastern Relief Road
SEW	South East Water
SHLAA	Suitable Housing Land Availability Assessment
SINC	Sites of Importance for Nature Conservation
SMP	Slough Motocross Parc
SOAEL	Significant Observed Adverse Effect Level
SoCG	Statement of Common Ground
SoR	Statement of Reasons

Abbreviation or usage	Reference
SoS	Secretary of State
SoSCLG	Secretary of State for Communities and Local Government
SPA	Special Protection Area
SPCL	Stockley Park Consortium Limited
SPD	Supplementary Planning Document
SPZ	Source Protection Zones
SRFI	Strategic Rail Freight Interchange
SRN	Strategic Road Network
SSSI	Site of Special Scientific Interest
SU	Statutory undertaker
SuDS	Sustainable drainage systems
SWMP	Site Waste Management Plan
SWQs	Second round written questions - issued by the Examining Authority
TAG	Traffic Analysis Guidance
TAME	Traffic Appraisal Modelling and Economics
TfL	Transport for London
TJR	Through Junction Running
Thames RBD	Thames River Basin District
Thames RBMP	Thames River Basin Management Plan
TMWG	Traffic Management Working Group
ToM	Table of Mitigation
TPO	Tree Preservation Order
TSC	Transport Select Committee

Abbreviation or usage	Reference
TSCS	Thin Surface Course System
TVMMS	Thames Valley Multi Modal Study
UKCP09	UK Climate Projections 2009
USI	Unaccompanied Site Inspection
WBC	Wokingham Borough Council
WBDC	West Berkshire District Council
WCA	Wildlife and Countryside Act 1981 (as amended)
WFD	Water Framework Directive - Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy
WFDCA	Water Framework Directive Compliance Assessment
WLD	Wokingham Liberal Democrats
WRLTH	Western Rail Link to Heathrow
WRs	Written Representations
WTC	Wokingham Town Council
ZVI	Zone of Visual Influence



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STATUTORY INSTRUMENTS

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201[\*] No. [\*\*\*\*]

**INFRASTRUCTURE PLANNING**

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

*Made* - - - - [\*\*\*]  
*Laid before Parliament* [\*\*\*]  
*Coming into force* - - [\*\*\*]

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An application has been made to the Secretary of State, under section 37 of the Planning Act 2008<sup>(a)</sup> in accordance with the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009<sup>(b)</sup> for an Order granting development consent.

The application is for development which constitutes a nationally significant infrastructure project within sections 14(1)(h) and 22 of the Planning Act 2008, being the alteration and improvement of a highway which is wholly within England, in relation to which the Secretary of State is the highway authority, and the area of development of which is greater than 15 hectares.

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<sup>(a)</sup> 2008 c. 29.

<sup>(b)</sup> S.I. 2009/2264 as amended by S.I. 2010/602, S.I. 2012/635, S.I. 2012/2654, S.I. 2012/2732, S.I. 2013/522 and S.I. 2013/755.

[The application was examined by a Panel (appointed by the Secretary of State) under Chapter 3 of Part 6 of the Planning Act 2008, and the Infrastructure Planning (Examination Procedure) Rules 2010(a).]

[The Panel, having considered the representations made and not withdrawn and the application together with the accompanying documents, in accordance with section 83(1) of the Planning Act 2008, has submitted a report to the Secretary of State.]

[The Secretary of State, having considered the representations made and not withdrawn, and the report of the Panel, has decided to make an Order granting development consent for the development described in the application with modifications which in the opinion of the Secretary of State do not make any substantial changes to the proposals comprised in the application.]

[The Secretary of State has considered the effect of the following Order upon land which is open space in accordance with section 131 of the Planning Act 2008 and is satisfied that subsection (4B) of that section applies to such land.]

[The Secretary of State has considered the effect of the following Order upon land which is common land in plot 20-03 identified in the book of reference and on the land plans in accordance with section 131 of the Planning Act 2008 and is satisfied that subsection (5) of that section applies to such land.]

The Secretary of State, in exercise of the powers conferred by sections 114, 115, 117, 120 and 122 of, and paragraphs 1 to 3, 10 to 17, 24, 26, 36 and 37 of Part 1 of Schedule 5 to, the Planning Act 2008, makes the following Order:

## PART 1

### PRELIMINARY

#### **Citation and commencement**

1. This Order may be cited as The M4 Motorway (Junctions 3 to 12) (Smart Motorway) Development Consent Order 201[\*] and comes into force on [\*\*\*\*] 201[\*].

#### **Interpretation**

2.—(1) In this Order—

“the 1961 Act” means the Land Compensation Act 1961(b);

“the 1965 Act” means the Compulsory Purchase Act 1965(c);

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(a) 2010 c.

(b) 1961 c. 33. Section 2(2) was amended by section 193 of, and paragraph 5 of Schedule 33 to, the Local Government Planning and Land Act 1990 (c. 65). There are other amendments to the 1961 Act which are not relevant to this Order.

(c) 1965 c. 56. Section 3 was amended by section 70 of, and paragraph 3 of Schedule 15 to, the Planning and Compensation Act 1991 (c. 34). Section 4 was amended by section 3 of, and Part 1 of Schedule 1 to, the Housing (Consequential Provisions) Act 1985 (c. 71). Section 5 was amended by sections 67 and 80 of, and Part 2 of Schedule 18 to, the Planning and Compensation Act 1991 (c. 34). Subsection (1) of section 11 and sections 3, 31 and 32 were amended by section 34(1) of, and Schedule 4 to, the Acquisition of Land Act 1981 (c. 67) and by section 14 of, and paragraph 12(1) of Schedule 5 to, the Church of England (Miscellaneous Provisions) Measure 2006 (2006 No. 1). Section 12 was amended by section 56(2) of, and Part 1 to Schedule 9 to, the Courts Act 1971 (c. 23). Section 13 was amended by section 139 of the Tribunals Courts and Enforcement Act 2007 (c. 15). Section 20 was amended by section 70 of, and paragraph 14 of Schedule 15 to, the Planning and Compensation Act 1991 (c. 34). Sections 9, 25 and 29 were amended by the Statute Law (Repeals) Act 1973 (c. 39). Section 31 was also amended by section 70 of, and paragraph 19 of Schedule 15 to, the Planning and Compensation Act 1991 (c. 34) and by section 14 of, and paragraph 12(2) of Schedule 5 to, the Church of England

“the 1980 Act” means the Highways Act 1980(a);

“the 1981 Act” means the Compulsory Purchase (Vesting Declarations) Act 1981(b);

“the 1984 Act” means the Road Traffic Regulation Act 1984(c);

“the 1990 Act” means the Town and Country Planning Act 1990(d);

“the 1991 Act” means the New Roads and Street Works Act 1991(e);

“the 2008 Act” means the Planning Act 2008(f);

“address” includes any number or address for the purposes of electronic transmission;

“apparatus” has the same meaning as in Part 3 of the 1991 Act;

“authorised development” means the development and associated development described in Schedule 1 (authorised development) and any other development authorised by this Order, which is development within the meaning of section 32 (meaning of development) of the 2008 Act;

“the book of reference” means the book of reference certified by the Secretary of State as the book of reference for the purposes of this Order;

“building” includes any structure or erection or any part of a building, structure or erection;

“bridleway” has the same meaning as in the 1980 Act;

“carriageway” has the same meaning as in the 1980 Act;

“cycle track” has the same meaning as in section 329(1) (further provisions as to interpretation) of the 1980 Act(g);

“electronic transmission” means a communication transmitted—

(a) by means of an electronic communications network; or

(b) by other means but while in electronic form;

“the engineering drawings and sections” means the documents certified as the engineering drawings and sections by the Secretary of State for the purposes of this Order;

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(Miscellaneous Provisions) Measure 2006 (2006 No. 1). There are other amendments to the 1965 Act which are not relevant to this Order.

- (a) 1980 c. 66. Section 1(1) was amended by section 21(2) of the New Roads and Street Works Act 1991 (c. 22); sections 1(2), 1(3) and 1(4) were amended by section 8 of, and paragraph (1) of Schedule 4 to, the Local Government Act 1984 (c. 51); section 1(2A) was inserted, and section 1(3) was amended, by section 259(1), (2) and (3) of the Greater London Authority Act 1999 (c. 29); sections 1(3A) and 1(5) were inserted by section 22(1) of, and paragraph 1 of Schedule 7 to, the Local Government (Wales) Act 1994 (c. 19). Section 36(2) was amended by section 4(1) of, and paragraphs 47(a) and (b) of Schedule 2 to, the Housing (Consequential Provisions) Act 1985 (c. 71), by S.I. 2006/1177, by section 4 of, and paragraph 45(3) of Schedule 2 to, the Planning (Consequential Provisions) Act 1990 (c. 11), by section 64(1), (2) and (3) of the Transport and Works Act (c. 42) and by section 57 of, and paragraph 5 of Part 1 of Schedule 6 to, the Countryside and Rights of Way Act 2000 (c. 37); section 36(3A) was inserted by section 64(4) of the Transport and Works Act 1992 and was amended by S.I. 2006/1177; section 36(6) was amended by section 8 of, and paragraph 7 of Schedule 4 to, the Local Government Act 1985 (c. 51); and section 36(7) was inserted by section 22(1) of, and paragraph 4 of Schedule 7 to, the Local Government (Wales) Act 1994 (c. 19). Section 329 was amended by section 112(4) of, and Schedule 18 to, the Electricity Act 1989 (c. 29) and by section 190(3) of, and Part 1 of Schedule 27 to, the Water Act 1989 (c. 15). There are other amendments to the 1980 Act which are not relevant to this Order.
- (b) 1981 c. 66.
- (c) 1984 c. 27.
- (d) 1990 c. 8. Section 56(4) was amended by section 32 of, and paragraph 10(2) of Schedule 7 to, the Planning and Compensation Act 1991 (c. 34). Section 106 was substituted, and section 106A inserted, by section 12(1) of the Planning and Compensation Act 1991. Section 206(1) was amended by section 192(8) of, and paragraphs 7 and 11 of Schedule 8 to, the 2008 Act. Sections 272 to 274 and section 279 were amended by section 406(1) of, and paragraph 103 of Schedule 17 to, the Communications Act (c. 21), and section 280 was amended by section 406(1) of, and paragraph 104 of Schedule 17 to, that Act. Sections 272 to 274 were also amended by S.I. 2011/741 and S.I. 2012/2590. Section 282 was amended by S.I. 2009/1307. There are other amendments to the 1990 Act which are not relevant to this Order.
- (e) 1991 c. 22. Section 48(3A) was inserted by section 124 of the Local Transport Act 2008 (c. 26). Part 3 of the 1991 Act was amended by Part 4 of the Traffic Management Act 2004 (c. 18). Section 74 was amended, and sections 74A and 74B inserted, by sections 255 and 256 of the Transport Act 2000 (c. 38). There are other amendments to the 1991 Act but they are not relevant to this Order.
- (f) 2008 c. 29.
- (g) The definition of “cycle track” was amended by section 1 of the cycle Tracks Act 1984 (c. 38) and paragraph 21(2) of Schedule 3 to the Road Traffic (Consequential Provisions) Act 1988 (c. 54).

“environmental statement” means the environmental statement submitted with the application for the Order, and certified as the environmental statement by the Secretary of State for the purposes of this Order;

“footpath” and “footway” have the same meaning as in the 1980 Act;

“highway”, “highway authority” and “local highway authority” have the same meaning as in the 1980 Act;

“land plans” means the plans certified as the land plans by the Secretary of State for the purposes of this Order;

“linear work” means those works shown on the works plans as “linear work item centreline”;

“maintain” in relation to the authorised development includes to inspect, repair, adjust, alter, remove, clear, refurbish, reconstruct, decommission, demolish, replace and improve and any derivative of “maintain” is to be construed accordingly;

“non-linear work” means those scheduled works to be carried out in the locations shown on the works plans as “Non-linear Work Boundary”;

“Order land” means the land shown on the land plans within the limits of land to be acquired or used permanently or temporarily, and described in the book of reference;

“the Order limits” means the limit line shown on the works plans and the land plans, within which the authorised development may be carried out;

“owner”, in relation to land, has the same meaning as in section 7 (interpretation) of the Acquisition of Land Act 1981(a);

“relevant planning authority” means the local planning authority for the land in question;

“scheduled works” means the numbered works specified in Schedule 1 (authorised development) to this Order and shown on the works plans, or any part of them as the same may be varied pursuant to article 3 (development consent etc. granted by the Order);

“Secretary of State” means the Secretary of State for Transport;

“slip road” means any of the slip roads leading to or from the eastbound carriageway or the westbound carriageway of the M4 between Junctions 3 and 12;

“special road” means a highway which is a special road in accordance with section 16 (streets, street works and undertakers) of the 1980 Act or by virtue of an order granting development consent;

“statutory undertaker” means any statutory undertaker for the purposes of section 127(8) (statutory undertakers’ land) of the 2008 Act;

“street” means a street within the meaning of section 48 (streets, street works and undertakers) of the 1991 Act, together with land on the verge of a street or between two carriageways, and includes part of a street;

“street authority”, in relation to a street, has the same meaning as in Part 3 of the 1991 Act;

“the tribunal” means the Lands Chamber of the Upper Tribunal;

“trunk road” means a highway which is a trunk road by virtue of—

- (a) section 10 (general provision as to trunk roads) or 19(1) (certain special roads and other highways to become trunk roads) of the 1980 Act;
- (b) an order or direction under section 10 of that Act; or
- (c) an order granting development consent; or
- (d) any other enactment;

“TSCS” means a thin surface course system as defined in the Manual of Contract Documents for Highway Works, Volume 1 Specification for Highway Works clause 942;

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(a) 1981 c. 67. Section 7 was amended by section 70 of, and paragraph 9 of Schedule 15 to, the Planning and Compensation Act 1991 (c. 34). There are other amendments to the 1981 Act which are not relevant to this Order.

“undertaker” means Highways England Company Limited, company number 09346363, whose registered office is at Bridge House, 1 Walnut Tree Close, Guildford, Surrey, GU1 4LZ, which is the named undertaker, any statutory successor to Highways England, or any other person who has the benefit of this Order in accordance with article 7 (benefit of Order);

“watercourse”, unless otherwise provided, includes all rivers, streams, ditches, drains, canals, cuts, culverts, dykes, sluices, sewers and passages through which water flows except a public sewer or drain; and

“the works plans” means the plans certified as the works plans by the Secretary of State for the purposes of this Order.

(2) References in this Order to rights over land include references to rights to do or to place and maintain, anything in, on or under land or in the air–space above its surface and references in this Order to the imposition of restrictive covenants are references to the creation of rights over land which interfere with the interests or rights of another and are for the benefit of land which is acquired under this Order or is otherwise comprised in the Order land.

(3) All distances, directions and lengths referred to in this Order are approximate and distances between points on a work comprised in the authorised development are taken to be measured along that work.

(4) All areas described in square metres in the book of reference are approximate.

(5) References in this Order to plots of land are to plots identified on the land plans and in the book of reference.

(6) References in this Order to numbered works are references to the works as numbered in Schedule 1 (authorised development).

## PART 2

### PRINCIPAL POWERS

#### **Development consent etc. granted by the Order**

**3.**—(1) Subject to the provisions of this Order and to the requirements, the undertaker is granted development consent for the authorised development to be carried out and operated within the Order limits.

(2) Subject to article 6 (power to deviate) the development authorised by this Order is to be constructed in the lines or situations shown on the works plans and, subject to the provisions of the requirements, in accordance with the drawings specified in the requirements.

#### **Maintenance of authorised development**

**4.** Without prejudice to section 41 (duty to maintain highways maintainable at the public expense) of the 1980 Act and section 1 (appointment of strategic highways companies) of the Infrastructure Act 2015(a) the undertaker may at any time maintain the authorised development, except to the extent that this Order or an agreement made under this Order or the 1980 Act, provides otherwise.

#### **Planning permission**

**5.** If planning permission is issued pursuant to the 1990 Act for development any part of which is within the Order limits following the publication of this Order that is—

- (a) not itself a nationally significant infrastructure project under the 2008 Act or part of such a project; or

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(a) 2015 c. 7.

- (b) required to complete or enable the use or operation of any part of the development authorised by this Order,

then the carrying out, use or operation of such development pursuant to the terms of the planning permission is not to constitute a breach of the terms of this Order.

### **Power to deviate**

6. In carrying out the scheduled works the undertaker may—
- (a) deviate laterally from the lines or situations shown on the works plans within the Order limits in respect of any linear work and in respect of any non-linear work within the Non-Linear Work Boundary for that work; and
  - (b) deviate vertically from the levels shown or noted on the engineering drawings and sections, to a maximum of 0.5 metres upwards or downwards; and
  - (c) deviate vertically from the parapet heights stated on the engineering drawings and sections, to a maximum of 0.5 metres upwards

### **Benefit of the Order**

7.—(1) Subject to article 8 (consent to transfer benefit of the Order) and article 12 (construction and maintenance of new, altered or diverted streets) and paragraph (2), the provisions of this Order conferring powers on the undertaker have effect solely for the benefit of the undertaker.

(2) Paragraph (1) does not apply to the works for which the consent is granted by this Order for the express benefit of owners and occupiers of land, statutory undertakers and other persons affected by the authorised development.

### **Consent to transfer benefit of the Order**

- 8.—(1) The undertaker may—
- (a) transfer to another person (“the transferee”) any or all of the benefit of the provisions of this Order and such related statutory rights as may be agreed between the undertaker and the transferee; or
  - (b) grant to another person (“the lessee”) for a period agreed between the undertaker and the lessee any or all of the benefit of the provisions of this Order and such related statutory rights as may be so agreed.

(2) Where an agreement has been made in accordance with paragraph (1) references in this Order to the undertaker, except in paragraph (3), include references to the transferee or the lessee.

(3) The exercise by a person of any benefits or rights conferred in accordance with any transfer or grant under paragraph (1) is subject to the same restrictions, liabilities and obligations as would apply under this Order if those benefits or rights were exercised by the undertaker.

## **PART 3**

### **STREETS**

### **Application of the 1991 Act**

9.—(1) Works executed under this Order in relation to a highway which consists of or includes a carriageway are to be treated for the purposes of Part 3 (street works in England and Wales) of the 1991 Act as major highway works if—

- (a) they are of a description mentioned in any of paragraphs (a), (c) to (e), (g) and (h) of section 86(3) (highway authorities, highways and related matters) of that Act (which defines what highway authority works are major highway works); or



(b) they are works which, had they been executed by the highway authority, might have been carried out in exercise of the powers conferred by section 64 (dual carriageways and roundabouts) of the 1980 Act or section 184 (vehicle crossings over footways and verges) of that Act.

(2) In Part 3 of the 1991 Act references, in relation to major highway works, to the highway authority concerned are, in relation to works which are major highway works by virtue of paragraph (1), to be construed as references to the undertaker.

(3) The following provisions of the 1991 Act do not apply in relation to any works executed under the powers of this Order—

- section 56 (directions as to timing);
- section 56A (power to give directions as to placing of apparatus);
- section 58 (restrictions following substantial road works);
- section 58A (restriction on works following substantial street works);
- section 73A (power to require undertaker to re-surface street);
- section 73B (power to specify timing etc. of re-surfacing);
- section 73C (materials, workmanship and standard of re-surfacing);
- section 78A (contributions to costs of re-surfacing by undertaker); and
- Schedule 3A (restriction on works following substantial street works).

(4) The provisions of the 1991 Act mentioned in paragraph (5) (which, together with other provisions of that Act, apply in relation to the execution of street works) and any regulations made, or code of practice issued or approved under, those provisions apply (with the necessary modifications) in relation to any stopping up, alteration or diversion of a street of a temporary nature by the promoter under the powers conferred by article 14 (temporary stopping up of streets) whether or not the stopping up, alteration or diversion constitutes street works within the meaning of that Act.

(5) The provisions of the 1991 Act (a) referred to in paragraph (4) are—

- section 54(b) (advance notice of certain works), subject to paragraph (6);
- section 55(c) (notice of starting date of works), subject to paragraph (6);
- section 57(d) (notice of emergency works);
- section 59(e) (general duty of street authority to co-ordinate works);
- section 60 (general duty of undertakers to co-operate);
- section 68 (facilities to be afforded to street authority);
- section 69 (works likely to affect other apparatus in the street);
- section 75 (inspection fees);
- section 76 (liability for cost of temporary traffic regulation); and
- section 77 (liability for cost of use of alternative route),

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(a) Sections 54, 55, 57, 60, 68 and 69 were amended by section 40(1) and (2) of, and Schedule 1 to the Traffic Management Act 2004 c. 18.

(b) As also amended by section 49(1) of the Traffic Management Act 2004.

(c) As also amended by section 49(2) and 51(9) of the Traffic Management Act 2004.

(d) As also amended by section 52(3) of the Traffic Management Act 2004.

(e) As amended by section 42 of the Traffic Management Act 2004.

and all such other provisions as apply for the purposes of the provisions mentioned above.

(6) Sections 54 and 55 of the 1991 Act as applied by paragraph (4) have effect as if references in section 57 of that Act to emergency works were a reference to a stopping up, alteration or diversion (as the case may be) required in a case of emergency.

(7) Nothing in article 12 (construction and maintenance of new, altered or diverted streets)—

- (a) affects the operation of section 87 (prospectively maintainable highways) of the 1991 Act, and the undertaker is not by reason of any duty under that article to maintain a street to be taken to be the street authority in relation to that street for the purposes of Part 3 of that Act; or
- (b) has effect in relation to street works as respects which the provisions of Part 3 of the 1991 Act apply.

### **Power to alter layout etc. of streets**

**10.**—(1) Subject to paragraph (3), the undertaker may, for the purposes of constructing and maintaining the authorised development, alter the layout of any street within the Order limits and the layout of any street having a junction with such a street; and, without limitation on the scope of this paragraph, the undertaker may—

- (a) increase the width of the carriageway of the street by reducing the width of any kerb, footpath, footway, cycle track or verge within the street;
- (b) alter the level or increase the width of any such kerb, footway, cycle track or verge;
- (c) reduce the width of the carriageway of the street; and
- (d) make and maintain passing places.

(2) The undertaker must restore any street that has been temporarily altered under this article to the reasonable satisfaction of the street authority.

(3) The powers conferred by paragraph (1)—

- (a) are exercisable on the giving of not less than 42 days' notice to the street authority; and
- (b) are not to be exercised without the consent of the street authority where that authority is a public authority.

(4) If a street authority which receives an application for consent under paragraph (3) fails to notify the undertaker of its decision before the end of the period of 6 weeks beginning with the date on which the application was made, it is deemed to have granted consent.

(5) Paragraphs (2), (3) and (4) do not apply where the undertaker is the street authority for a street in which the works are being carried out.

### **Street works**

**11.**—(1) The undertaker may, for the purposes of the authorised development, enter on so much of any of the streets as are within the Order limits and may—

- (a) break up or open the street, or any sewer, drain or tunnel under it;
- (b) tunnel or bore under the street;
- (c) place apparatus in the street;
- (d) maintain apparatus in the street or change its position; and
- (e) execute any works required for, or incidental to, any works referred to in sub-paragraphs (a), (b), (c) and (d).

(2) The authority given by paragraph (1) is a statutory right for the purposes of sections 48(3) (streets, street works and undertakers) and 51(1) (prohibition of unauthorised street works) of the 1991 Act.

(3) The provisions of sections 54 to 106 of the 1991 Act apply to any street works carried out under paragraph (1).

(4) In this article “apparatus” has the same meaning as in Part 3 (street works in England and Wales) of the 1991 Act.

### **Construction and maintenance of new, altered or diverted streets**

12.—(1) Subject to paragraphs (3) and (4), any street (other than a trunk road or special road) to be constructed under this Order must be completed to the reasonable satisfaction of the local highway authority in whose area the street lies and, unless otherwise agreed with the local highway authority, must be maintained by and at the expense of the local highway authority from its completion.

(2) Subject to paragraphs (3) and (4), where a street (other than a trunk road or special road) is altered or diverted under this Order, the altered or diverted part of the street must, when completed to the reasonable satisfaction of the street authority, unless otherwise agreed with the street authority, be maintained by and at the expense of the street authority from its completion.

(3) In the case of a bridge constructed under this Order to carry a public right of way, the highway surface must be completed to the reasonable satisfaction of the street authority and maintained by and at the expense of the local highway authority and the structure of the bridge must be maintained by and at the expense of the undertaker.

(4) In the case of a bridge constructed under this Order to carry a private right of way, the surface and the structure of the bridge must be maintained by and at the expense of the undertaker.

(5) In any action against the undertaker in respect of loss or damage resulting from any failure by the undertaker to maintain a street under this article, it is a defence (without prejudice to any other defence or the application of the law relating to contributory negligence) to prove that the undertaker had taken such care as in all the circumstances was reasonably required to secure that the part of the street to which the action relates was not dangerous to traffic.

(6) For the purposes of a defence under paragraph (5), the court must in particular have regard to the following matters—

- (a) the character of the street and the traffic which was reasonably to be expected to use it;
- (b) the standard of maintenance appropriate for a street of that character and used by such traffic;
- (c) the state of repair in which a reasonable person would have expected to find the street;
- (d) whether the undertaker knew, or could reasonably have been expected to know, that the condition of the part of the street to which the action relates was likely to cause danger to users of the street; and
- (e) where the undertaker could not reasonably have been expected to repair that part of the street before the cause of action arose, what warning notices of its condition had been displayed,

but for the purposes of such a defence it is not relevant to prove that the undertaker had arranged for a competent person to carry out or supervise the maintenance of the part of the street to which the action relates unless it is also proved that the undertaker had given the competent person proper instructions with regard to the maintenance of the street and that the competent person had carried out those instructions.

### **Permanent stopping up of streets**

13.—(1) Subject to the provisions of this article, the undertaker may, in connection with the carrying out of the authorised development, stop up each of the streets specified in columns (1) and (2) of Schedule 3 (permanent stopping up of streets) to the extent specified and described in column (3) of that Schedule.

(2) No street specified in columns (1) and (2) of Schedule 3 (permanent stopping up of streets) is to be wholly or partly stopped up under this article unless—

- (a) the new street to be constructed and substituted for it, specified in column (4) of that Schedule, has been completed to the reasonable satisfaction of the street authority and is open for use; or
  - (b) a temporary alternative route for the passage of such traffic as could have used the street to be stopped up is first provided and subsequently maintained by the undertaker, to the reasonable satisfaction of the street authority, between the commencement and termination points for the stopping up of the street until the completion and opening of the new street in accordance with sub-paragraph (a).
- (3) Where a street has been stopped up under this article—
- (a) all rights of way over or along the street so stopped up are extinguished; and
  - (b) the undertaker may appropriate and use for the purposes of the authorised development so much of the site of the street as is bounded on both sides by land owned by the undertaker.
- (4) Any person who suffers loss by the suspension or extinguishment of any private right of way under this article is entitled to compensation to be determined, in case of dispute, under Part 1 (determination of questions of disputed compensation) of the 1961 Act.
- (5) This article is subject to article 32 (apparatus and rights of statutory undertakers in stopped up streets).

### **Temporary stopping up of streets**

**14.—**(1) The undertaker, during and for the purposes of carrying out the authorised development, may temporarily stop up, alter or divert any street and may for any reasonable time—

- (a) divert the traffic from the street; and
- (b) subject to paragraph (3), prevent all persons from passing along the street.

(2) Without limitation on the scope of paragraph (1), the undertaker may use any street temporarily stopped up under the powers conferred by this article and within the Order limits as a temporary working site.

(3) The undertaker must provide reasonable access for pedestrians going to or from premises abutting a street affected by the temporary stopping up, alteration or diversion of a street under this article if there would otherwise be no such access.

(4) Without limitation on the scope of paragraph (1), the undertaker may temporarily stop up, alter or divert the streets specified in columns (1) and (2) of Schedule 4 (temporary stopping up of streets) to the extent specified in column (3) of that Schedule.

(5) The undertaker must not temporarily stop up, alter or divert any street for which the undertaker is not the street authority without the consent of the street authority, which may attach reasonable conditions to any consent.

(6) If a street authority which receives an application for consent under paragraph 14(5) fails to notify the undertaker of its decision before the end of the period of 6 weeks beginning with the date on which the application was made, it is deemed to have granted consent.

(7) Any person who suffers loss by the suspension of any private right of way under this article is entitled to compensation to be determined, in case of dispute, under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

### **Access to works**

**15.** The undertaker may for the purposes of the authorised development form and lay out means of access, or improve existing means of access at such locations within the Order limits as the undertaker reasonably requires for the purposes of the authorised development.

### **Powers in relation to relevant navigations or watercourses**

16.—(1) Subject to Schedule 9 (protection of interests), the undertaker may, for the purpose of or in connection with the carrying out and maintenance of the authorised development, regardless of any interference with any public or private rights—

- (a) temporarily alter, interfere with, occupy and use the banks, bed, foreshores, waters and walls of a relevant navigation or watercourse;
- (b) remove or relocate any moorings so far as may be reasonably necessary for the purposes of carrying out and of maintaining the authorised development;
- (c) temporarily moor or anchor vessels and structures;
- (d) construct, place, maintain and remove temporary works and structures within the banks, bed, foreshores, waters and walls of a relevant navigation or watercourse; and
- (e) interfere with the navigation of any relevant navigation or watercourse in such manner and to such extent as may appear to it to be necessary or convenient.

(2) Except in the case of emergency, the undertaker must use reasonable endeavours to notify the owner of any mooring affected by the proposal to exercise the powers conferred by subparagraph (1)(b) before the exercise of those powers.

(3) The undertaker must pay compensation to any person entitled to compensation under the 1961 Act who suffers any loss or damage from the exercise of the powers conferred by subparagraph (1)(b).

(4) Any dispute as to a person's entitlement to compensation under paragraph (3), or as to the amount of compensation, is to be determined under Part 1 of the 1961 Act.

(5) In this article, "relevant navigation" means so much of—

- (a) The Kennet and Holy River;
- (b) The Kennet and Avon Canal;
- (c) The River Thames;
- (d) The River Crane;
- (e) The Jubilee River;
- (f) The Cut; and
- (g) River Colne,

as the context requires.

(6) Nothing in this article overrides the requirement to obtain necessary consents under the Water Resources Act 1991(a) or the Thames Water Authority Land Drainage Byelaws 1981.

## **PART 4**

### **SUPPLEMENTAL POWERS**

#### **Discharge of water**

17.—(1) Subject to paragraphs (3) and (4), the undertaker may use any watercourse or any public sewer or drain for the drainage of water in connection with the carrying out or maintenance of the authorised development and for that purpose may lay down, take up and alter pipes and may, on any land within the Order limits, make openings into, and connections with, the watercourse, public sewer or drain.

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(a) 1991 c.57.

(2) Any dispute arising from the making of connections to or the use of a public sewer or drain by the undertaker under paragraph (1) is to be determined as if it were a dispute under section 106 (right to communicate with public sewers) of the Water Industry Act 1991(a).

(3) The undertaker must not discharge any water into any watercourse, public sewer or drain except with the consent of the person to whom it belongs; and such consent may be given subject to such terms and conditions as that person may reasonably impose.

(4) The undertaker must not make any opening into any public sewer or drain except—

- (a) in accordance with plans approved by the person to whom the sewer or drain belongs; and
- (b) where that person has been given the opportunity to supervise the making of the opening.

(5) The undertaker must not, in carrying out or maintaining works under the powers conferred by this article, damage or interfere with the bed or banks of any watercourse forming part of a main river.

(6) The undertaker must take such steps as are reasonably practicable to secure that any water discharged into a watercourse or public sewer or drain under the powers conferred by this article is as free as may be practicable from gravel, soil or other solid substance, oil or matter in suspension.

(7) Nothing in this article overrides the requirement for an environmental permit under regulation 12(1)(b) of the Environmental Permitting (England and Wales) Regulations 2010 (requirement for environmental permit)(b).

(8) In this article—

“public sewer or drain” means a sewer or drain which belongs to the Homes and Communities Agency, the Environment Agency, an internal drainage board, a joint planning board, a local authority, a sewerage undertaker or an urban development corporation; and

other expressions, excluding watercourse, except as otherwise defined in this Order, used both in this article and in the Environmental Permitting (England and Wales) Regulations 2010 have the same meaning as in those Regulations.

(9) If a person under paragraph (3) receives an application for consent and fails to notify the undertaker of its decision before the end of the period of 6 weeks beginning with the date on which the application was made, the person is deemed to have granted consent.

### **Protective work to buildings**

**18.—**(1) Subject to the following provisions of this article, the undertaker may at the undertaker’s own expense carry out such protective works to any building lying within the Order limits or which may be affected by the authorised development as the undertaker considers necessary or expedient.

(2) Protective works may be carried out—

- (a) at any time before or during the carrying out in the vicinity of the building of any part of the authorised development; or
- (b) after the completion of that part of the authorised development in the vicinity of the building at any time up to the end of the period of 5 years beginning with the day on which that part of the authorised development is first opened for use.

(3) For the purpose of determining how the functions under this article are to be exercised the undertaker may, subject to paragraph (5), enter and survey any building falling within paragraph (1) and any land within its curtilage.

(4) For the purpose of carrying out protective works under this article to a building the undertaker may (subject to paragraphs (5) and (6))—

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(a) Section 106 was amended by section 35(1) and (8) of, and Schedule 2 to, the Competition and Service (Utilities) Act 1992 (c. 43), sections 36(2) and 99 of the Water Act 2003 (c. 37) and paragraph 16(1) of Schedule 3 to the Flood and Water Management Act 2010 (c. 29)

(b) S.I. 2010/675, to which there are amendments not relevant to this Order

- (a) enter the building and any land within its curtilage; and
- (b) where the works cannot be carried out reasonably conveniently without entering land which is adjacent to the building but outside its curtilage, enter the adjacent land (but not any building erected on it).

(5) Before exercising—

- (a) a right under paragraph (1) to carry out protective works to a building;
- (b) a right under paragraph (3) to enter a building and land within its curtilage;
- (c) a right under paragraph (4)(a) to enter a building and land within its curtilage; or
- (d) a right under paragraph (4)(b) to enter land,

the undertaker must, except in the case of emergency, serve on the owners and occupiers of the building or land not less than 14 days' notice of intention to exercise that right and, in a case falling within sub-paragraph (a) or (c), specify the protective works proposed to be carried out.

(6) Where a notice is served under paragraph (5)(a), (c) or (d), the owner or occupier of the building or land concerned may, by serving a counter-notice within the period of 10 days beginning with the day on which the notice was served, require the question whether it is necessary or expedient to carry out the protective works or to enter the building or land to be referred to arbitration under article 45 (arbitration).

(7) The undertaker must compensate the owners and occupiers of any building or land in relation to which rights under this article have been exercised for any loss or damage arising to them by reason of the exercise of those rights.

(8) Where—

- (a) protective works are carried out under this article to a building; and
- (b) within the period of 5 years beginning with the day on which the part of the authorised development carried out in the vicinity of the building is first opened for use it appears that the protective works are inadequate to protect the building against damage caused by the carrying out or use of that part of the authorised development,

the undertaker must compensate the owners and occupiers of the building for any loss or damage sustained by them.

(9) Nothing in this article relieves the undertaker from any liability to pay compensation under section 152 (compensation in case where no right to claim in nuisance) of the 2008 Act.

(10) Any compensation payable under paragraph (7) or (8) is to be determined, in case of dispute, under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(11) In this article “protective works” in relation to a building means—

- (a) underpinning, strengthening and any other works the purpose of which is to prevent damage which may be caused to the building by the carrying out, maintenance or use of the authorised development; and
- (b) any works the purpose of which is to remedy any damage which has been caused to the building by the carrying out, maintenance or use of the authorised development.

#### **Authority to survey and investigate the land**

**19.—**(1) The undertaker may for the purposes of this Order enter on any land shown within the Order limits or which may be affected by the authorised development and—

- (a) survey or investigate the land;
- (b) without limitation on the scope of sub-paragraph (a), make trial holes in such positions on the land as the undertaker thinks fit to investigate the nature of the surface layer and subsoil and remove soil samples;
- (c) without limitation on the scope of sub-paragraph (a), carry out ecological or archaeological investigations on such land; and

- (d) place on, leave on and remove from the land apparatus for use in connection with the survey and investigation of land and making of trial holes.
- (2) No land may be entered or equipment placed or left on or removed from the land under paragraph (1) unless at least 14 days' notice has been served on every owner and occupier of the land.
- (3) Any person entering land under this article on behalf of the undertaker—
- (a) must, if so required, before or after entering the land, produce written evidence of authority to do so; and
  - (b) may take onto the land such vehicles and equipment as are necessary to carry out the survey or investigation or to make the trial holes.
- (4) No trial holes are to be made under this article—
- (a) in land located within the highway boundary without the consent of the highway authority; or
  - (b) in a private street without the consent of the street authority.
- (5) The undertaker must compensate the owners and occupiers of the land for any loss or damage arising by reason of the exercise of the authority conferred by this article, such compensation to be determined, in case of dispute, under Part 1 (determination of questions of disputed compensation) of the 1961 Act.
- (6) If a highway authority under paragraph (4)(a) or a street authority under (4)(b) receives an application for consent and fails to notify the undertaker of its decision before the end of the period of 6 weeks beginning with the date on which the application was made, the highway authority or street authority, as relevant, is deemed to have granted consent.

## PART 5

### POWERS OF ACQUISITION

#### **Compulsory acquisition of land**

**20.**—(1) The undertaker may acquire compulsorily so much of the Order land as is required for the authorised development or to facilitate, or is incidental to, it.

(2) This article is subject to paragraph (2) of article 22 (compulsory acquisition of rights) and paragraph (8) of article 29 (temporary use of land for carrying out the authorised development).

#### **Time limit for exercise of authority to acquire land compulsorily**

**21.**—(1) After the end of the period of 5 years beginning on the day on which this Order is made—

- (a) no notice to treat is to be served under Part 1 (Compulsory Purchase under Acquisition of Land Act of 1946) of the 1965 Act; and
- (b) no declaration is to be executed under section 4 (execution of declaration) of the 1981 Act as applied by article 25 (application of the Compulsory Purchase (Vesting Declarations) Act 1981).

(2) The authority conferred by article 29 (temporary use of land for carrying out the authorised development) ceases at the end of the period referred to in paragraph (1), except that nothing in this paragraph prevents the undertaker remaining in possession of land after the end of that period, if the land was entered and possession was taken before the end of that period.

#### **Compulsory acquisition of rights**

**22.**—(1) Subject to paragraph (2), the undertaker may acquire such rights over the Order land or impose restrictive covenants affecting the land as may be required for any purpose for which that



land may be acquired under article 20 (compulsory acquisition of land) by creating them as well as acquiring rights already in existence.

(2) In the case of the Order land specified in column (1) of Schedule 5 (land in which only new rights etc. may be acquired) the undertaker's powers of compulsory acquisition are limited to the acquisition of such wayleaves, easements, new rights in the land or the imposition of restrictive covenants, as may be required for the purpose specified in relation to that land in column (2) of that Schedule.

(3) Subject to section 8 (other provisions as to divided land) of the 1965 Act, as substituted by paragraph 5 of Schedule 6 (modification of compensation and compulsory purchase enactments for creation of new rights), where the undertaker acquires a right over land or the benefit of a restrictive covenant under paragraph (1) or (2), the undertaker is not required to acquire a greater interest in that land.

(4) Schedule 4 (temporary stopping up of streets) has effect for the purpose of modifying the enactments relating to compensation and the provisions of the 1965 Act in their application in relation to the compulsory acquisition under this article of a right over land by the creation of a new right or the imposition of a restrictive covenant.

### **Power to override easements and other rights**

**23.—**(1) Any authorised activity which takes place on land within the Order limits (whether the activity is undertaken by the undertaker, by its successor pursuant to a transfer or lease under article 8 (consent to transfer benefit of the Order) of this Order, by any person deriving title under them or by any of their servants or agents) is authorised by this Order for the purposes of this article if it is authorised by the Order apart from this article and done in accordance with the terms of this Order, notwithstanding that it involves—

- (a) an interference with an interest or right to which this article applies; or
- (b) a breach of a restriction as to the user of land arising by virtue of a contract.

(2) In this article “authorised activity” means—

- (a) the erection, construction or carrying out, or maintenance of any building or work on land;
- (b) the erection, construction, or maintenance or anything in, on, over or under land; or
- (c) the use of any land.

(3) The interests and rights to which this article applies are any easement, liberty, privilege, right or advantage annexed to land and adversely affecting other land, including any natural right to support (and include restrictions as to the user of land arising by the virtue of a contract having that effect).

(4) Where any interest or right to which this article applies is interfered with or any restriction breached by any authorised activity in accordance with the terms of this article the interest or right is to be extinguished, abrogated or discharged at the time that the interference or breach in respect of the authorised activity in question commences but only to the extent required for or necessary or incidental to the authorised development.

(5) In respect of any interference, breach, extinguishment, abrogation or discharge in pursuance of this article, compensation—

- (a) is to be payable under section 63 or 68 of the Lands Clauses Consolidation Act 1845 or under section 7 (measure of compensation in case of severance) or 10 (further provisions as to compensation for injurious affection) of the Compulsory Purchase Act 1965; and
- (b) is to be assessed in the same manner and subject to the same rules as in the case of other compensation under those sections where—
  - (i) the compensation is to be estimated in connection with a purchase under those Acts; or
  - (ii) the injury arises from the execution of works on or use of land acquired under those Acts.

(6) Nothing in this article is to be construed as authorising any act or omission on the part of any person which is actionable at the suit of any person on any grounds other than such an interference or breach as is mentioned in paragraph (1) of this article.

(7) This article is not to apply in respect of any agreement, restriction, obligation or other provision contained in a deed made pursuant to section 106 (planning obligations) of the 1990 Act, or section 278 (agreements as to execution of works) of the 1980 Act.

### **Private rights over land**

**24.—**(1) Subject to the provisions of this article, all private rights over land subject to compulsory acquisition under this Order are extinguished—

- (a) as from the date of acquisition of the land by the undertaker, whether compulsorily or by agreement; or
- (b) on the date of entry on the land by the undertaker under section 11(1) (power of entry) of the 1965 Act,

whichever is the earlier.

(2) Subject to the provisions of this article, all private rights over land subject to the compulsory acquisition of rights or the imposition of restrictive covenants under this Order are extinguished in so far as their continuance would be inconsistent with the exercise of the right or burden of the restrictive covenant—

- (a) as from the date of the acquisition of the right or the benefit of the restrictive covenant by the undertaker, whether compulsorily or by agreement; or
- (b) on the date of entry on the land by the undertaker under section 11(1) of the 1965 Act,

whichever is the earlier.

(3) Subject to the provisions of this article, all private rights over land owned by the undertaker which, being within the limits of land which may be acquired or used shown on the land plans, are required for the purposes of this Order are extinguished on commencement of any activity authorised by this Order which interferes with or breaches those rights.

(4) Subject to the provisions of this article, all private rights over land of which the undertaker takes temporary possession under this Order are suspended and unenforceable for as long as the undertaker remains in lawful possession of the land.

(5) Any person who suffers loss by the extinguishment or suspension of any private right under this article is entitled to compensation in accordance with the terms of section 152 (compensation in case where no right to claim in nuisance) of the 2008 Act to be determined, in case of dispute, under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(6) This article does not apply in relation to any right to which section 138 (extinguishment of rights, and removal of apparatus, of statutory undertakers etc.) of the 2008 Act or article 31 (statutory undertakers) applies.

(7) Paragraphs (1) to (4) have effect subject to—

- (a) any notice given by the undertaker before—
  - (i) the completion of the acquisition of the land or the acquisition of the rights or the imposition of restrictive covenants over or affecting the land;
  - (ii) the undertaker's appropriation of it;
  - (iii) the undertaker's entry onto it; or
  - (iv) the undertaker's taking temporary possession of it,that any or all of those paragraphs do not apply to any right specified in the notice; and
- (b) any agreement made at any time between the undertaker and the person in or to whom the right in question is vested or belongs.

(8) If any such agreement as is referred to in paragraph (7)(b)—

- (a) is made with a person in or to whom the right is vested or belongs; and
- (b) is expressed to have effect also for the benefit of those deriving title from or under that person,

it is effective in respect of the persons so deriving title, whether the title was derived before or after the making of the agreement.

(9) References in this article to private rights over land include any trust, incident, easement, liberty, privilege, right or advantage annexed to land and adversely affecting other land, including any natural right to support and include restrictions as to the user of land arising by virtue of a contract, agreement or undertaking having that effect.

### **Application of the Compulsory Purchase (Vesting Declarations) Act 1981**

**25.**—(1) The 1981 Act applies as if this Order were a compulsory purchase order.

(2) The 1981 Act, as so applied, has effect with the following modifications.

(3) In section 1 (application of Act) for subsection (2) substitute—

“(2) This section applies to any Minister, any local or other public authority or any other person authorised to acquire land by means of a compulsory purchase order.”.

(4) In section 3 (preliminary notices) for subsection (1) substitute—

“(1) Before making a declaration under section 4 with respect to any land which is subject to a compulsory purchase order the acquiring authority must include the particulars specified in subsection (3) in a notice which is—

- (a) given to every person with a relevant interest in the land with respect to which the declaration is to be made (other than a mortgagee who is not in possession); and
- (b) published in a local newspaper circulating in the area in which the land is situated.”.

(5) In that section, in subsection (2), for “(1)(b)” substitute “(1)” and after “given” insert “and published”.

(6) In that section, for subsections (5) and (6) substitute—

“(5) For the purposes of this section, a person has a relevant interest in land if—

- (a) that person is for the time being entitled to dispose of the fee simple of the land, whether in possession or in reversion; or
- (b) that person holds, or is entitled to the rents and profits of, the land under a lease or agreement, the unexpired term of which exceeds one month.”.

(7) In section 5 (earliest date for execution of declaration)—

- (a) in subsection (1), after “publication” insert “in a local newspaper circulating in the area in which the land is situated”; and
- (b) omit subsection (2).

(8) In section 7 (constructive notice to treat) in subsection (1)(a), omit “(as modified by section 4 of the Acquisition of Land Act 1981)”.

(9) References to the 1965 Act in the 1981 Act are to be construed as references to the 1965 Act as applied by section 125 (application of compulsory acquisition provisions) of the 2008 Act to the compulsory acquisition of land under this Order.

### **Acquisition of subsoil or air-space only**

**26.**—(1) The undertaker may acquire compulsorily so much of, or such rights in, the subsoil of or the air-space over the land referred to in paragraph (1) of article 20 (compulsory acquisition of land) as may be required for any purpose for which that land may be acquired under that provision instead of acquiring the whole of the land.

(2) Where the undertaker acquires any part of, or rights in, the subsoil of or the air-space over land referred to in paragraph (1), the undertaker is not required to acquire an interest in any other part of the land.

(3) Paragraph (2) does not prevent article 27 (acquisition of part of certain properties) from applying where the undertaker acquires a cellar, vault, arch or other construction forming part of a house, building or manufactory.

### **Acquisition of part of certain properties**

**27.—**(1) This article applies instead of section 8(1) (other provisions as to divided land) of the 1965 Act (as applied by section 125 (application of compulsory acquisition provisions) of the 2008 Act) where—

- (a) a notice to treat is served on a person (“the owner”) under the 1965 Act (as so applied) in respect of land forming only part of a house, building or manufactory or of land consisting of a house with a park or garden (“the land subject to the notice to treat”); and
- (b) a copy of this article is served on the owner with the notice to treat.

(2) In such a case, the owner may, within the period of 21 days beginning with the day on which the notice was served, serve on the undertaker a counter-notice objecting to the sale of the land subject to the notice to treat and stating that the owner is willing and able to sell the whole (“the land subject to the counter-notice”).

(3) If no such counter-notice is served within that period, the owner must sell the land subject to the notice to treat.

(4) If such a counter-notice is served within that period, the question whether the owner must sell only the land subject to the notice to treat is, unless the undertaker agrees to take the land subject to the counter-notice, to be referred to the tribunal.

(5) If on such a reference the tribunal determine that the land subject to the notice to treat can be taken—

- (a) without material detriment to the remainder of the land subject to the counter-notice; or
- (b) in the case of part of land consisting of a house with a park or garden, without material detriment to the remainder of the land subject to the counter-notice and without seriously affecting the amenity and convenience of the house,

the owner must sell the land subject to the notice to treat.

(6) If on such a reference the tribunal determine that only part of the land subject to the notice to treat can be taken—

- (a) without material detriment to the remainder of the land subject to the counter-notice; or
- (b) in the case of part of land consisting of a house with a park or garden, without material detriment to the remainder of the land subject to the counter-notice and without seriously affecting the amenity and convenience of the house,

the notice to treat is deemed to be a notice to treat for that part.

(7) If on such a reference the tribunal determine that—

- (a) the land subject to the notice to treat cannot be taken without material detriment to the remainder of the land subject to the counter-notice; but
- (b) the material detriment is confined to a part of the land subject to the counter-notice,

the notice to treat is deemed to be a notice to treat for the land to which the material detriment is confined in addition to the land already subject to the notice, whether or not the additional land is land which the undertaker is authorised to acquire compulsorily under this Order.

(8) If the undertaker agrees to take the land subject to the counter-notice, or if the tribunal determine that—

- (a) none of the land subject to the notice to treat can be taken without material detriment to the remainder of the land subject to the counter-notice or, as the case may be, without

material detriment to the remainder of the land subject to the counter-notice and without seriously affecting the amenity and convenience of the house; and

(b) the material detriment is not confined to a part of the land subject to the counter-notice,

the notice to treat is deemed to be a notice to treat for the land subject to the counter-notice whether or not the whole of that land is land which the undertaker is authorised to acquire compulsorily under this Order.

(9) Where, by reason of a determination by the tribunal under this article a notice to treat is deemed to be a notice to treat for less land or more land than that specified in the notice, the undertaker may, within the period of 6 weeks beginning with the day on which the determination is made, withdraw the notice to treat; and in that event must pay the owner compensation for any loss or expense occasioned to the owner by the giving and withdrawal of the notice, to be determined in case of dispute by the tribunal.

(10) Where the owner is required under this article to sell only part of a house, building or manufactory or of land consisting of a house with a park or garden, the undertaker must pay the owner compensation for any loss sustained by the owner due to the severance of that part in addition to the value of the interest acquired.

### **Rights under or over streets**

**28.—**(1) The undertaker may enter on and appropriate so much of the subsoil of, or air-space over, any street within the Order limits as may be required for the purposes of the authorised development and may use the subsoil or air-space for those purposes or any other purpose ancillary to the authorised development.

(2) Subject to paragraph (3), the undertaker may exercise any power conferred by paragraph (1) in relation to a street without being required to acquire any part of the street or any easement or right in the street.

(3) Paragraph (2) does not apply in relation to—

- (a) any subway or underground building; or
- (b) any cellar, vault, arch or other construction in, on or under a street which forms part of a building fronting onto the street.

(4) Subject to paragraph (5), any person who is an owner or occupier of land in respect of which the power of appropriation conferred by paragraph (1) is exercised without the undertaker acquiring any part of that person's interest in the land, and who suffers loss as a result, is entitled to compensation to be determined, in case of dispute, under Part 1 of the 1961 Act.

(5) Compensation is not payable under paragraph (4) to any person who is an undertaker to whom section 85 (sharing cost of necessary measures) of the 1991 Act applies in respect of measures of which the allowable costs are to be borne in accordance with that section.

### **Temporary use of land for carrying out the authorised development**

**29.—**(1) The undertaker may, in connection with the carrying out of the authorised development—

(a) enter on and take temporary possession of—

- (i) the land specified in columns (1) and (2) of Schedule 7 (land of which temporary possession may be taken) for the purpose specified in relation to that land in column (3) of that Schedule relating to the part of the authorised development specified in column (4) of that Schedule; and
- (ii) any other Order land in respect of which no notice of entry has been served under section 11 (powers of entry) of the 1965 Act (other than in connection with the acquisition of rights only) and no declaration has been made under section 4 (execution of declaration) of the 1981 Act;

(b) remove any buildings and vegetation from that land; and

(c) construct temporary works (including the provision of means of access) and buildings on that land.

(2) Not less than 14 days before entering on and taking temporary possession of land under this article the undertaker must serve notice of the intended entry on the owners and occupiers of the land.

(3) The undertaker may not, without the agreement of the owners of the land, remain in possession of any land under this article—

(a) in the case of any land specified in paragraph (1)(a)(i), after the end of the period of one year beginning with the date of completion of the part of the authorised development specified in relation to that land in column (4) of Schedule 7 (land of which temporary possession may be taken); or

(b) in the case of any land referred to in paragraph (1)(a)(ii), after the end of the period of one year beginning with the date of completion of the work for which temporary possession of the land was taken unless the undertaker has, by the end of that period, served a notice of entry under section 11 (powers of entry) of the 1965 Act or made a declaration under section 4 (execution of declaration) of the 1981 Act in relation to that land.

(4) Before giving up possession of land of which temporary possession has been taken under this article, the undertaker must remove all temporary works and restore the land to the reasonable satisfaction of the owners of the land; but the undertaker is not required to—

(a) replace a building removed under this article; or

(b) remove any ground strengthening works which have been placed on the land to facilitate construction of the authorised development.

(5) The undertaker must pay compensation to the owners and occupiers of land of which temporary possession is taken under this article for any loss or damage arising from the exercise in relation to the land of the provisions of this article.

(6) Any dispute as to a person's entitlement to compensation under paragraph (5), or as to the amount of the compensation, is to be determined under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(7) Nothing in this article affects any liability to pay compensation under section 152 (compensation in case where no right to claim in nuisance) of the 2008 Act or under any other enactment in respect of loss or damage arising from the carrying out of the authorised development, other than loss or damage for which compensation is payable under paragraph (5).

(8) The undertaker may not compulsorily acquire under this Order the land referred to in paragraph (1)(a)(i) except that the undertaker is not precluded from—

(a) acquiring new rights over any part of that land under article 22 (compulsory acquisition of rights); or

(b) acquiring any part of the subsoil (or rights in the subsoil of or air-space over) that land under article 26 (acquisition of subsoil or air-space only).

(9) Where the undertaker takes possession of land under this article, the undertaker is not required to acquire the land or any interest in it.

(10) Section 13 (refusal to give possession to acquiring authority) of the 1965 Act applies to the temporary use of land under this article to the same extent as it applies to the compulsory acquisition of land under this Order by virtue of section 125 (application of compulsory acquisition provisions) of the 2008 Act.

(11) Paragraph (1)(a)(ii) does not authorise the undertaker to take temporary possession of any land which the undertaker is not authorised to acquire under article 20 (compulsory acquisition of land) or any land specified in Schedule 5 (land in which only new rights etc. may be acquired).

### **Temporary use of land for maintaining the authorised development**

**30.**—(1) Subject to paragraph (2), at any time during the maintenance period relating to any part of the authorised development, the undertaker may—

- (a) enter on and take temporary possession of any land within the Order limits if such possession is reasonably required for the purpose of maintaining the authorised development; and
  - (b) construct such temporary works (including the provision of means of access) and buildings on the land as may be reasonably necessary for that purpose.
- (2) Paragraph (1) does not authorise the undertaker to take temporary possession of—
- (a) any house or garden belonging to a house; or
  - (b) any building (other than a house) if it is for the time being occupied.
- (3) Not less than 28 days before entering on and taking temporary possession of land under this article the undertaker must serve notice of the intended entry on the owners and occupiers of the land.
- (4) The undertaker may only remain in possession of land under this article for so long as may be reasonably necessary to carry out the maintenance of the part of the authorised development for which possession of the land was taken.
- (5) Before giving up possession of land of which temporary possession has been taken under this article, the undertaker must remove all temporary works and restore the land to the reasonable satisfaction of the owners of the land.
- (6) The undertaker must pay compensation to the owners and occupiers of land of which temporary possession is taken under this article for any loss or damage rising from the exercise in relation to the land of the provisions of this article.
- (7) Any dispute as to a person’s entitlement to compensation under paragraph (6), or as to the amount of compensation, is to be determined under Part 1 (determination of questions of disputed compensation) of the 1961 Act.
- (8) Nothing in this article affects any liability to pay compensation under section 152 (compensation in case where no right to claim in nuisance) of the 2008 Act or under any other enactment in respect of loss or damage arising from the maintenance of the authorised development, other than loss or damage for which compensation is payable under paragraph (6).
- (9) Where the undertaker takes possession of land under this article, the undertaker is not to be required to acquire the land or any interest in it.
- (10) Section 13 (refusal to give possession to acquiring authority) of the 1965 Act applies to the temporary use of land pursuant to this article to the same extent as it applies to the compulsory acquisition of land under this Order by virtue of section 125 (application of compulsory acquisition provisions) of the 2008 Act.
- (11) In this article “the maintenance period”, in relation to any part of the authorised development, means the period of 5 years beginning with the date on which that part of the authorised development is first opened for use.

### **Statutory undertakers**

- 31.**—(1) Subject to the provisions of article 22(3) (compulsory acquisition of rights), Schedule 9 (protection of interests) and paragraph (2), the undertaker may—
- (a) acquire compulsorily, or acquire new rights or impose restrictive covenants over any Order land belonging to statutory undertakers;
  - (b) extinguish the rights of, remove or reposition the apparatus belonging to statutory undertakers over or within the Order land.
- (2) Paragraph (1)(b) has no effect in relation to apparatus in respect of which the following provisions apply—
- (a) Part 3 (street works in England and Wales) of the 1991 Act; and
  - (b) article 32 (apparatus and rights of statutory undertakers in stopped up streets).

### **Apparatus and rights of statutory undertakers in stopped up streets**

32.—(1) Where a street is stopped up under article 13 (permanent stopping up of streets), any statutory utility whose apparatus is under, in, on, along or across the street has the same powers and rights in respect of that apparatus, subject to the provisions of this article, as if this Order had not been made.

(2) Where a street is stopped up under article 14 (temporary stopping up of streets) any statutory utility whose apparatus is under, in, on, over, along or across the street may, and if reasonably requested to do so by the undertaker must—

- (a) remove the apparatus and place it or other apparatus provided in substitution for it in such other position as the utility may reasonably determine and have power to place it; or
- (b) provide other apparatus in substitution for the existing apparatus and place it in such position as described in sub-paragraph (a).

(3) Subject to the following provisions of this article, the undertaker must pay to any statutory utility an amount equal to the cost reasonably incurred by the utility in or in connection with—

- (a) the execution of the relocation works required in consequence of the stopping up of the street; and
- (b) the doing of any other work or thing rendered necessary by the execution of the relocation works.

(4) If in the course of the execution of relocation works under paragraph (2)—

- (a) apparatus of a better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus; or
- (b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which the existing apparatus was,

and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by the undertaker, or, in default of agreement, is not determined by arbitration to be necessary, then, if it involves cost in the execution of the relocation works exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which, apart from this paragraph, would be payable to the statutory utility by virtue of paragraph (3) is to be reduced by the amount of that excess.

(5) For the purposes of paragraph (4)—

- (a) an extension of apparatus to a length greater than the length of existing apparatus is not to be treated as a placing of apparatus of greater dimensions than those of the existing apparatus; and
- (b) where the provision of a joint in a cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole is to be treated as if it also had been agreed or had been so determined.

(6) An amount which, apart from this paragraph, would be payable to a statutory utility in respect of works by virtue of paragraph (3) (and having regard, where relevant, to paragraph (4)) must, if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on the utility any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, be reduced by the amount which represents that benefit.

(7) Paragraphs (3) to (6) do not apply where the authorised development constitutes major highway works, major bridge works or major transport works for the purposes of Part 3 (street works in England and Wales) of the 1991 Act, but instead—

- (a) the allowable costs of the relocation works are to be determined in accordance with section 85 (sharing of cost of necessary measures) of that Act and any regulations for the time being having effect under that section; and
- (b) the allowable costs are to be borne by the undertaker and the statutory utility in such proportions as may be prescribed by any such regulations.



(8) In this article—

“relocation works” means work executed, or apparatus provided, under paragraph (2); and

“statutory utility” means a statutory undertaker for the purposes of the 1980 Act or a public communications provider as defined in section 151(1) (interpretation) of the Communications Act 2003(a).

### **Recovery of costs of new connections**

**33.—**(1) Where any apparatus of a public utility undertaker or of a public communications provider is removed under article 31 (statutory undertakers) any person who is the owner or occupier of premises to which a supply was given from that apparatus is entitled to recover from the undertaker compensation in respect of expenditure reasonably incurred by that person, in consequence of the removal, for the purpose of effecting a connection between the premises and any other apparatus from which a supply is given.

(2) Paragraph (1) does not apply in the case of the removal of a public sewer but where such a sewer is removed under article 31 (statutory undertakers), any person who is—

- (a) the owner or occupier of premises the drains of which communicated with that sewer; or
- (b) the owner of a private sewer which communicated with that sewer,

is entitled to recover from the undertaker compensation in respect of expenditure reasonably incurred by that person, in consequence of the removal, for the purpose of making the drain or sewer belonging to that person communicate with any other public sewer or with a private sewerage disposal plant.

(3) This article does not have effect in relation to apparatus to which article 32 (apparatus and rights of statutory undertakers in stopped up streets) or Part 3 (street works in England and Wales) of the 1991 Act applies.

(4) In this paragraph—

“public communications provider” has the same meaning as in section 151(1) (interpretation) of the Communications Act 2003; and

“public utility undertaker” has the same meaning as in the 1980 Act.

### **Compulsory acquisition of land - incorporation of the mineral code**

**34.** Parts 2 and 3 of Schedule 2 (minerals) to the Acquisition of Land Act 1981(b) are incorporated in this Order subject to the modifications that—

- (a) paragraph 8(3) is not incorporated;
- (b) for “the acquiring authority” substitute “the undertaker”; and
- (c) for “minerals” substitute “minerals and other substances”.

### **Special category land**

**35.—**(1) Subject to paragraph (2), so much of the special category land as is required for the purposes of the exercise by the undertaker of the Order rights is discharged from all rights, trusts and incidents to which it was previously subject.

(2) Plots 10-01a and 10-01b identified in the book of reference and on the land plans are not to be discharged from the rights, trusts and incidents to which they were previously subject until the Secretary of State has certified that a scheme for the provision of replacement land as common has been implemented to the Secretary of State’s satisfaction.

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(a) 2003 c. 21.

(b) 1981 c.67. Sub-paragraph (5) of paragraph 1 of Part 1 of Schedule 2 was amended by section 67 of, and paragraph 27(3) of Schedule 9 to, the Coal Industry Act 1994 (c. 21) and paragraph 8 of Part 3 of Schedule 2 was amended by section 46 of the Criminal Justice Act 1982 (c. 48). There are other amendments to the 1981 Act which are not relevant to this Order.

(3) In this article—

“the Order rights” means rights exercisable over special category land by the undertaker under articles 19 (authority to survey and investigate land), 20 (compulsory acquisition of land), 22 (compulsory acquisition of rights), or 29 (temporary use of land for carrying out the authorised development);

“the special category land” means the land identified as forming open space and registered common land and numbered 10-01a, 10-01b, 18-19, 20-03, 20-27, 20-28, 20-32, 20-33, 20-34, 20-35, 20-36, 20-37a, 20-37c, 20-41a, 20-41c, 21-01, 21-02a, 21-02c, 21-02d, 21-12a, 21-13, 21-15, 21-16, 21-17, 22-12, 22-26, 23-04, 23-32, 23-33, 23-34, 23-35 in the book of reference and on the land plans; and

“the replacement land” means the land identified on the plan entitled “replacement land plan”.

## PART 6

### OPERATION

#### **Restriction on executing works**

**36.**—(1) Regardless of anything contained in the 1980 Act or in any other enactment no person is to enter upon, break up or interfere with Work No. 1a and 1b, or any slip road for the purpose of installing any main, pipe or wire or executing any work in, on or under Work No. 1a and 1b or any slip road.

(2) Subject to paragraph (1) and paragraph (3), regardless of anything contained in the 1980 Act or in any other enactment no person is to enter upon, break up or interfere with any scheduled work, including the carriageways, footways, verges and embankments of such works, authorised by this Order, except with the consent of the undertaker and in accordance with such terms or conditions and subject to such charges as the undertaker may determine.

(3) The consent of the undertaker to the breaking up of and interference with any of the works or the carriageways and footways of any work, or any of the Order land for the purposes of installing water mains, water pipes or electric lines in them is not to be withheld unreasonably and any question which may arise as to whether such consent is so withheld or as to whether the terms and conditions subject to which any such consent is given are reasonable is to be resolved by an arbitrator under article 45 (arbitration).

#### **Existing powers and duties of the undertaker**

**37.** Except as expressly provided, nothing in this Order is to prejudice the operation of, and the powers and duties of the undertaker under the 1980 Act, the 1991 Act and the Town and Country Planning (General Permitted Development) (England) Order 2015(a).

## PART 7

### MISCELLANEOUS AND GENERAL

#### **Felling or lopping of trees**

**38.**—(1) The undertaker may fell or lop any tree or shrub within or overhanging land within the Order limits, or cut back its roots, if it reasonably believes it to be necessary to do so to prevent the tree or shrub—

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(a) 2015/596.

- (a) from obstructing or interfering with the construction, maintenance or operation of the authorised development or any apparatus used in connection with the authorised development; or
- (b) from constituting a danger to persons using the authorised development.

(2) In carrying out any activity authorised by paragraph (1), the undertaker must do no unnecessary damage to any tree or shrub and must pay compensation to any person for any loss or damage arising from such activity.

(3) Any dispute as to a person's entitlement to compensation under paragraph (2), or as to the amount of compensation, is to be determined under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

### **Trees subject to tree preservation orders**

**39.**—(1) The undertaker may fell or lop any tree described in Schedule 8 (trees subject to tree preservation orders), cut back its roots or undertake such other works described in column (2) of that Schedule if the undertaker reasonably believes it to be necessary to do so to prevent the tree or shrub—

- (a) from obstructing or interfering with the construction, maintenance or operation of the authorised development or any apparatus used in connection with the authorised development; or
- (b) from constituting a danger to persons using the authorised development.

(2) In carrying out any activity authorised by paragraph (1)—

- (a) the undertaker is to do no unnecessary damage to any tree or shrub and must pay compensation to any person for any loss of damage arising from such activity; and
- (b) the duty contained in section 206(1) (replacement of trees) of the 1990 Act is not to apply.

(3) The authority given in paragraph (1) constitutes a deemed consent under the relevant tree preservation order.

(4) Any dispute as to a person's entitlement to compensation under paragraph (2), or as to the amount of compensation, is to be determined under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

### **Operational land for purposes of the 1990 Act**

**40.** Development consent granted by this Order is to be treated as specific planning permission for the purposes of section 264(3)(a) (cases in which land is to be treated as operational land for the purposes of that Act) of the 1990 Act.

### **Defence to proceedings in respect of statutory nuisance**

**41.**—(1) Where proceedings are brought under section 82(1) (summary proceedings by persons aggrieved by statutory nuisances) of the Environmental Protection Act 1990(a) in relation to a nuisance falling within paragraphs (c), (d), (e), (fb), (g), (ga) and (h) of section 79(1) (statutory nuisances and inspections therefor) of that Act no order is to be made, and no fine may be imposed, under section 82(2) of that Act if—

- (a) the defendant shows that the nuisance—
  - (i) relates to premises used by the undertaker for the purposes of or in connection with the construction or maintenance of the authorised development and that the nuisance is attributable to the carrying out of the authorised development in accordance with a notice served under section 60 (control of noise on construction site), or a consent

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(a) 1990 c. 43. There are amendments to this Act which are not relevant to this Order.

given under section 61 (prior consent for work on construction site) or section 65 (noise exceeding registered level), of the Control of Pollution Act 1974(a); or

(ii) is a consequence of the construction or maintenance of the authorised development and that it cannot reasonably be avoided; or

(b) the defendant shows that the nuisance is a consequence of the use of the authorised development and that it cannot reasonably be avoided.

(2) Section 61(9) (consent for work on construction site to include statement that it does not of itself constitute a defence to proceedings under section 82 of the Environmental Protection Act 1990) of the Control of Pollution Act 1974 and section 65(8) (corresponding provision in relation to consent for registered noise level to be exceeded) of that Act, do not apply where the consent relates to the use of premises by the undertaker for the purposes of or in connection with the construction or maintenance of the authorised development.

### **Protection of interests**

42. Schedule 9 (protection of interests) has effect.

### **Certification of plans, etc.**

43.—(1) The undertaker must, as soon as practicable after the making of this Order, submit to the Secretary of State copies of—

- (a) the land plans (Document Reference No. 2.2, dated January 2016) which are listed in full in Schedule 11 (documents subject to certification);
- (b) the works plans (Document Reference No. 2.3, dated February 2016) which are listed in full in Schedule 11 (documents subject to certification);
- (c) the engineering drawings and sections (Document Reference Nos. 2.5 - 2.9, dated March 2015);
- (d) the book of reference (Document Reference No. 4.3, dated January 2016);
- (e) the environmental statement (Document Reference No. 6.1, dated March 2015);
- (f) the outline environmental management plan (Document Reference No. 6.3/4.2, dated March 2015);
- (g) the outline construction environmental management plan (Document Reference No. 6.3/4.2, dated March 2016);
- (h) the engineering and design report (Document Reference No. 7.3, dated March 2015);
- (i) the environmental masterplan, being Annex A to the engineering and design report (Document Reference No. 7.4, dated February 2016);
- (j) the drainage strategy report (Document Reference No. 7.5, dated January 2016);
- (k) the replacement land plan (Document Reference 514451-MUH-ML-ZZ-SK-LR-301458, dated March 2015); and
- (l) the flood risk assessment (Document Reference No. 5.3, dated February 2016),

for certification that they are true copies of the plans or documents referred to in this Order.

(2) A plan or document so certified is admissible in any proceedings as evidence of the contents of the document of which it is a copy.

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(a) 1974 c. 40. Section 61(2) was amended by section 133(2) of, and Schedule 7 to, the Building Act 1984 (c. 55). Sections 61(9) and 65(8) were amended by section 162 of, and paragraph 15 of Schedule 3 to, the Environmental Protection Act 1990 (c. 25).

## Service of notices

44.—(1) A notice or other document required or authorised to be served for the purposes of this Order may be served—

- (a) by post;
- (b) by delivering it to the person on whom it is to be served or to whom it is to be given or supplied; or
- (c) with the consent of the recipient and subject to paragraphs (5) to (8) by electronic transmission.

(2) Where the person on whom a notice or other document to be served for the purposes of this Order is a body corporate, the notice or document is duly served if it is served on the secretary or clerk of that body.

(3) For the purposes of section 7 (references to service by post) of the Interpretation Act 1978<sup>(a)</sup> as it applies for the purposes of this article, the proper address of any person in relation to the service on that person of a notice or document under paragraph (1) is, if that person has given an address for service, that address, and otherwise—

- (a) in the case of the secretary or clerk of a body corporate, the registered or principal office of that body; and
- (b) in any other case, the last known address of that person at the time of service.

(4) Where for the purposes of this Order a notice or other document is required or authorised to be served on a person as having any interest in, or as the occupier of, land and the name or address of that person cannot be ascertained after reasonable enquiry, the notice may be served by—

- (a) addressing it to that person by name or by the description of “owner”, or as the case may be “occupier”, of the land (describing it); and
- (b) either leaving it in the hands of a person who is or appears to be resident or employed on the land or leaving it conspicuously affixed to some building or object on or near the land.

(5) Where a notice or other document required to be served or sent for the purposes of this Order is served or sent by electronic transmission the requirement is taken to be fulfilled only where—

- (a) the recipient of the notice or other document to be transmitted has given consent to the use of electronic transmission in writing or by electronic transmission;
- (b) the notice or document is capable of being accessed by the recipient;
- (c) the notice or document is legible in all material respects; and
- (d) the notice or document is in a form sufficiently permanent to be used for subsequent reference.

(6) Where the recipient of a notice or other document served or sent by electronic transmission notifies the sender within 7 days of receipt that the recipient requires a paper copy of all or part of that notice or other document the sender will provide such a copy as soon as reasonably practicable.

(7) Any consent to the use of electronic communication given by a person may be revoked by that person in accordance with paragraph (8).

(8) Where a person is no longer willing to accept the use of electronic transmission for any of the purposes of this Order—

- (a) that person must give notice in writing or by electronic transmission revoking any consent given by that person for that purpose; and
- (b) such revocation will be final and takes effect on a date specified by the person in the notice but that date must not be less than 7 days after the date on which the notice is given.

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(a) 1978 c. 30.

(9) This article does not exclude the employment of any method of service not expressly provided for by it.

(10) In this article “legible in all material respects” means that the information contained in the notice or document is available to that person to no lesser extent than it would be if served, given or supplied by means of a notice or document in printed form.

### **Arbitration**

**45.** Except where otherwise expressly provided for in this Order and unless otherwise agreed between the parties, any difference under any provision of this Order (other than a difference which falls to be determined by the tribunal) must be referred to and settled by a single arbitrator to be agreed between the parties or, failing agreement, to be appointed on the application of either party (after giving notice in writing to the other) by the President of the Institution of Civil Engineers.

### **Traffic regulation**

**46.—(1)** This article applies to roads in respect of which the undertaker is not the traffic authority.

(2) Subject to the provisions of this article, and the consent of the traffic authority in whose area the road concerned is situated, which consent must not be unreasonably withheld, the undertaker may, for the purposes of the authorised development—

- (a) revoke, amend or suspend in whole or in part any order made, or having effect as if made, under the 1984 Act;
- (b) permit, prohibit or restrict the stopping, waiting, loading or unloading of vehicles on any road;
- (c) authorise the use as a parking place of any road;
- (d) make provision as to the direction or priority of vehicular traffic on any road; and
- (e) permit or prohibit vehicular access to any road,

either at all times or at times, on days or during such periods as may be specified by the undertaker.

(3) Subject to paragraph (7), the power conferred by paragraph (2) cannot be exercised after the expiry of 12 months from the opening of the authorised development for public use, but any prohibition, restriction or other provision made under paragraph (2) may have effect both before and after the expiry of that period.

(4) The undertaker must consult the chief officer of police and the traffic authority in whose area the road is situated before complying with the provisions of paragraph (5).

(5) The undertaker must not exercise the powers conferred by paragraph (2) unless the undertaker has—

- (a) given not less than—
  - (i) 12 weeks’ notice in writing of the undertaker’s intention to do so in the case of a prohibition, restriction or other provision intended to have effect permanently; or
  - (ii) 4 weeks’ notice in writing of the undertaker’s intention to do so in the case of a prohibition, restriction or other provision intended to have effect temporarily,to the chief officer of police and to the traffic authority in whose area the road is situated; and
- (b) advertised the undertaker’s intention in such manner as the traffic authority may specify in writing within 28 days of its receipt of notice of the undertaker’s intention in the case of sub-paragraph (a)(i), or within 7 days of its receipt of notice of the undertaker’s intention in the case of sub-paragraph (a)(ii).

(6) Any prohibition, restriction or other provision made by the undertaker under paragraph (2)—

- (a) has effect as if duly made by, as the case may be—
  - (i) the traffic authority in whose area the road is situated, as a traffic regulation order under the 1984 Act; or
  - (ii) the local authority in whose area the road is situated, as an order under section 32 (power of local authorities to provide parking places) of the 1984 Act<sup>(a)</sup>, and the instrument by which it is effected may specify savings and exemptions to which the prohibition, restriction or other provision is subject; and
- (b) is deemed to be a traffic order for the purposes of Schedule 7 (road traffic contraventions subject to civil enforcement) to the Traffic Management Act 2004<sup>(b)</sup>.

(7) Any prohibition, restriction or other provision made under this article may be suspended, varied or revoked by the undertaker from time to time by subsequent exercise of the powers conferred by paragraph (2) within a period of 24 months from the opening of the authorised development.

(8) Before exercising the powers conferred by paragraph (2) the undertaker must consult such persons as the undertaker considers necessary and appropriate and must take into consideration any representations made to the undertaker by any such person.

(9) Expressions used in this article and in the 1984 Act have the same meaning in this article as in that Act.

(10) The powers conferred on the undertaker by this article with respect to any road have effect subject to any agreement entered into by the undertaker with any person with an interest in (or who undertakes activities in relation to) premises served by the road.

(11) If a traffic authority which receives an application for consent under paragraph (2) fails to notify the undertaker of its decision before the end of the period of 6 weeks beginning with the date on which the application was made, it is deemed to have granted consent.

#### **Procedure in relation to certain approvals etc.**

47.—(1) Where an application is made to or a request is made of a discharging authority or the Secretary of State for any consent, agreement or approval required or contemplated by any of the provisions of the Order such consent, agreement or approval must, if given, be given in writing and must not be unreasonably withheld.

(2) Schedule 12 (procedure for discharge of certain approvals) has effect in relation to all agreements or approvals granted, refused or withheld by a discharging authority, but does not apply to any decision of the Secretary of State to which the procedure under Part 2 of Schedule 2 (procedure for discharge of requirements) applies.

(3) For the purposes of this Order “discharging authority” means a relevant planning authority, a highway authority, a street authority or the owner of a watercourse, sewer or drain.

#### **Application of sections 91(3A) and (3B) of the 1990 Act**

48. For the purposes of this Order, sections 91(3A) and (3B) (general condition limiting duration of planning permission) of the 1990 Act applies in the circumstances set out in those provisions to extend the time limit specified in paragraph 2 of Schedule 2 (requirements) as if this Order was a planning permission granted pursuant to that Act.

Signed by authority of the Secretary of State for Transport

*[Claire Perry]*  
[Parliamentary Under Secretary of State]  
Department for Transport

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(a) Section 32 was amended by section 102 of, and Schedule 17 to, the Local Government Act 1985 (c. 51) and section 168(1) of, and paragraph 39 of Schedule 8 to, the 1991 Act.  
(b) 2004 c. 18.

[Address]  
Date: 201[\*]

[Martin Woods]  
[Head of the Transport and Works Act Orders Unit]  
Department for Transport

## SCHEDULES

### SCHEDULE 1

Article 2

### AUTHORISED DEVELOPMENT

**In the administrative areas of West Berkshire Council, Wokingham Borough Council, Reading Borough Council, the Royal Borough of Windsor and Maidenhead, Bracknell Forest Council, Buckinghamshire County Council, South Bucks District Council, Slough Borough Council, the London Borough of Hillingdon, the London Borough of Hounslow and the Greater London Authority**

*Work No. 1a* – The improvement of the eastbound carriageway of the M4 Motorway (51.3 kilometres in length) commencing at grid reference 465337E; 171339N and terminating at grid reference 510045E; 178287N; and

*Work No. 1b* – The improvement of the westbound carriageway of the M4 Motorway (51.3 kilometres in length) commencing at grid reference 510079E; 178265N and terminating at grid reference 465313E; 171333N;

such works including—

- (a) conversion of the existing hard shoulder to a running lane;
- (b) the provision of a hardened central reserve with a rigid concrete barrier dividing Works No. 1a and 1b;
- (c) the construction of 18 no. super-span portal gantries above the M4 motorway each spanning both Works No. 1a and 1b, as shown on drawing 514451-MUH-ST-ZZ-DR-GN-301411 of the engineering drawings and sections, within the gantry siting locations shown as “Gantry Type 1” on the works plans, including gantry foundations, gantry structure, signs, signals, sign illumination, control cabinets, power and communication cable connections;
- (d) the construction of 5 no. single carriageway portal gantries above the M4 motorway each spanning either Works No. 1a or 1b, as shown on drawing 514451-MUH-ST-ZZ-DR-GN-301412 of the engineering drawings and sections, within the gantry siting locations shown as “Gantry Type 2” on the works plans, including gantry foundations, gantry structure, signs, signals, sign illumination, control cabinets, power and communication cable connections;
- (e) the construction of 24 no. super-span cantilever gantries above the M4 over either Works No. 1a or 1b, as shown on drawing 514451-MUH-ST-ZZ-DR-GN-301413 of the engineering drawings and sections, within the gantry siting locations shown as “Gantry Type 3” on the works plans, including gantry foundations, gantry structure, signs, signals, sign illumination, control cabinets, power and communication cable connections;
- (f) the construction of 25 no. sign-only cantilever gantries above the M4 over either Works No. 1a or 1b, as shown on drawing 514451-MUH-ST-ZZ-DR-GN-301414 of the engineering drawings and sections, within the gantry siting locations shown as “Gantry Type 4” on the works plans, including gantry foundations, gantry structure, signs, sign illumination, control cabinets, power cable connections;



- (g) the construction of 51 no. MS4 signal cantilever gantries above the M4 over either Works No. 1a or 1b, as shown on drawing 514451-MUH-ST-ZZ-DR-GN-301415 and 514451-MUH-ST-ZZ-DR-GN-301416 of the engineering drawings and sections, within the gantry siting locations shown as “Gantry Type 5” on the works plans, including gantry foundations, gantry structure, signals, control cabinets, power and communication cable connections;
- (h) the construction of 7 no. MS3 signal cantilever gantries above the M4 over either Works No. 1a or 1b, as shown on drawing 514451-MUH-ST-ZZ-DR-GN-301417 of the engineering drawings and sections, within the gantry siting locations shown as “Gantry Type 6” on the works plans, including gantry foundations, gantry structure, signals, control cabinets, power and communication cable connections;
- (i) the construction of new signs and signals on 7 no. re-used portal gantries above the M4 over either Works No. 1a or 1b, within the gantry siting locations shown as “Re-used Gantry Type 7” on the works plans, including removal of existing signs and signals, refurbishment of gantry structure, signs, signals, sign illumination, control cabinets and power and communication cable connections;
- (j) the provision of new signals on 20 no. re-used cantilever gantries above the M4 over either Works No. 1a or 1b, within the gantry siting locations shown as “Re-used Gantry Type 8” on the works plans, including removal of existing signs and signals, refurbishment of gantry structure, signals, control cabinets and power and communication cable connections;
- (k) the demolition of 41 no. existing gantries above the M4 within the gantry siting locations shown as “Demolish Gantry” on the works plans, including decommissioning, demolition to ground level and removal from site;
- (l) the construction of 17 no. emergency refuge areas on the eastbound carriageway of the M4 motorway at the locations shown by “ERA” on the works plans, including the installation of emergency telephones;
- (m) the construction of 16 no. emergency refuge areas on the westbound carriageway of the M4 motorway at the locations shown by “ERA” on the works plans, including the installation of emergency telephones;
- (n) the construction of 5 no. police observation platforms on the eastbound carriageway of the M4 motorway at the locations shown by “POP” on the works plans;
- (o) the construction of 4 no. police observation platforms on the westbound carriageway of the M4 motorway at the locations shown by “POP” on the works plans; and
- (p) the construction and installation of 139 no. closed circuit television camera supports on the M4 motorway at the locations shown by a camera icon on the works plans.

#### **In the administrative area of West Berkshire Council**

*Work No. 2a* – The realignment of the M4 Junction 12 (Theale) eastbound on-slip commencing at grid reference 465236E; 171427N and terminating at grid reference 465627E; 171163N.

*Work No. 2b* – The realignment of the M4 Junction 12 (Theale) westbound off-slip commencing at grid reference 465643E; 171122N and terminating at grid reference 465192E; 171383N.

*Work No. 3a* – The realignment of the Reading Motorway Service Area eastbound off-slip commencing at grid reference 467119E; 170000N and terminating at grid reference 467427E; 169953N.

*Work No. 3b* – The realignment of the Reading Motorway Service Area eastbound on-slip commencing at grid reference 467443E; 169947N and terminating at grid reference 467762E; 169738N.

*Work No. 3c* – The realignment of the Reading Motorway Service Area westbound off-slip commencing at grid reference 467783E; 169699N and terminating at grid reference 467432E; 469710N.

*Work No. 3d* – The realignment of the Reading Motorway Service Area westbound on-slip commencing at grid reference 467424E; 169713N and terminating at grid reference 467118E; 169965N.

**In the administrative area of Wokingham Borough Council and Reading Borough Council**

*Work No. 4a* – The realignment of the M4 Junction 11 (Three Mile Cross) eastbound off-slip commencing at grid reference 470765E; 169102N and terminating at grid reference 471343E; 168783N.

*Work No. 4b* – The realignment of the M4 Junction 11 (Three Mile Cross) eastbound on-slip commencing at grid reference 471807E; 168641N and terminating at grid reference 472477E; 168653N.

*Work No. 4c* – The realignment of the M4 Junction 11 (Three Mile Cross) westbound off-slip commencing at grid reference 472539E; 168637N and terminating at grid reference 471850E; 168576N.

*Work No. 4d* – The realignment of the M4 Junction 11 (Three Mile Cross) westbound on-slip commencing at grid reference 471298E; 168737N and terminating at grid reference 470873E; 169006N.

**In the administrative area of Wokingham Borough Council**

*Work No. 5a* – The realignment of the M4 Junction 10 (Winnersh) eastbound off-slip commencing at grid reference 478879E; 170222N and terminating at grid reference 479314E; 170512N.

*Work No. 5b* – The improvement of the M4 Junction 10 (Winnersh) eastbound on-slip (1) commencing at grid reference 479492E; 170769N and terminating at grid reference 479658E; 170850N.

*Work No. 5c* – The realignment of the M4 Junction 10 (Winnersh) eastbound on-slip (2) commencing at grid reference 479797E; 171075N and terminating at grid reference 480403E; 171420N.

*Work No. 5d* – The realignment of the M4 Junction 10 (Winnersh) westbound off-slip commencing at grid reference 480708E; 171550N and terminating at grid reference 480159E; 171151N.

*Work No. 5e* – The improvement of the M4 Junction 10 (Winnersh) westbound on-slip (1) commencing at grid reference 479941E; 170955N and terminating at grid reference 479741E; 170888N.

*Work No. 5f* – The realignment of the M4 Junction 10 (Winnersh) westbound on-slip (2) commencing at grid reference 479576E; 170692N and terminating at grid reference 479056E; 170283N.

**In the administrative area of the Royal Borough of Windsor and Maidenhead**

*Work No. 6a* – The realignment of the M4 Junction 8/9 (Holyport) eastbound off-slip commencing at grid reference 487916E; 178093N and terminating at grid reference 488542E; 178548N.

*Work No. 6b* – The realignment of the M4 Junction 8/9 (Holyport) eastbound on-slip commencing at grid reference 488854E; 178630N and terminating at grid reference 489729E; 178617N and widening of the eastbound carriageway of the M4 motorway at the location of Ascot Road overbridge.

*Work No. 6c* – The realignment of the M4 Junction 8/9 (Holyport) westbound off-slip commencing at grid reference 489576E; 178580N and terminating at grid reference 488851E;

178561N and widening of the westbound carriageway of the M4 motorway at the location of the existing Ascot Road overbridge.

*Work No. 6d* – The realignment of the M4 Junction 8/9 (Holyport) westbound on-slip commencing at grid reference 488563E; 178475N and terminating at grid reference 487980E; 178112N.

*Work No. 7a* – Construction of a new bridge over the M4 to the east of the existing Ascot Road overbridge, demolition of the existing bridge and the realignment of Ascot Road commencing at grid reference 489273E; 178303N and terminating at grid reference 489488E; 178831N.

*Work No. 7b* – The construction of a new retaining wall below grade at the eastern side of Ascot Road in the realigned section north of the M4 motorway at the location shown on the works plans.

*Work No. 8a* – The widening of the eastbound carriageway of the M4 motorway on the north side at the location of the existing Monkey Island Lane overbridge commencing at grid reference 490874E; 179161N and terminating at grid reference 491117E; 179361N.

*Work No. 8b* – The widening of the westbound carriageway of the M4 motorway on the south side at the location of the existing Monkey Island Lane overbridge commencing at grid reference 491076E; 179284N and terminating at grid reference 490958E; 179189N.

*Work No. 8c* – The construction of a new bridge over the M4 to the west of the existing Monkey Island Lane overbridge, demolition of the existing Monkey Island Lane overbridge, the realignment of Monkey Island Lane commencing at grid reference 490815E; 179422N and terminating at grid reference 491158E; 179115N and the extension of 2 no. flood channel culverts under Monkey Island Lane at the locations shown on the works plans.

#### **In the administrative areas of the Royal Borough of Windsor and Maidenhead and Buckinghamshire County Council, South Bucks District Council**

*Work No. 9a* – The widening of the M4 motorway at the location of the existing Thames Bray underbridge commencing at grid reference 491117E; 179361N and terminating at grid reference 491608E; 179713N, including realignment of the M4 central reserve and realignment of the footway and cycle way along the motorway.

*Work No. 9b* – The widening of Thames Bray underbridge over the River Thames to the north of the existing bridge at the location shown on the works plans including widening of foundations, substructure and bridge deck and replacement of bridge expansion joints to accommodate Work 9a.

#### **In the administrative area of Buckinghamshire County Council, South Bucks District Council**

*Work No. 10a* – The widening of the eastbound carriageway of the M4 motorway on the north side at the location of the existing Marsh Lane overbridge commencing at grid reference 491720E; 179753N and terminating at grid reference 491879E; 179796N.

*Work No. 10b* – The widening of the westbound carriageway of the M4 motorway on the south side at the location of the existing Marsh Lane overbridge commencing at grid reference 491890E; 179765N and terminating at grid reference 491599E; 179670N.

*Work No. 10c* – The realignment of Marsh Lane commencing at grid reference 491645E; 179930N and terminating at grid reference 491950E; 179567N, including construction of retaining walls, raising of earthworks, demolition of the existing Marsh Lane overbridge over the M4 and construction of a new bridge over the M4.

*Work No. 11a* – The widening of the eastbound carriageway of the M4 motorway on the north side at the location of the existing Lake End Road overbridge commencing at grid reference 492816E; 180033N and terminating at grid reference 492943E; 180064N.

*Work No. 11b* – The widening of the westbound carriageway of the M4 motorway on the south side at the location of the existing Lake End Road overbridge commencing at grid reference 492932E; 180018N and terminating at grid reference 492820E; 179994N.

*Work No. 11c* – The construction of a new bridge over the M4 to the west of the existing Lake End Road overbridge, the demolition of the existing Lake End Road overbridge, the realignment of Lake End Road commencing at grid reference 492866E; 179741N and terminating at grid reference 492948E; 180346N, and the provision of a new junction between Lake End Road and Huntercombe Lane.

**In the administrative area of Buckinghamshire County Council, South Bucks District Council and Slough Borough Council**

*Work No. 12a* – The realignment of the M4 Junction 7 (Huntercombe) eastbound off-slip commencing at grid reference 493056E; 180075N and terminating at grid reference 493372E; 180147N.

*Work No. 12b* – The realignment of the M4 Junction 7 (Huntercombe) eastbound on-slip commencing at grid reference 493451E; 180142N and terminating at grid reference 493784E; 179933N.

*Work No. 12c* – The realignment of the M4 Junction 7 (Huntercombe) westbound off-slip commencing at grid reference 493474E; 180003N and terminating at grid reference 493210E; 179964N.

*Work No. 12d* – The realignment of the M4 Junction 7 (Huntercombe) westbound on-slip commencing at grid reference 493194E; 179963N and terminating at grid reference 492823E; 180002N.

*Work No. 12e* – The construction of a new bridge for the southbound carriageway of the Junction 7 Link Road (Huntercombe Spur) over the M4 to the east of the existing Huntercombe Spur overbridge, demolition of the existing Huntercombe Spur overbridge, construction of a new bridge for the northbound carriageway of the Junction 7 Link Road (Huntercombe Spur) over the M4 and the realignment of the Junction 7 Link Road (Huntercombe Spur) commencing at grid reference 493202E; 179964N and terminating at grid reference 493446E; 180749N together with the construction of a new super-span cantilever gantry above the south bound carriageway of the Junction 7 Link Road (Huntercombe Spur) within the gantry siting location shown as “Gantry Type 3” on the works plans, including gantry foundations , gantry structure, signs, signals, sign illumination, control cabinets, and power cable connections.

*Work No. 12f* – The construction of a new retaining wall between the Junction 7 Link Road (Huntercombe Spur) and the Junction 7 eastbound on-slip at the location shown on the works plans.

**In the administrative area of Slough Borough Council**

*Work No. 13a* – The realignment of the M4 Junction 7 (Huntercombe) eastbound off-slip commencing at grid reference 493056E; 180075N and terminating at grid reference 493372E; 180147N.

*Work No. 13b* – The widening of the westbound carriageway of the M4 motorway on the south side at the location of the existing Oldway Lane overbridge commencing at grid reference 493986E; 179828N and terminating at grid reference 493883E; 179860N.

*Work No. 13c* – The realignment of Oldway Lane commencing at grid reference 493877E; 179650N and terminating at grid reference 494017E; 180130N, including construction of retaining walls, raising of earthworks, demolition of the existing Oldway Lane overbridge over the M4 and construction of a new bridge over the M4.

*Work No. 14a* – The widening of the eastbound carriageway of the M4 motorway on the north side at the location of the existing Wood Lane overbridge commencing at grid reference 494937E; 179555N and terminating at grid reference 495073E; 179510N.

*Work No. 14b* – The widening of the westbound carriageway of the M4 motorway on the south side at the location of the existing Wood Lane overbridge commencing at grid reference 495079E; 179477N and terminating at grid reference 494941E; 179522N.

*Work No. 14c* – The construction of a new bridge over the M4 to the east of the existing Wood Lane overbridge, the demolition of the existing Wood Lane overbridge and the realignment of Wood Lane commencing at grid reference 494859E; 179384N and terminating at grid reference 495124E; 179765N.

*Work No. 15* – The extension of Chalvey Culvert to both north and south at the location shown on the works plans to accommodate Works 16a and 16d.

*Work No. 16a* – The realignment of the M4 Junction 6 (Chalvey) eastbound off-slip commencing at grid reference 495259E; 179448N and terminating at grid reference 495873E; 179259N.

*Work No. 16b* – The realignment of the M4 Junction 6 (Chalvey) eastbound on-slip commencing at grid reference 496277E; 179133N and terminating at grid reference 497074E; 179076N.

*Work No. 16c* – The realignment of the M4 Junction 6 (Chalvey) westbound off-slip commencing at grid reference 496856E; 179034N and terminating at grid reference 496258E; 179070N, including widening of the M4 motorway to the south side at the location of the existing Windsor Branch Railway overbridge, realignment of the M4 central reserve to the south and widening the M4 earthworks embankment to the south using strengthened or retained earthworks.

*Work No. 16d* – The realignment of the M4 Junction 6 (Chalvey) westbound on-slip commencing at grid reference 495221E; 179428N and terminating at grid reference 495864E; 179204N.

*Work No. 17* – The widening of Windsor Branch Railway underbridge to the south side of the existing bridge, at the location shown on the works plans, including widening of foundations, substructure and bridge deck to accommodate Works 16b and 16c.

*Work No. 18* – The extension of the water and gas main subway under the M4 carriageway west of Datchet Road to both north and south at the location shown on the works plans including diversion of the utilities passing through the subway and closure of the existing access manholes in the hard shoulders of the M4 motorway.

#### **In the administrative area of Slough Borough Council and the Royal Borough of Windsor and Maidenhead**

*Work No. 19a* – The widening of the eastbound carriageway of the M4 motorway on the north side at the location of the existing Datchet Road overbridge commencing at grid reference 497855E; 178907N and terminating at grid reference 497983E; 178805N.

*Work No. 19b* – The widening of the westbound carriageway of the M4 motorway on the south side at the location of the existing Datchet Road overbridge commencing at grid reference 497983E; 178764N and terminating at grid reference 497844E; 178877N.

*Work No. 19c* – The construction of a new bridge over the M4 to the east of the existing Datchet Road overbridge, utility diversion works, the demolition of the existing Datchet Road overbridge and the realignment of Datchet Road commencing at grid reference 497997E; 179140N and terminating at grid reference 498157E; 178357N.

#### **In the administrative area of the Royal Borough of Windsor and Maidenhead**

*Work No. 20a* – The widening of the eastbound carriageway of the M4 motorway on the north side at the location of the existing Recreation Ground overbridge commencing at grid reference 498117E; 178655N and terminating at grid reference 498210E; 178520N.

*Work No. 20b* – The widening of the westbound carriageway of the M4 motorway on the south side at the location of the existing Recreation Ground overbridge commencing at grid reference 498182E; 178500N and terminating at grid reference 498089E; 178636N.

*Work No. 20c* – The demolition of the existing Recreation Ground overbridge over the M4 and construction of a new bridge over the M4, and the realignment of Recreation Ground Road commencing at grid reference 498022E; 178486N and terminating at grid reference 498268E; 178648N.

*Work No. 21* – The extension of the water main subway under the M4 carriageway east of Recreation Ground Road to both north and south at the location shown on the works plans including diversion of the utilities passing through the subway and closure of the existing access manholes in the hard shoulders of the M4 motorway.

*Work No. 22a* – The widening of the eastbound carriageway of the M4 motorway on the north side at the location of the existing Riding Court Road overbridge commencing at grid reference 499018E; 177547N and terminating at grid reference 499168E; 177475N.

*Work No. 22b* – The widening of the westbound carriageway of the M4 motorway on the south side at the location of the existing Riding Court Road overbridge commencing at grid reference 499178E; 177434N and terminating at grid reference 499022E; 177505N.

*Work No. 22c* – The construction of a new bridge over the M4 to the west of the existing Riding Court Road overbridge, demolition of the existing Riding Court Road overbridge, the realignment of Riding Court Road commencing at grid reference 499071E; 177252N and terminating at grid reference 499250E; 177481N, modification of a private means of access to Riding Court at its junction with Riding Court Road.

*Work No. 23a* – The widening of the eastbound carriageway of the M4 motorway on the north side at the location of the existing Ashley’s Arch Culvert commencing at grid reference 499916E; 177412N and terminating at grid reference 500069E; 177455N.

*Work No. 23b* – The extension of Ashley’s Arch Culvert to the north at the location shown on the works plans to accommodate Work No. 23a.

### **In the administrative areas of the Royal Borough of Windsor and Maidenhead and Slough Borough Council**

*Work No. 24a* – The realignment of the M4 Junction 5 (Langley) eastbound off-slip commencing at grid reference 500685E; 177740N and terminating at grid reference 501031E; 177926N.

*Work No. 24b* – The realignment of the M4 Junction 5 (Langley) eastbound on-slip commencing at grid reference 501461E; 178086N and terminating at grid reference 501971E; 178168N.

*Work No. 24c* – The realignment of the M4 Junction 5 (Langley) westbound off-slip commencing at grid reference 501906E; 178130N and terminating at grid reference 501560E; 178047N.

*Work No. 24d* – The realignment of the M4 Junction 5 (Langley) westbound on-slip commencing at grid reference 501147E; 177901N and terminating at grid reference 500662E; 177696N.

*Work No. 24e* – The widening of the eastbound carriageway of the M4 motorway on the north side at the location of the existing M4 Junction 5 (Langley) commencing at grid reference 501091E; 177937N and terminating at grid reference 501448E; 178064N.

*Work No. 24f* – The widening of the westbound carriageway of the M4 motorway on the south side at the location of the existing M4 Junction 5 (Langley) commencing at grid reference 501462E; 178027N and terminating at grid reference 501111E; 177903N.

*Work No. 24g* – The widening of Langley underbridge (West) to the north and south side of the existing Langley underbridge (West), at the location shown on the works plans, including widening of foundations, substructure and bridge deck to accommodate Work Nos. 24e and 24f.

*Work No. 24h* – The extension of Langley subway to both north and south at the location shown on the works plans to accommodate Work Nos. 24e and 24f.

*Work No. 24i* – The widening of Langley underbridge (East) to the north and south side of the existing Langley underbridge (East), at the location shown on the works plans, including widening of foundations, substructure and bridge deck to accommodate Work Nos. 24e and 24f.

#### **In the administrative areas of Buckinghamshire County Council, South Bucks District Council and Slough Borough Council**

*Work No. 25* – The demolition of the existing Old Slade Lane overbridge over the M4 and construction of a new bridge over the M4 and the realignment of Old Slade Lane commencing at grid reference 503720E; 178176N and terminating at grid reference 503729E; 178491N, including construction of retaining walls.

#### **In the administrative area of Slough Borough Council**

*Work No. 26a* – The realignment of the M4 Junction 4b (M25) eastbound off-slip and widening of the eastbound carriageway of the M4 motorway on the north side at the location of the existing Old Slade Lane overbridge commencing at grid reference 503425E; 178213N and terminating at grid reference 504178E; 178422N.

*Work No. 26b* – The realignment of the M4 Junction 4b (M25) westbound on-slip and widening of the westbound carriageway of the M4 motorway on the south side at the location of the existing Old Slade Lane overbridge commencing at grid reference 504295E; 178295N and terminating at grid reference 503420E; 178181N.

#### **In the administrative area of the London Borough of Hillingdon**

*Work No. 27a* – The realignment of the M4 Junction 4b (M25) eastbound on-slip commencing at grid reference 505255E; 178385N and terminating at grid reference 505643E; 178384N and the construction of a sign-only cantilever gantry above the on-slip within the gantry siting locations shown as “Gantry Type 4” on the works plans, including gantry foundations gantry structure, signs, sign illumination, control cabinets and power cable connections.

*Work No. 27b* – The realignment of the M4 Junction 4b (M25) westbound off-slip commencing at grid reference 505816E; 178360N and terminating at grid reference 505270E; 178321N.

*Work No. 28* – The widening of Sipson Road Subway to the south at the location shown on the works plans to accommodate Work No. 29d.

*Work No. 29a* – The realignment of the M4 Junction 4 (Heathrow) eastbound off-slip commencing at grid reference 506647E; 178535N and terminating at grid reference 507266E; 178591N.

*Work No. 29b* – The realignment of the M4 Junction 4 (Heathrow) eastbound on-slip commencing at grid reference 507862E; 178539N and terminating at grid reference 508509E; 178440N.

*Work No. 29c* – The realignment of the M4 Junction 4 (Heathrow) westbound off-slip commencing at grid reference 508250E; 178441N and terminating at grid reference 507651E; 178502N.

*Work No. 29d* – The realignment of the M4 Junction 4 (Heathrow) westbound on-slip commencing at grid reference 507455E; 177820N and terminating at grid reference 506556E; 178467N and such works including:

- (a) The construction of one no. MS3 signal cantilever gantry above the M4 over the M4 Heathrow spur northbound carriageway within the gantry siting location shown as “Gantry Type 6” on the works plans including gantry foundations, gantry structure, signals, control cabinets, power and communication cable connections; and

- (b) The construction of new signs and signals on 2 no. re-used portal gantries over the M4 Heathrow spur northbound carriageway within the gantry siting locations shown as “Re-used Gantry Type 7” on the works plans, including removal of existing signs and signals, refurbishment of gantry structure, signs, signals, sign illumination, control cabinets and power and communication cable connections.

*Work No. 30a* – The realignment of the M4 Junction 3 (Hayes) eastbound off-slip commencing at grid reference 509823E; 178312N and terminating at grid reference 510070E; 178294N.

*Work No. 30b* – The realignment of the M4 Junction 3 (Hayes) westbound on-slip commencing at grid reference 510126E; 178245N and terminating at grid reference 509520E; 178311N

and in connection with such works and to the extent that they do not otherwise form part of any such work, and whether or not shown on the plans referred to in the requirements including—

- (a) the provision of up to 9 no. construction compounds in the areas shown on the works plans;
- (b) alteration of the layout of any street permanently or temporarily, including but not limited to increasing the width of the carriageway of the street by reducing the width of any kerb, footpath, footway, cycle track or verge within the street; altering the level or increasing the width of any such kerb, footway, cycle track or verge; and reducing the width of the carriageway of the street;
- (c) ramps, means of access, footpaths, bridleways, cycle tracks, embankments, aprons, abutments, shafts, foundations, retaining walls, wing walls, bunds, embankments, swales, fencing, boundary treatments and highway lighting including the mounting of lighting columns on the rigid concrete barrier, subject to requirement 19;
- (d) street works, including breaking up or opening a street, or any sewer, drain or tunnel under it; tunnelling or boring under a street; works to place or maintain apparatus in a street; works to alter the position of apparatus, including mains, sewers, drains and cables;
- (e) the provision of thin surface course and carriageway markings;
- (f) diversion of utilities apparatus, including gas and water pipelines and electric cables;
- (g) earthworks, including the extension of earthworks;
- (h) retaining structures;
- (i) barriers;
- (j) refurbishment works to any existing bridge or gantry;
- (k) works to alter or remove road furniture;
- (l) works to alter the course of, or otherwise interfere with a watercourse;
- (m) water supply works, foul drainage provision, surface water management systems, and culverting;
- (n) landscaping and other works to mitigate any adverse effects of the construction, maintenance or operation of the authorised development;
- (o) the provision of environmental mitigation;
- (p) works for the benefit or protection of land affected by the authorised development;
- (q) the demolition of buildings and structures within the Order limits;
- (r) site preparation works, site clearance (including fencing, vegetation removal, demolition of existing structures and the creation of alternative footpaths); earthworks (including soil stripping and storage, site levelling);
- (s) works required for the strengthening, improvement, maintenance or reconstruction of any streets; and
- (t) such other works, including contractors’ compounds, working sites, storage areas and works of demolition, as may be necessary or expedient for the purposes of or in connection with the construction of the authorised development.



**PART 1**  
**REQUIREMENTS**

**Interpretation****1.** In this Schedule—

“CEMP” means the construction environmental management plan to be submitted and approved pursuant to requirement 8 below;

“EMP” means the environmental management plan to be submitted and approved pursuant to requirement 7 below;

“European protected species” has the same meaning as in regulations 40 (European protected species of animals) and 44 (European protected species of plants) of the Conservation of Habitats and Species Regulations 2010(a); and

“HEMP” means the handover environmental management plan, being the CEMP to be developed towards the end of the construction of the authorised development to contain—

- (a) the environmental information needed for the future maintenance and operation of the authorised development;
- (b) the long-term commitments to aftercare, monitoring and maintenance activities relating to the environmental features and mitigation measures that will be required to ensure the continued long-term effectiveness of the environmental mitigation measures and the prevention of unexpected environmental impacts during the operation of the authorised development; and
- (c) a record of the consents, commitments and permissions resulting from liaison with statutory bodies.

**Time limits**

**2.** The authorised development must not commence later than the expiration of 5 years beginning with the date on which this Order comes into force.

**Detailed design**

**3.** Except where the authorised development is carried out in accordance with the plans listed in requirement 4, no part of the authorised development is to commence until details of the layout, scale, siting, design, dimensions and external appearance of Works No. 7a, 8c, 9b, 10c, 11c, 12e, 13c, 14c, 17, 19c, 20c, 22c, 24g, 24j and 25, earthworks and retaining structures comprised in the authorised development so far as they do not accord with the development shown in the plans listed in requirement 6 have been submitted to and approved by the Secretary of State, following consultation with the relevant local authority and any relevant statutory authority. The authorised development must be carried out in accordance with the details shown in the plans listed in requirement 6 or approved under this requirement.

**Gantry design**

**4.** The gantries to be constructed described as Gantry Type 5 in Schedule 1 (authorised development) of the Order are to be designed in accordance with drawing 514451-MUH-ST-ZZ-DR-GN-301415 or drawing 514451-MUH-ST-ZZ-DR-GN-301416 of the engineering drawings

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(a) S.I. 2010/490, to which there are amendments not relevant to this Order.

and sections, in accordance with details to be submitted to and approved by the Secretary of State following consultation with the relevant planning authority.

### **Carriageway surfacing**

5.—(1) Where any carriageway comprised in Work No. 1a and 1b, or any slip road is to be resurfaced as part of the authorised works, TSCS is to be provided unless otherwise approved by the Secretary of State. Any material approved by the Secretary of State as low noise surfacing shall have similar noise reduction properties as TSCS.

(2) Any resurfacing of the carriageway installed pursuant to sub paragraph (1) must be carried out using low noise surfacing material with similar (or improved) noise reduction properties to the TSCS unless otherwise approved by the Secretary of State following consultation with the relevant planning authority.

### **Engineering drawings, sections and other information**

6.—(1) The authorised development must be carried out in accordance with the approved plans submitted with the application (unless otherwise approved by the Secretary of State, following consultation with the relevant planning authority and provided that the altered development accords with the principles of the engineering and design report (Application Document Reference No. 7.3) and falls within the Order limits) as listed in Schedule 13 (engineering drawings, sections and other information).

(2) Where any alternative details are approved pursuant to this requirement or requirements 3 or 20, those details are to be deemed to be substituted for the corresponding approved details set out in Schedule 13 (engineering drawings, sections and other information).

### **Environmental Management Plan**

7.—(1) No part of the authorised development is to commence until an EMP, substantially in accordance with the outline EMP (Application Document Reference No. 6.3, Appendix 4.2), has been submitted to and approved by the Secretary of State, following consultation with the relevant planning authority and the Environment Agency.

(2) All construction work must be carried out in accordance with the approved EMP unless otherwise approved by the Secretary of State, following consultation with the relevant planning authority and the Environment Agency.

### **Construction Environmental Management Plan**

8.—(1) No part of the authorised development is to commence until a CEMP, substantially in accordance with the outline CEMP (Application Document Reference No. 6.3, Appendix 4.2A), annexed to the outline EMP (Application Document Reference No. 6.3, Appendix 4.2) has been submitted to and approved by the Secretary of State, following consultation with the Environment Agency and the relevant planning authority.

(2) The construction of the authorised development must be carried out in accordance with the CEMP.

(3) Upon completion of construction of the authorised development the CEMP must be converted into the HEMP.

(4) The authorised development must be operated and maintained in accordance with the HEMP.

### **Implementation and maintenance of landscaping**

9.—(1) No part of the authorised development is to commence until a landscaping scheme and programme has been submitted to and approved by the Secretary of State following consultation with the relevant planning authority.

(2) The landscaping scheme must reflect the mitigation measures included in the environmental masterplan annexed to the engineering and design report (Application Document Reference No. 7.3) and set out details of all proposed hard and soft landscaping works, including—

- (a) location, number, species (which must be native species), size and planting density of any proposed planting;
- (b) cultivation, importing of materials and other operations to ensure plant establishment;
- (c) details of existing trees to be retained, with measures for their protection during the construction period; and
- (d) a programme, which may relate to any part of the authorised works, or the whole, for the implementation of the landscaping scheme

(3) All landscaping works must be carried out to a reasonable standard in accordance with the relevant recommendations of appropriate British Standards or other recognised codes of good practice.

(4) The authorised development must be landscaped in accordance with the scheme and programme approved under sub-paragraph (1).

(5) Any tree or shrub planted as part of the landscaping scheme that, within a period of five years after planting, dies or becomes, in the opinion of the Secretary of State, seriously diseased, must be replaced in the first available planting season with a specimen of the same species and size as that originally planted, unless the Secretary of State gives consent to any variation.

## **Fencing**

**10.** Any permanent and temporary fencing and other means of enclosure for the authorised development must be constructed and installed in accordance with Highways England's Manual of Contract Documents for Highway Works, Volume 1 – Specification for Highway Works (consolidated edition, November 2005, as amended as at May 2014 or as amended), except where any departures from that manual are agreed by the Secretary of State, following consultation with the relevant planning authority.

## **Ecological mitigation**

**11.** Ecological mitigation of the authorised development with respect to protected species, including the provision of any mammal underpasses or tunnels, set out in the environmental masterplan (Application Document Reference No. 7.4, Annex A) and the CEMP, must be provided in accordance with the principles of guidance from Highways England's Design Manual for Roads and Bridges, Volume 10, Section 4 (Volume 10, October 1994, as amended as at May 2014 or as amended), as supported by additional guidance from the Institute of Ecology and Environmental Management, published ecological literature, and consultation with statutory and non-statutory nature conservation bodies, except where any departures from that guidance are agreed by the Secretary of State, following consultation with Natural England and the relevant planning authority.

## **Contaminated land and groundwater**

**12.—(1)** No part of the authorised development is to commence until a geotechnical design report has been produced based on and including the results of ground investigation, which will inform (where and to the extent necessary) a written scheme to deal with contaminated groundwater due to landfill (if any is identified within the report) and which has been submitted to and approved by the Secretary of State following consultation with the Environment Agency, the relevant water undertaker and the relevant planning authority.

(2) Any scheme to deal with contaminated groundwater produced in accordance with sub-paragraph (1) must be implemented as part of the authorised development.

(3) In the event that contaminated land, including groundwater, is found at any time when carrying out the authorised development which was not previously identified in the environmental

statement, the undertaker must cease construction of the authorised development in the vicinity of that contaminated land and must report it immediately to the Environment Agency, the relevant water undertaker, the relevant planning authority and the Secretary of State, and the undertaker must complete a risk assessment of the contamination.

(4) Where the Secretary of State determines that remediation is necessary, a written scheme and programme for the remedial measures to be taken to render the land fit for its intended purpose must be submitted to and approved by the Secretary of State, following consultation with the Environment Agency, the relevant water undertaker and the relevant planning authority.

(5) No remedial work constituting a material operation (as defined in section 155 (when development begins) of the 2008 Act) in respect of contamination of any land, including groundwater, within the Order limits is to be carried out until the scheme for remediation has been approved under sub-paragraph (4).

(6) Remediation must be carried out in accordance with the scheme approved under sub-paragraph (4).

(7) In this requirement ‘relevant water undertaker’ means the water undertaker within the meaning of the Water Industry Act 1991 for the land in question.

### **Protected species**

**13.—**(1) No part of the authorised development is to commence until final pre-construction survey work has been undertaken to establish whether European or nationally protected species are present on any of the land affected, or likely to be affected, by any part of the relevant works or in any of the trees and shrubs to be lopped or felled as part of the relevant works.

(2) Where a protected species is shown to be, or where there is a reasonable likelihood of it being, present, the relevant parts of the relevant works must not begin until a scheme of protection and mitigation measures or translocation of the relevant species has been submitted to and approved by the Secretary of State, following consultation with Natural England.

(3) The relevant works must be carried out in accordance with the approved scheme, and under licence where necessary, unless otherwise agreed by the Secretary of State, following consultation with Natural England.

(4) Monitoring of impacts on protected species and habitats prior to, during and after construction, together with the monitoring and management of mitigation measures, must be carried out as far as required to meet the licence requirements.

(5) In the event that any protected species are found at any time when carrying out the authorised development which were not previously identified in the environmental statement—

- (a) the finding must be reported immediately to Natural England; and
- (b) no activities requiring a protected species licence are to continue until a scheme of protection and mitigation measures for the protected species has been submitted to, and approved by, Natural England and the Secretary of State.

### **Surface water drainage**

**14.—**(1) No part of the authorised development is to commence until a surface and foul water drainage scheme has been submitted to and approved by the Secretary of State, following consultation with the relevant lead local flood authority and South East Water. The surface and foul water drainage scheme must:

- (a) include a survey of the existing drainage system in the Order land to identify areas affected by the works where repair or replacement of existing drainage infrastructure is required; and
- (b) reflect the mitigation measures in the drainage strategy report (Application Document Reference No. 7.5) and include means of pollution control.

(2) The surface and foul water drainage system must be constructed in accordance with the approved surface and foul water drainage scheme.

### **Archaeological remains**

**15.**—(1) Any archaeological remains not previously identified which are revealed when carrying out the authorised development must be investigated and recorded and reported to the Secretary of State, Historic England and the relevant planning authority by means of a technical report identifying the location for the housing of any finds.

(2) No construction operations are to take place within 10 metres of such remains for a period of 14 days from the date of such notification unless otherwise agreed by the Secretary of State, following consultation with Historic England and the relevant planning authority.

(3) If the Secretary of State is of the view that the archaeological remains require further investigation, no construction operations are to take place within 10 metres of the remains until provision has been made for the further investigation and recording of the remains in accordance with details first submitted to, and approved by, the Secretary of State, following consultation with Historic England and the relevant planning authority.

### **Written scheme of investigation**

**16.**—(1) No part of construction compound 5 is to be constructed or used, unless approved by the relevant planning authority, until a programme of archaeological work including a written scheme of investigation has been submitted to and approved by the relevant planning authority. The written scheme of investigation must include—

- (a) a programme and methodology of site investigation and recording;
- (b) a programme for post investigation assessment;
- (c) provision for analysis of the site investigation recording;
- (d) provision for publication and dissemination of the analysis and records of the site investigation;
- (e) provision to be made for archive deposition of the analysis and records of the site investigation; and
- (f) nomination of a competent person or persons/organisation to undertake the work set out within the written scheme of investigation.

(2) Construction compound 5 is not to be constructed or used other than in accordance with the written scheme of investigation approved under paragraph (1) of this requirement.

(3) The site investigation and post investigation assessment is to be completed in accordance with the programme set out in the written scheme of investigation approved under paragraph (1) of this requirement.

### **Buildings at risk**

**17.** No part of the authorised development is to be carried out in the vicinity of any buildings assessed to be at risk in the environmental statement or in the opinion of the relevant planning authority without first notifying the relevant planning authority.

### **Construction traffic management**

**18.**—(1) No part of the authorised development is to commence until a construction traffic management plan, detailing traffic management measures during construction of the authorised development and substantially in accordance with the outline construction traffic management plan annexed to the outline CEMP (Application Document Reference No. 6.3, Appendix 4.2A, Annex E), has been submitted to and approved by the Secretary of State, following consultation with the relevant planning authority.

(2) The authorised development must be constructed in accordance with the approved details.

### **Permanent lighting**

**19.**—(1) No permanent lighting forming part of the authorised development is to be installed until a written lighting scheme has been submitted to and approved by the Secretary of State, following consultation with the relevant planning authority.

(2) The authorised development must be constructed in accordance with the approved scheme, unless otherwise agreed in writing by the Secretary of State.

(3) Lighting installed as part of the authorised development must not be more than 1m higher than the existing lighting columns.

### **Amendments to approved details**

**20.** With respect to any requirement which requires the authorised development to be carried out in accordance with the details approved under this Schedule, the approved details are taken to include any amendments that may subsequently be approved.

### **Control of noise during construction of the scheme**

**21.**—(1) No part of the authorised development is to commence until a written scheme for noise management during construction of the authorised development has been submitted to and approved by the Secretary of State, following consultation with the relevant planning authority.

(2) The scheme is to set out the particulars of—

- (a) the reasonable noise management measures to be taken in relation to noise resulting from the construction of the scheduled works; and
- (b) a scheme for monitoring noise levels during the scheduled works to ensure compliance with the scheme and the effectiveness of the management measures.

(3) The scheduled works must be undertaken in accordance with the approved noise management scheme.

### **Acoustic barriers**

**22.**—(1) No part of the authorised development is to commence until details of a scheme to install or replace acoustic barriers in the locations shown on the environmental masterplan (Application Document Reference No. 7.4, Annex A), contained within the environmental statement has been submitted to and approved in writing by the Secretary of State, following consultation with the relevant planning authority.

(2) The acoustic barriers installed in accordance with the scheme approved in sub-paragraph (1) must—

- (a) match adjacent retained acoustic barriers so far as possible; and
- (b) be compliant with any engineering requirements governing the form of acoustic barriers which may be installed.

(3) Where the barriers as shown on the environmental masterplan are found not to be fit for purpose as acoustic barriers of equivalent standard to the requirements for acoustic barriers set out in the Specification for Highway Works CI.2504 or as amended whether by reason of:

- (a) their state of repair; or
- (b) their original design,

the scheme referred to in sub-paragraph (1) is to provide for their removal and replacement with acoustic barriers consistent with the requirements for acoustic barriers set out in the Specification for Highway Works CI.2504 or as amended.

(4) The approved noise management scheme must be implemented before operation of the authorised development and maintained in accordance with the details of the approved scheme, unless otherwise approved by the Secretary of State following consultation with the relevant planning authority.

### **Flood risk**

**23.**—(1) No scheduled works within Flood Zone 3 as shown on annex H to the flood risk assessment are to commence until a detailed scheme of compensation works for the effects of the authorised development upon flood risk in Flood Zone 3 (“flood compensation scheme”) has been submitted to and approved in writing by the Secretary of State, following consultation with the Environment Agency and the relevant planning authority.

(2) The flood compensation scheme must ensure that compensation works:

- (a) are carried out in accordance with the outline flood compensation scheme shown on drawing TR010019-2.3-v-20 sheets 1 to 13; or
- (b) where alternate mitigation works or measures not detailed in the flood risk assessment are proposed, demonstrate that the works or measures are at least as effective as those set out in sub-paragraph (a); and
- (c) provide sufficient compensation to ensure that the authorised development will not increase flood risk for all events up to and including the 1% annual exceedance probability plus a 20 per cent allowance for climate change.

(3) The flood compensation scheme must provide for phasing of the provision of flood risk compensation in accordance with any phasing of the construction of the authorised works.

(4) The authorised development and the flood compensation scheme must be implemented in accordance with the approved scheme.

(5) No part of the Order land situated in Flood Zone 3 plus a 20 per cent allowance for climate change is to be used for storage, except as shown on annex H to the flood risk assessment.

### **Biodiversity management strategy**

**24.**—(1) No part of the authorised development is to commence until a written strategy of biodiversity management measures has been submitted to and approved by the Secretary of State following consultation with the Environment Agency, Natural England and the relevant planning authority.

(2) The biodiversity management strategy is to include—

- (a) provision of otter ledges within culverts affected by the authorised development;
- (b) provision of otter fencing at those locations shown on the environmental masterplan (Application Document Reference No. 7.4, Annex A);
- (c) provision of bat boxes at appropriate locations within the Order limits together with arrangements for their monitoring and maintenance by local bat groups or others;
- (d) the removal or management of invasive non-native species within the Order limits; and
- (e) maximising the biodiversity potential of any soft landscaping to be provided as part of the authorised development via detailed design.

(3) The approved strategy and any measures under it must be implemented during construction and operation of any part of the authorised development.

### **Road restraint standard**

**25.** Any verge mounted road restraints to be provided as part of the authorised development must be constructed and installed in accordance with Highways England’s Requirement for Road Restraint Systems, TD 19/06 (Design Manual for Roads and Bridges, August 2006 or as amended) except where any departures from that standard are agreed by the Professional Technical Solutions directorate of Highways England.

### **Air quality monitoring and management**

**26.**—(1) No part of the authorised development is to commence until the undertaker has prepared a monitoring scheme for NO<sub>2</sub>. The monitoring scheme must:

- (a) be prepared in consultation with the relevant local authorities (“the air quality authorities”) for the Air Quality Management Areas in which the authorised development is located and where a change in air quality in excess of 0.4µg/m<sup>3</sup> is predicted in the Environmental Statement, with annual mean concentrations also above the objective value.
- (b) set out the location and specification for operation and data provision for any monitors to be installed in line with guidance on air quality monitoring issued by the Department for Environment, Food and Rural Affairs from time to time (but the duplication of existing monitoring will not be required where its data is available); and.
- (c) provide for the monitors to:
  - (i) be installed during the construction period of the authorised development;
  - (ii) be operated from the completion and opening of the authorised development for public use; and
  - (iii) remain in place for a period of three years or until the monitoring shows a continuous period of 12 months in which there is no exceedance of the annual national air quality objective or European Union limit values caused by the authorised development for the NO<sub>2</sub> monitored, whichever is the longer (“the monitoring period”).

(2) During the monitoring period, the undertaker must make all data obtained from the monitors available to the air quality authorities:

(3) The monitoring data must be accompanied by a review undertaken by a firm of air quality experts appointed by the undertaker in consultation with the air quality authorities and submitted at twelve-monthly intervals during the monitoring period. If any such review demonstrates in the opinion of the appointed firm of experts that on the balance of probabilities the authorised development has materially worsened air quality such that there are exceedances of national air quality objectives or European Union limit values, the undertaker must:

- (a) consult with the air quality authorities on a scheme of mitigation (including a programme for its implementation) within 6 months of the data review, taking into consideration any local air quality action plans adopted by each air quality authority as part of its local air quality management duties;
- (b) submit the scheme of mitigation to the Secretary of State for approval within 1 month of concluding its consultation with the relevant local authorities; and
- (c) implement the scheme of mitigation in accordance with the programme contained in the scheme of mitigation following approval by the Secretary of State.

(4) Before considering whether to approve the scheme of mitigation, the Secretary of State must consult the air quality authorities and take in to consideration any local air quality action plans adopted by an air quality authority as part of its local air quality management duties.

## PART 2

### PROCEDURE FOR DISCHARGE OF REQUIREMENTS

#### **Applications made under requirement**

1.—(1) Where an application has been made to the Secretary of State for any consent, agreement or approval required by a requirement (including agreement or approval in respect of part of a requirement) included in the Order, the Secretary of State must give notice to the undertaker of its decision on the application within a period of 8 weeks beginning with—

- (a) the day immediately following that on which the application is received by the Secretary of State;
- (b) the day immediately following that on which further information has been supplied by the undertaker under paragraph 2; or



(c) such longer period as may be agreed between the parties.

(2) Subject to sub-paragraph (3), in the event that the Secretary of State does not determine an application within the period set out in sub-paragraph (1), the Secretary of State is taken to have granted all parts of the application (without any condition or qualification) at the end of that period.

(3) Where—

- (a) an application has been made to the Secretary of State for any consent, agreement or approval required by a requirement included in this Order; and
- (b) the Secretary of State does not determine such application within the period set out in sub-paragraph (1); and
- (c) the application is accompanied by a statement that considers it likely that the subject matter of the application is to give rise to any materially new or materially worse environmental effects in comparison with the authorised development as approved,

then the application is taken to have been refused by the Secretary of State at the end of that period.

(4) With respect to any requirement that requires details to be submitted to the Secretary of State for approval under this Schedule, the details must be accompanied by a statement as to whether the subject matter of the application is likely to give rise to any new or materially worse environmental effects in comparison with the authorised development.

### **Further information**

2.—(1) In relation to any part of an application made under this Schedule, the Secretary of State may request such further information from the undertaker as is necessary to enable the Secretary of State to consider the application.

(2) In the event that the Secretary of State considers such further information to be necessary the Secretary of State must, within 21 business days of receipt of the application, notify the undertaker in writing specifying the further information required and (if applicable) to which part of the application it relates. In the event that the Secretary of State does not give such notification within this 21 day period the Secretary of State is deemed to have sufficient information to consider the application and is not thereafter entitled to request further information without the prior agreement of the undertaker.

(3) Where further information is requested under paragraph 2 in relation to part only of an application, that part is treated as separate from the remainder of the application for the purposes of calculating the time periods referred to in paragraph 2 and in this paragraph.

### **Register of requirements**

3.—(1) The undertaker must, as soon as practicable, following the making of this Order, establish and maintain in an electronic form suitable for inspection by members of the public a register of those requirements contained in Part 1 of this Schedule that provide for further approvals to be given by the Secretary of State.

(2) The register must set out in relation to each such requirement the status of the requirement, in terms of whether any approval to be given by the Secretary of State has been applied for or given, providing an electronic link to any document containing any approved details.

(3) The register must be maintained by the undertaker for a period of 3 years following completion of the authorised development.

### **Details of consultation**

4.—(1) With respect to any requirement which requires details to be submitted to the Secretary of State for approval under this Schedule, the details submitted must be accompanied by a

summary report setting out the consultation undertaken by the undertaker to inform the details submitted and the undertaker's response to that consultation.

(2) At the time of submission to the Secretary of State for approval, the undertaker must provide a copy of the summary report referred to under sub-paragraph (1) to the relevant consultees referred to in the requirement in relation to which approval is being sought from the Secretary of State.

(3) The undertaker must ensure that any consultation responses are reflected in the details submitted to the Secretary of State for approval under this Schedule, but only where it is appropriate, reasonable and feasible to do so, taking into account considerations including, but not limited to, cost and engineering practicality.

(4) Where the consultation responses are not reflected in the details submitted to the Secretary of State for approval, the undertaker must state in the summary report referred to under sub-paragraph (1), the reasons why the consultation responses have not been reflected in the submitted details.

### SCHEDULE 3

Article 13

#### PERMANENT STOPPING UP OF STREETS

##### STREETS FOR WHICH A SUBSTITUTE IS TO BE PROVIDED

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Street to be stopped up</i>	<i>(3)</i> <i>Extent of stopping up</i>	<i>(4)</i> <i>New street to be substituted</i>
<b><i>Rights of Way and Access Plans – Sheet 1</i></b>			
In the parish of Bray; in the unitary authority of Royal Borough of Windsor and Maidenhead	A330 Ascot Road	From a point starting 132 metres to the north east of (A330) Ascot Road's junction with the access road to Moor Farm, continuing in a general northerly direction for a distance of 410 metres	Reference 1–A To be substituted by a length of new highway from a point 180 metres south of Willow Drive and extending generally in a southerly direction for a distance of 420 metres
	Reference 1–a Access to properties known as Ashley and Brambles from the A330 Ascot Road, located 185 metres north east of the junction with the access road to Moor Farm	The whole access	Reference 1–1 Replacement of access to premises known as Ashley & Brambles from the A330 Ascot Road, located 185 metres north east of the junction with the access road to Moor Farm
	Reference 1–b Access to Philberds Lodge from the A330 Ascot Road, located 185 metres north east of the junction with the access road to Moor	The whole access	Reference 1–2 Replacement of access to Philberds Lodge from the A330 Ascot Road, located 185 metres north east of the junction with the access

Farm		road to Moor Farm
Reference 1–c Access to existing hardstanding area from the A330 Ascot Road, located 120 metres south of the junction with Willow Drive	The whole access	Reference 1–3 Replacement of access to existing hardstanding area from the A330 Ascot Road, located 120 metres south of the junction with Willow Drive

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***Rights of Way and Access Plans – Sheet 2***

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In the parish of Bray; in the unitary authority of the Royal Borough of Windsor and Maidenhead	Monkey Island Lane	From a point starting 105 metres to the south east of Monkey Island Lane’s junction with Old Mill Lane continuing in a general south easterly direction for a distance of 260 metres	Reference 2–A To be substituted by a length of new highway from a point 120 metres to the south east of the junction with Old Mill Lane extending generally in a south westerly direction for a distance of 275 metres
	Reference 2–a Access to field and development plot from Monkey Island Lane, located 93 metres south east of the junction with Old Mill Lane	The whole access	Reference 2–1 Replacement of access to field and development plot from Monkey Island Lane, located 93 metres south east of the junction with Old Mill Lane
	Public right of way; Bray 74/1 Monkey Island Lane and Thames Bray Bridge	From a point starting at its intersection with Monkey Island Lane and continuing in a south easterly direction for a distance of 160 metres and continuing in a generally easterly direction for a distance of 360 metres	To be substituted by a new public right of way starting at a point from its intersection with Monkey Island Lane and continuing in a south easterly direction for a distance of 160 metres and continuing within the highway boundary of the motorway realignment and bridge works in a generally easterly direction for a distance of 360 metres
In the parishes of Dorney and Taplow; in the district of South Bucks in the County of Buckinghamshire	Local cycle route (Thames Bray Bridge – northern side)	From a point at the eastern end of public right of way Bray 74/1 (eastern edge of the Thames Bray Bridge) and continuing in	To be substituted by a new local cycle route within the highway boundary of the motorway realignment and bridge works, commencing from the

		generally an easterly direction for a distance of 390 metres	eastern end of public right of way Bray 74/1 (eastern edge of the Thames Bray Bridge) and continuing in generally an easterly direction for a distance of 390 metres
In the parish of Dorney and Taplow; in the district of South Bucks in the County of Buckinghamshire	Marsh Lane Reference 2–b Access to field from Marsh Lane, located 25 metres to the north west of the junction with Oak Stubbs Lane	The whole access	Reference 2–2 Replacement of access to field from Marsh Lane, located 25 metres to the north west of the junction with Oak Stubbs Lane
	Public right of way: DOR 22/1	A length commencing 115 metres from the northern end of Old Stubbs Lane and extending for a distance of 105 metres in generally a south easterly direction initially before ‘zig-zagging’ up the embankment to its intersection with Marsh Lane	To be substituted by a new public right of way commencing 115 metres from the northern end of Old Stubbs Lane and extending for a distance of 105 metres in generally a south easterly direction initially before ‘zig-zagging’ up the embankment to its intersection with Marsh Lane; on an alignment compatible with the overbridge replacement and the alteration works
	Public right of way: DOR 23/1 – (West and East of Marsh Lane)	A length commencing 134 metres from its connection with Old Marsh Lane and extending for a distance of 90 metres measured along the existing path up to its intersection with Marsh Lane, and continuing for a further 100 metres across Marsh Lane carriageway and along the path leading to and also within Glebe Close	To be substituted by a new public right of way commencing 134 metres from its connection with Old Marsh Lane and extending for a distance of 90 metres in a northerly and then southerly direction up to its intersection with Marsh Lane; continuing for a further 100 metres across Marsh Lane carriageway and along the path leading to and also within Glebe Close; all on an alignment compatible with Marsh Lane overbridge replacement

***Rights of Way and Access Plans – Sheet 3***

In the parishes of Cippenham St Andrew and Dorney; in the district of South Bucks in the County of Buckinghamshire	Lake End Road	From a point starting 217 metres to the north of Lake End Road's junction with Ashford Lane continuing in a generally northerly direction for a distance of 285 metres	Reference 3–A To be substituted by a length of new highway from a point 217 metres to the north of Lake End Road's junction with Ashford Lane extending generally in a northerly direction for a distance of 295 metres
	Reference 3–a Access to business premises (materials recycling centre) and donkey sanctuary from Lake End Road, located 160 metres north of the junction with Ashford Lane	The whole access	Reference 3–1 Replacement of access to business premises (materials recycling centre) and donkey sanctuary from Lake End Road, located 160 metres north of the junction with Ashford Lane
	Reference 3–b Access to premises known as Four Elms and The Tithe Barn from Lake End Road, located 148 metres north of the junction with Huntercombe Lane South	The whole access	Reference 3–2 Replacement of access to premises known as Four Elms and The Tithe Barn from Lake End Road, located 148 metres north of the junction with Huntercombe Lane South
	Reference 3–c Access to field from Lake End Road, located 178 metres north of the junction with Huntercombe Lane South	The whole access	Reference 3–3 Replacement access to field from Lake End Road, located 178 metres north of the junction with Huntercombe Lane South

***Rights of Way and Access Plans – Sheet 4***

In the parish of Cippenham St Andrew; in the unitary authority of Slough Borough Council	Public right of way; Slough 49 (Part of Oldway Lane)	A length commencing 80 metres to the south of its junction with Moor Furlong and extending along the existing track, in generally a southerly direction for a distance of 265	To be substituted by a new public right of way within the highway boundaries of the overbridge replacement and alteration works, commencing 80 metres to the south of its junction with Moor Furlong and extending
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	metres	generally in a southerly direction for a distance of 265 metres
Public right of way; Slough 14/5	A length commencing at its intersection with Slough 49 and extending for a distance of 80 metres in a northerly direction initially before returning southwards	To be substituted by a new public right of way commencing at its intersection with Slough 49 and extending for a distance of 80 metres in a northerly direction initially before returning southwards; on an alignment compatible with the overbridge replacement and alteration works
Public right of way; Slough 9	A length commencing at its intersection with Slough 49 and extending for a distance of 43 metres in a northerly direction	To be substituted by a new public right of way commencing at its intersection with Slough 49 and extending for a distance of 43 metres in a northerly direction; on an alignment compatible with the overbridge replacement and alteration works

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***Rights of Way and Access Plans – Sheet 5***

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In the parish of Cippenham St Andrew; in the unitary authority of Slough Borough Council	Wood Lane	From a point commencing 30 metres from the southern side of Wood Lane’s junction with the access road (also known as Wood Lane) to Thames Water’s treatment plant and extending in a generally north easterly direction for a distance of 230 metres	Reference 5–A To be substituted by a length of new highway from a point 32 metres from the southern side of Wood Lane’s junction with the access road (also known as Wood Lane) to Thames Water’s treatment plant extending in a generally north easterly direction for a distance of 305 metres
	Reference 5–a Access to premises numbered 26 to 32 in the Wood Lane cul-de-sac located 170 metres to the south west of the entrance to Thames Water’s Sewage	The whole access	Reference 5–1 Replacement access to premises numbered 26 to 32 in the Wood Lane cul-de-sac located 170 metres to the south west of the entrance to Thames Water’s

Treatment Plant

Sewage Treatment Plant

Reference 5–b  
Access serving the Pipeline Station, other premises and public right of way, Slough 17 located 7 metres south of the Wood Lane cul–de–sac serving properties numbered 26 to 32

The whole access

Reference 5–2  
Replacement access serving the Pipeline Station, other premises and public right of way, Slough 17 located 7 metres south of the Wood Lane cul–de–sac serving properties numbered 26 to 32

Reference 5–c  
Access forming part of Wood Lane directly adjacent to the Wood Lane cul–de–sac serving properties numbered 26 to 32

The whole access

Reference 5–3  
Replacement access forming part of Wood Lane directly adjacent to the Wood Lane cul–de–sac serving properties numbered 26 to 32

Reference 5–d  
Access forming part of Wood Lane adjacent to properties numbered 18 and 16 located 25 metres north east of the Wood Lane cul–de–sac serving properties numbered 26 to 32

The whole access

Reference 5–4  
Replacement access forming part of Wood Lane adjacent to properties numbered 18 and 16 located 25 metres north east of the Wood Lane cul–de–sac serving properties numbered 26 to 32

Public right of way; Slough 14/1

A length commencing at its intersection with Wood Lane and extending for a distance of 103 metres in a generally westerly direction

To be substituted by a new public right of way for a length commencing at its intersection with Wood Lane and extending for a distance of 103 metres in a generally westerly direction; on an alignment compatible with the overbridge replacement and alteration works

Public right of way; Slough 17

A length commencing from the southern side of Wood Lane’s junction with the access road (also known as Wood Lane) to Thames Water Sewage

To be substituted by a new public right of way within the highway boundaries of the realigned Wood Lane, commencing from the southern side of Wood Lane’s junction with the access road (also

Treatment Plant and extending in a generally north easterly direction for a distance of 515 metres	known as Wood Lane) to Thames Water Sewage Treatment Plant and extending in a generally north easterly direction for a distance of 515 metres
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***Rights of Way and Access Plans – Sheet 6***

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None

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***Rights of Way and Access Plans – Sheet 7***

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In the parishes of Datchet and Upton-cum-Chalvey; in the unitary authorities of the Royal Borough of Windsor and Maidenhead Council and also Slough Borough Council	Datchet Road	From a point commencing 94 metres south of the entrance to The Mere off Datchet Road and extending in generally a southerly direction for a distance of 358 metres	Reference 7–A To be substituted by a length of new highway from a point commencing 90 metres south of the entrance to The Mere off Datchet Road and extending in generally a southerly direction for a distance of 358 metres and in addition a bus bay extending over a length of 60 metres commencing at a distance of 490 metres from the entrance to The Mere
	Reference 7–a Access to premises known as Upton Court Park from the eastern side of Datchet Road, located 46 metres south of the entrance to The Mere	The whole access	Reference 7–1 Replacement of access to premises known as Upton Court Park from the eastern side of Datchet Road, located 46 metres south of the entrance to The Mere
	Public right of way; Slough 78		New public right of way commencing at the eastern end of existing path forming Slough 78 at Datchet Road and extending for a distance of 18 metres in an easterly direction to connect with the realigned Datchet Road
In the parishes of Datchet and Upton-cum-Chalvey; in the unitary authorities	Public right of way; DATC 1/1 (includes part of National Cycle Route 61) (Recreation Ground	A length commencing from Datchet Road (B376) and extending for a distance of 265	New public right of way within the highway boundary of the overbridge replacement and alteration works,



of the Royal Borough of Windsor and Maidenhead Council	Bridge)	metres in a generally north easterly direction	commencing from Datchet Road (B376) and extending for a distance of 265 metres in a generally north easterly direction
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***Rights of Way and Access Plans – Sheet 8***

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In the parish of Datchet; in the unitary authorities of the Royal Borough of Windsor and Maidenhead Council	Riding Court Road	From a point commencing 143 metres north of Riding Court Road's junction with London Road (B470) and extending, generally in a north easterly direction for a distance of 183 metres	Reference 8–A To be substituted by a length of new highway commencing 180 metres north of Riding Court Road's junction with London Road (B470) and extending, generally in a north easterly/easterly direction for a distance of 176 metres and in addition a length of new highway 20 metres in length to the east of the improved junction (at northern kerb line)
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***Rights of Way and Access Plans – Sheet 9***

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In the parish of Iver; in the unitary authority of Slough Borough Council and the district of South Bucks in the County of Buckinghamshire	Reference 9–a Access to business interests at Old Slade Lake, operated by Boyer Fishing; commencing at the connection with public right of way IVE 20/3 and extending for a length of 305 metres in generally a southerly/south westerly direction	The extent of access described and shown on the Rights of Way and Access Plans	Reference 9–1 Replacement of access to business interests at Old Slade Lake, operated by Boyer Fishing; commencing at the connection with public right of way IVE 20/3 and extending for a length of 305 metres in generally a southerly/ south westerly direction: on an alignment compatible with the overbridge replacement and alteration works
	Public right of way; Colnbrook with Poyle 2 (Old Slade Lane)	A length commencing at its junction with public right of way Colnbrook with Poyle 6 and extending in an east to northerly direction for a distance of 305 metres	New public right of way commencing at its junction with existing public right of way Colnbrook with Poyle 6 and extending in an east to northerly direction for a distance of 305 metres; on an alignment compatible with the overbridge replacement and alteration works

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***Rights of Way and Access Plans – Sheet 10***

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None

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SCHEDULE 4  
TEMPORARY STOPPING UP OF STREETS

Article 14

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<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Street to be temporarily stopped up</i>	<i>(3)</i> <i>Extent of temporary stopping up</i>
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***Rights of Way and Access Plans – Sheet 1***

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None

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***Rights of Way and Access Plans – Sheet 2***

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In the parish of Bray; in the unitary authority of the Royal Borough of Windsor and Maidenhead	Public right of way; Bray 75/1 Monkey Island Lane and Thames Bray Bridge	From a point starting at its intersection with Monkey Island Lane and continuing in a north westerly direction for a distance of 140 metres then continuing in a generally easterly direction for a distance of 355 metres
In the parishes of Dorney; in the district of South Bucks in the County of Buckinghamshire	Public right of way; DOR 18/5 Thames Bray Bridge	From a point in-line with the southern edge of the existing bridge carrying the M4 motorway and continuing generally north westwards for a distance of 50 metres
In the parishes of Taplow; in the district of South Bucks in the County of Buckinghamshire	Public right of way; TAP 16/4 Thames Bray Bridge	From a point 50 metres (generally north eastwards) from the southern edge of the existing bridge carrying the M4 motorway and continuing generally north westwards for a distance of 30 metres
In the parishes of Dorney and Taplow; in the district of South Bucks in the County of Buckinghamshire	Part of Marsh Lane.	A length commencing 33 metres to the north west of its junction with Oak Stubbs Lane and extending along the existing highway for a distance of 310 metres

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***Rights of Way and Access Plans – Sheet 3***

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None

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***Rights of Way and Access Plans – Sheet 4***

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In the parishes of Cippenham St Andrew; in the unitary authority of Slough Borough	Public right of way; Slough 14/5	Existing path for a length of 15 metres commencing at a point measuring 80 metres
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Council

from its intersection with Slough 49 along the existing path in an easterly/northerly direction initially before returning southwards

Public right of way; Slough 9

Existing path for a length of 48 metres commencing at a point measuring 42 metres from its intersection with Slough 49 along the existing path in a north westerly direction

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***Rights of Way and Access Plans – Sheet 5***

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None

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***Rights of Way and Access Plans – Sheet 6***

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In the parish of Upton-cum-Chalvey; in the unitary authorities of Slough Borough Council and Royal Borough of Windsor and Maidenhead Council

Public right of way: Slough 32 Windsor Rail

From a point commencing 44 metres to the south west of the western side of the rail level crossing and extending along the existing path in a south westerly direction for a distance of 130m

Public right of way: Local cycle route – Chalvey High Street to Jubilee River (east) Windsor Rail

From a point commencing 30 metres to the south west of the eastern side of the rail level crossing and extending along the existing path in generally a south westerly direction for a distance of 125 metres

Public right of way: Local cycle route – Chalvey High Street to Jubilee River (west) Windsor Rail

From a point at its intersection with private right of way Slough 32 at Windsor Branch Railway Bridge and extending along the existing path in generally a western direction for a distance of 625 metres up to the connection with National Cycle Route 62

Public right of way: Slough 33A Windsor Rail

From a point commencing 30 metres to the south west of the eastern side of the rail level crossing and extending along the existing path, initially in a south westerly direction before changing direction generally to the east for a distance, overall, of 215 metres

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***Rights of Way and Access Plans – Sheet 7***

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In the parishes of Datchet and Upton-cum-Chalvey; in the unitary authorities of Slough Borough Council and Royal Borough of Windsor and Maidenhead Council	Public rights of way; Slough 78 Datchet Road	A length commencing at the eastern side of the turning area at the northern end of The Myrke and extending for 168 metres along the existing path, generally easterly on a zig-zag alignment to connect with Datchet Road
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***Rights of Way and Access Plans – Sheet 8***

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None

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***Rights of Way and Access Plans – Sheet 9***

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In the parish of Iver; in the unitary authority of Slough Borough Council and the district of South Bucks in the County of Buckinghamshire	Public right of way; IVE 20/3	A length commencing at its connection with Old Slade Lane and extending in a southerly and westerly direction for a distance of 190 metres
	Public right of way: IVE 31/2	A length commencing 9 metres from the eastern edge of the carriageway of Old Slade Lane at a distance of 105 metres north west of IVE 20/3 intersection with Old Slade Lane and continuing for a distance of 195 metres along the existing path in a south easterly/easterly direction

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***Rights of Way and Access Plans – Sheet 10***

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In the parish Colnbrook; in the unitary authority of Slough Borough Council	Public right of way; Slough 9 Langley Interchange	Total length of existing path carried by ramps, footbridge and subway commencing from the end (at ground level) of the spiral access ramp on the southern side of the roundabout forming part of Junction 5 of the M4 to the end (at ground level) of the spiral ramp on the northern side of the roundabout
In the parish of Colnbrook; in the unitary authority of Slough Borough Council	Public right of way; Slough 8 Site Compound	A length commencing at a point located 14 metres south of the access to Colnbrook Landfill Site at the eastern edge of the existing footway along the eastern side of Sutton Lane, for a distance of 190 metres along the existing path up to its intersection with the existing fence line along the northern side of London Road (A4) at a location 118

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## SCHEDULE 5

Article 22(2)

### LAND IN WHICH ONLY NEW RIGHTS ETC. MAY BE ACQUIRED

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<i>(1)</i> <i>Plot reference number shown on Land Plans</i>	<i>(2)</i> <i>Purpose for which rights over land may be acquired</i>
<hr/> <b><i>Land Plans – Sheet 2</i></b> <hr/>	
02–20, 02–22, 02–23, 02–25	At river level: permanent access for inspection and maintenance of the bridge
<hr/> <b><i>Land Plans – Sheet 19</i></b> <hr/>	
19-19, 19-19b, 19-20, 19-20a, 19-25, 19-27, 19-28a, 19-30, 19-30a, 19-33, 19-33a, 19-35, 19-35a, 19-37, 19-37a, 19-38, 19-39	At river level: permanent access for inspection and maintenance of the bridge.
19–80	At river level and river bank level: permanent access for inspection and maintenance of the bridge.

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## SCHEDULE 6

Article 22(3)

### MODIFICATION OF COMPENSATION AND COMPULSORY PURCHASE ENACTMENTS FOR CREATION OF NEW RIGHTS

#### *Compensation enactments*

1. The enactments for the time being in force with respect to compensation for the compulsory purchase of land apply, with the necessary modifications as respects compensation, in the case of a compulsory acquisition under this Order of a right by the creation of a new right or imposition of a restrictive covenant as they apply as respects compensation on the compulsory purchase of land and interests in land.

2.—(1) Without limitation on the scope of paragraph 1, the Land Compensation Act 1973(a) has effect subject to the modifications set out in sub-paragraphs (2) and (3).

(2) In section 44(1) (compensation for injurious affection), as it applies to compensation for injurious affection under section 7 of the 1965 Act as substituted by paragraph 4—

- (a) for “land is acquired or taken from” substitute “a right or restrictive covenant over land is purchased from or imposed on”; and
- (b) for “acquired or taken from him” substitute “over which the right is exercisable or the restrictive covenant enforceable”.

(3) For section 58(1) (determination of material detriment where part of house etc. proposed for compulsory acquisition)(a), as it applies to determinations under section 8 of the 1965 Act as substituted by paragraph 5, substitute—

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(a) 1973 c. 26.

“(1) In determining under section 8(1) or 34(2) of the Compulsory Purchase Act 1965, or section 166(2) of the Town and Country Planning Act 1990 whether—

- (a) a right over or a restrictive covenant affecting land consisting of a house, building or manufactory can be taken or imposed without material detriment or damage to the house, building or manufactory; or
- (b) a right over or a restrictive covenant affecting land consisting of a park or garden belonging to a house can be taken or imposed without seriously affecting the amenity or convenience of the house,

the Upper Tribunal must take into account not only the effect of the acquisition of the right or imposition of the restrictive covenant but also the use to be made of the right or restrictive covenant proposed to be acquired or imposed, and, in a case where the right or restrictive covenant is proposed to be acquired or imposed for works or other purposes extending to other land, the effect of the whole of the works and the use to be made of the other land.”.

#### *Application of the 1965 Act*

**3.—**(1) The 1965 Act has effect with the modifications necessary to make it apply to the compulsory acquisition under this Order of a right by the creation of a new right, or to the imposition under this Order of a restrictive covenant, as it applies to the compulsory acquisition under this Order of land, so that, in appropriate contexts, references in that Act to land are read (according to the requirements of the particular context) as referring to, or as including references to—

- (a) the right acquired or to be acquired, or the restrictive covenant imposed or to be imposed; or
- (b) the land over which the right is or is to be exercisable, or the restrictive covenant is or is to be enforceable.

(2) Without limitation on the scope of sub-paragraph (1), Part 1 (compulsory purchase under the Acquisition of Land Act of 1946) of the 1965 Act applies in relation to the compulsory acquisition under this Order of a right by the creation of a new right or, in relation to the imposition of a restrictive covenant, with the modifications specified in the following provisions of this Schedule.

**4.** For section 7 (measure of compensation) of the 1965 Act substitute—

“7. In assessing the compensation to be paid by the acquiring authority under this Act, regard is to be had not only to the extent (if any) to which the value of the land over which the right is to be acquired or the restrictive covenant is to be imposed is depreciated by the acquisition of the right or the imposition of the covenant but also to the damage (if any) to be sustained by the owner of the land by reason of its severance from other land of the owner, or injuriously affecting that other land by the exercise of the powers conferred by this or the special Act.”.

**5.** For section 8 (provisions as to divided land) of the 1965 Act substitute—

“**8.—**(1) Where in consequence of the service on a person under section 5 of this Act of a notice to treat in respect of a right over land consisting of a house, building or manufactory or of a park or garden belonging to a house (“the relevant land”)—

- (a) a question of disputed compensation in respect of the purchase of the right or the imposition of the restrictive covenant would apart from this section fall to be determined by the Upper Tribunal (“the tribunal”); and

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(a) Section 58(1) was amended by section 16(3) of, and Schedule 5 to, the Compulsory Purchase (Vesting Declarations) Act 1981 (c. 66), section 4 of, and paragraph 29(1) of Schedule 2 to, the Planning (Consequential Provisions) Act 1990 (c. 11) and S.I. 2009/1307.

- (b) before the tribunal has determined that question the tribunal is satisfied that the person has an interest in the whole of the relevant land and is able and willing to sell that land and—
  - (i) where that land consists of a house, building or manufactory, that the right cannot be purchased or the restrictive covenant imposed without material detriment to that land; or
  - (ii) where that land consists of such a park or garden, that the right cannot be purchased or the restrictive covenant imposed without seriously affecting the amenity or convenience of the house to which that land belongs,

the M4 Motorway (Junctions 3 to 12) (Smart Motorway) Development Consent Order 201[\*](a) (“the Order”), in relation to that person, ceases to authorise the purchase of the right or imposition of the restrictive covenant and is deemed to authorise the purchase of that person’s interest in the whole of the relevant land including, where the land consists of such a park or garden, the house to which it belongs, and the notice is deemed to have been served in respect of that interest on such date as the tribunal directs.

(2) Any question as to the extent of the land in which the Order is deemed to authorise the purchase of an interest by virtue of subsection (1) of this section is to be determined by the tribunal.

(3) Where in consequence of a determination of the tribunal that it is satisfied as mentioned in subsection (1) of this section the Order is deemed by virtue of that subsection to authorise the purchase of an interest in land, the acquiring authority may, at any time within the period of 6 weeks beginning with the date of the determination, withdraw the notice to treat in consequence of which the determination was made; but nothing in this subsection prejudices any other power of the authority to withdraw the notice.”.

6. The following provisions of the 1965 Act (which state the effect of a deed poll executed in various circumstances where there is no conveyance by persons with interests in the land), that is to say—

- (a) section 9(4) (failure by owners to convey);
- (b) paragraph 10(3) (owners under incapacity) of Schedule 1;
- (c) paragraph 2(3) (absent and untraced owners) of Schedule 2; and
- (d) paragraphs 2(3) and 7(2) (common land) of Schedule 4,

are modified so as to secure that, as against persons with interests in the land which are expressed to be overridden by the deed, the right which is to be compulsorily acquired or the restrictive covenant which is to be imposed is vested absolutely in the acquiring authority.

7. Section 11 (powers of entry) (b) of the 1965 Act is modified so as to secure that, as from the date on which the acquiring authority has served notice to treat in respect of any right or restrictive covenant it has power, exercisable in equivalent circumstances and subject to equivalent conditions, to enter for the purpose of exercising that right or enforcing that restrictive covenant (which is deemed for this purpose to have been created on the date of service of the notice); and sections 12 (penalty for unauthorised entry)(c) and 13 (entry on warrant in the event of obstruction)(d) of the 1965 Act are modified correspondingly.

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(a) S.I. 2014/2269.

(b) Section 11 was amended by section 34(1) of, and Schedule 4 to, the Acquisition of Land Act 1981 (c. 67), section 3 of, and part 1 of Schedule 1 to, the Housing (Consequential Provisions) Act 1985 (c. 71), section 14 of, and paragraph 12(1) of Schedule 5 to, the Church of England (Miscellaneous Provisions) Measure 2006 (No. 1) and S.I. 2009/1307.

(c) Section 12 was amended by section 56(2) of, and part 1 of Schedule 9 to, the Courts Act 1971 (c. 23).

(d) Section 13 was amended by sections 62(3), 139(4) to (9) and 146 of, and paragraphs 27 and 28 of Schedule 13 and part 3 of Schedule 23 to, the Tribunals, Courts and Enforcement Act 2007 (c. 15).

8. Section 20 (protection for interests of tenants at will, etc.)(a) of the 1965 Act applies with the modifications necessary to secure that persons with such interests in land as are mentioned in that section are compensated in a manner corresponding to that in which they would be compensated on a compulsory acquisition under this Order of that land, but taking into account only the extent (if any) of such interference with such an interest as is actually caused, or likely to be caused, by the exercise of the right or the enforcement of the restrictive covenant in question.

9. Section 22 (interests omitted from purchase) of the 1965 Act is modified so as to enable the acquiring authority, in circumstances corresponding to those referred to in that section, to continue to be entitled to exercise the right acquired or to enforce the restrictive covenant imposed, subject to compliance with that section as respects compensation.

## SCHEDULE 7

Article 29

### LAND OF WHICH TEMPORARY POSSESSION MAY BE TAKEN

<i>(1)</i> <i>Location</i>	<i>(2)</i> <i>Plot reference number(s) shown on Land Plans</i>	<i>(3)</i> <i>Purpose for which temporary possession may be taken</i>	<i>(4)</i> <i>Relevant part of the authorised development</i>
<b><i>Land Plans - Sheet 2</i></b>			
Section 1. District of West Berkshire	02-16, 02-17, 02-18	At railway level: temporary land required for access for inspection and possible refurbishment of bridge	1a, 1b, 2a, 2b
Section 1. District of West Berkshire	02-02a, 02-05	Land within existing highway boundary used for access to Scheme construction site and construction compound including traffic management	All works within Schedule 1
Section 1. District of West Berkshire	02-20, 02-20a, 02-20b, 02-22, 02-22a, 02-22b, 02-23, 02-23a, 02-23b, 02-25, 02-25a, 02-25b	At river and river bank level: temporary use for inspection and possible refurbishment of bridge	1a, 1b
Section 1. District of West Berkshire	02-08, 02-12	Temporary land required for use as construction compound	All works within Schedule 1

(a) Section 20 was amended by paragraph 4 of Schedule 15 to the Planning and Compensation Act 1991 (c. 34) and S.I. 2009/1307.



Section 1. District of West Berkshire	02-09, 02-10, 02-11	Temporary land required for use for access to construction compound	All works within Schedule 1
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***Land Plans - Sheet 3***

Section 1. District of West Berkshire	03-07, 03-12	Temporary use for improvement and realignment of sliproads including traffic management and cross carriageway ducting	3a, 3b, 3c, 3d
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***Land Plans - Sheet 4***

Section 1. District of West Berkshire	04-06, 04-08, 04-10	At railway level: temporary land required for access for inspection and possible refurbishment of bridge	1a, 1b
Section 1. District of West Berkshire	04-03, 04-04	Temporary use for inspection and possible refurbishment of culvert	1a, 1b

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***Land Plans - Sheet 6***

Section 3. Borough of Reading	06-03, 06-04, 06-05, 06-08	Temporary traffic management and for access to Scheme construction site	All works within Schedule 1
Section 3. Borough of Reading	06-10, 06-10a, 06-12, 06-12a, 06-12b	Temporary traffic management, including lane restrictions, to create working space for construction of the Scheme including a gantry Type 1 and realignment of Junction 11 Eastbound on slip	1a, 4b
Section 2. Borough of Wokingham	06-09b, 06-10b, 06-13, 06-14, 06-14a, 06-14b, 06-20	Temporary traffic management, including lane restrictions, to create working space for construction of the Scheme including a gantry Type 1 and realignment of	1a, 4b

Junction 11 Eastbound  
on slip

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***Land Plans - Sheet 7***

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Section 2. Borough of Wokingham	07-04, 07-05, 07-06, 07-08	Temporary use to create working space for construction of improved access to Cutbush Lane transmission station	1a
Section 2. Borough of Wokingham	07-11	Temporary use to create working space for removal of existing police observation platform	1a

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***Land Plans - Sheet 10***

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Section 2. Borough of Wokingham	10-07, 10-08, 10-09	At railway level: temporary use for inspection and possible refurbishment of bridge	1a, 1b, 5a
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***Land Plans - Sheet 17***

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Section 4. Royal Borough of Windsor and Maidenhead	17-12	Temporary use as construction compound	All works within Schedule 1
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***Land Plans - Sheet 18***

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Section 4. Royal Borough of Windsor and Maidenhead	18-02, 18-03	Temporary use as construction compound	All works within Schedule 1
Section 4. Royal Borough of Windsor and Maidenhead	18-07, 18-08	Temporary land required for access and working space to construct realigned Ascot Road and new Ascot Road overbridge including retaining wall to east side of Ascot Road	7a, 7b
Section 4. Royal Borough of Windsor and Maidenhead	18-09, 18-10, 18-17, 18-17a, 18-17b, 18-19	Temporary land required for access and working space to construct realigned Ascot Road and new Ascot Road overbridge	7a

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***Land Plans - Sheet 19***

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Section 4. Royal Borough of Windsor and Maidenhead	19-19, 19-19b, 19-20, 19-20a, 19-25, 19-27, 19-28a, 19-	At river and river bank level: temporary land required for	1a, 1b, 9a, 9b
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	30, 19–30a, 19–33, 19–33a	widening Thames Bray underbridge	
Section 6. County of Buckinghamshire, District of South Bucks	19–35, 19–35a, 19–37, 19–37a, 19–38, 19–39	At river and river bank level: temporary land required for widening Thames Bray underbridge	1a, 1b, 9a, 9b
Section 4. Royal Borough of Windsor and Maidenhead	19-02, 19-02a, 19-02b, 19-06, 19-10	Temporary land required for access and working space for online reconstruction of Monkey Island Lane and Monkey Island Lane overbridge	8c
Section 4. Royal Borough of Windsor and Maidenhead	19–11, 19-14	Temporary land required for access and working space for online reconstruction of Monkey Island Lane and Monkey Island Lane overbridge and for widening of Thames Bray underbridge, including widening of the M4 and M4 embankment	8a, 8b, 8c, 9b
Section 6. County of Buckinghamshire, District of South Bucks	19-34, 19-36, 19-40, 19-41, 19-45, 19-46, 19-47, 19-49, 19-51, 19-53, 19-54, 19-55	Temporary land for access and working space for widening of Thames Bray underbridge to the North, including widening of the M4 and M4 embankment	9a, 9b
Section 4. Royal Borough of Windsor and Maidenhead	19-11a, 19-14a, 19-16, 19-18, 19-28, 19-29, 19-21, 19-22, 19-23, 19-24, 19-26, 19-31, 19-32	Temporary land for access and working space for widening of Thames Bray underbridge to the North, including widening of the M4 and M4 embankment	8a, 8b, 9a, 9b
Section 6. County of Buckinghamshire, District of South Bucks	19–56, 19–57, 19–57a	Temporary land for access and working space for widening the M4 and M4 embankment	10b
Section 6. County of	19-58, 19–59, 19–61,	Temporary land	10c

Buckinghamshire, District of South Bucks	19-62, 19-65, 19-73, 19-75, 19-76, 19-77, 19-79	required for access and working space for online reconstruction of Marsh Lane and Marsh Lane overbridge	
Section 6. County of Buckinghamshire, District of South Bucks	19-80	At river level: temporary land required for access for inspection and possible refurbishment work to Jubilee River Bridge	1a, 1b

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***Land Plans - Sheet 20***

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Section 6. County of Buckinghamshire, District of South Bucks	20-02, 20-03, 20- 03a, 20-07, 20-08, 20-09, 20-10, 20-12, 20-17, 20-20	Temporary land required for access and working space to construct realigned Lake End Road and new Lake End Road overbridge	11a, 11b, 11c
Section 7. Borough of Slough	20-27, 20-28	Temporary land required for access and working space to construct realigned Huntercombe Spur and new Huntercombe Spur overbridge	12b, 12e, 12f
Section 6. County of Buckinghamshire, District of South Bucks	20-22,	Temporary land required for access and working space to construct realigned Huntercombe Spur and new Huntercombe Spur overbridge	12b, 12c, 12d, 12e
Section 7. Borough of Slough	20-30, 20-31, 20-32, 20-32a, 20-33, 20- 34, 20-35, 20-36, 20- 37, 20-37a, 20-37b, 20-37c, 20-38, 20- 41b, 20-41c	Temporary land required for access and working space for online reconstruction of Oldway Lane and Oldway Lane overbridge	13, 13b, 13c
Section 7. Borough of Slough	20-41, 20-41a	Temporary land required to enable temporary diversion of Rights of Way between Oldway Lane and Wood Lane	13c, 14c

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***Land Plans - Sheet 21***

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Section 7. Borough of Slough	21-01, 21-02, 21-02a	Temporary land required to enable temporary diversion of Rights of Way between Oldway Lane and Wood Lane	13c, 14c
Section 7. Borough of Slough	21-02b, 21-02c	Temporary land required to enable temporary diversion of Rights of Way between Oldway Lane and Wood Lane and for access and working space to construct and realign Wood Lane and new Wood Lane overbridge	13a, 13c, 14a, 14c
Section 7. Borough of Slough	21-02d, 21-04, 21-05, 21-06, 21-07, 21-12a, 21-13, 21-14, 21-15, 21-16, 21-17, 21-18	Temporary land required for access and working space to construct realigned Wood Lane and new Wood Lane overbridge	14a, 14b, 14c
Section 7. Borough of Slough	21-20, 21-21	Temporary land required for access and working space for the extension of Chalvey Culvert	15

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***Land Plans - Sheet 22***

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Section 7. Borough of Slough	22-22, 22-23, 22-24, 22-25	At railway level: temporary land required for access and working space for widening Windsor Branch railway underbridge to the South, including realignment of M4 and Junction 6 Westbound off-slip and embankment strengthening and widening	1a, 1b, 16b, 16c, 17
Section 7. Borough of Slough	22-01	Temporary access for inspection and possible refurbishment of culvert	1a, 1b
Section 4. Royal	22-10	Temporary use for	All works within

Borough of Windsor and Maidenhead		access to construction compound	Schedule 1
Section 7. Borough of Slough	22-09	Temporary use for access to construction compound and to Scheme construction site	All works within Schedule 1
Section 4. Royal Borough of Windsor and Maidenhead	22-11	Temporary use as construction compound	All works within Schedule 1
Section 7. Borough of Slough	22-12, 22-26	Temporary land required for access and working space for widening Windsor Branch Railway underbridge to the South, including realignment of M4 and Junction 6 Westbound off-slip and embankment strengthening and widening	1b, 16c, 17
Section 7. Borough of Slough	22-18, 22-21	Temporary land required for access and working space for widening Windsor Branch Railway underbridge to the South, including realignment of M4 and Junction 6 Eastbound on-slip	1a, 16b, 17

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***Land Plans - Sheet 23***

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Section 7. Borough of Slough	23-02, 23-03, 23-04	Temporary land for access and working space to extend Water Main and Gas Main subway	18
Section 4. Royal Borough of Windsor and Maidenhead	23-12	Temporary land required for access and working space to construct realigned Datchet Road and new Datchet Road overbridge	19a, 19c
Section 7. Borough of Slough	23-11	Temporary land required for access and working space to	19a, 19c

		construct realigned Datchet Road and new Datchet Road overbridge	
Section 7. Borough of Slough	23-07, 23-08	Temporary land for possible realignment of private means of access to Datchet Road	19c
Section 4. Royal Borough of Windsor and Maidenhead	23-32	Temporary land required for access and working space for online reconstruction of Recreation Ground overbridge	20a, 20c
Section 7. Borough of Slough	23-33	Temporary land required for access to finishing works on Recreation Ground road and Recreation Ground overbridge	20c
Section 4. Royal Borough of Windsor and Maidenhead	23-34, 23-35	Temporary land required for access and working space to extend Water Main subway	21
Section 4. Royal Borough of Windsor and Maidenhead	23-29	Temporary use as construction compound and temporary land required for access and working space to construct realigned Datchet Road and new Datchet Road overbridge, and temporary land required for access and working space for online reconstruction of Recreation Ground overbridge	19c, 20c, All works within Schedule 1
Section 7. Borough of Slough	23-19	Temporary use as construction compound and temporary land required for access and working space to construct realigned Datchet Road and new Datchet Road	19c, All works within Schedule 1

overbridge

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***Land Plans - Sheet 24***

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Section 4. Royal Borough of Windsor and Maidenhead	24-02, 24-03, 24-04, 24-05, 24-06, 24-07, 24-08, 24-09, 24-10, 24-11, 24-12, 24-13, 24-14, 24-15, 24-16, 24-17, 24-18, 24-20, 24-21, 24-22, 24-23, 24-24, 24-25, 24-29, 24-30, 24-32, 24-33, 24-34a	Temporary land required for access and working space to construct realigned Riding Court Road and new Riding Court Road overbridge	22a, 22b, 22c
Section 4. Royal Borough of Windsor and Maidenhead	24-34, 24-36, 24-40	Temporary traffic management, including lane restrictions on Riding Court Road, to create working space for construction of the Scheme	1a, 23a, 23b
Section 4. Royal Borough of Windsor and Maidenhead	24-37, 24-38	Temporary traffic management, including lane restrictions on Majors Farm Road, to create working space for construction of the Scheme	1b

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Section 4. Royal Borough of Windsor and Maidenhead	25-01, 25-02	Temporary traffic management, including lane restrictions on Riding Court Road, to create working space for construction of the Scheme	1a, 24a
Section 7. Borough of Slough	25-03, 25-06, 25-09	Temporary traffic management, including lane restrictions on Riding Court Road, to create working space for construction of the Scheme	1a, 24a
Section 4. Royal Borough of Windsor and Maidenhead	25-11	Temporary traffic management, including lane restrictions on Majors Farm Road, to create working space for	1b, 24d



		construction of the Scheme	
Section 7. Borough of Slough	25-15, 25-19	Temporary traffic management, including lane restrictions on Majors Farm Road, to create working space for construction of the Scheme	1b, 24d
Section 7. Borough of Slough	25-20, 25-22	Temporary traffic management and access to Scheme construction site	All works within Schedule 1
Section 7. Borough of Slough	25-30, 25-31, 25-32, 25-33, 25-34	Temporary use as construction compound	All works within Schedule 1

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Section 7. Borough of Slough	26-03, 26-06, 26-09, 26-10, 26-19	Temporary land required for access and working space for online reconstruction of Old Slade Lane and Old Slade Lane overbridge	25, 26a, 26b
Section 6. County of Buckinghamshire, District of South Bucks	26-02, 26-18	Temporary land required for access and working space for online reconstruction of Old Slade Lane and Old Slade Lane overbridge	25, 26a
Section 7. Borough of Slough	26-09a, 26-10a, 26-11, 26-12, 26-13	Possible temporary access or diversion route for Old Slade Lane	25

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Section 6. County of Buckinghamshire, District of South Buckinghamshire	27-12a, 27-12b, 27-12c, 27-12d, 27-12e, 27-12f	At motorway level; land within existing motorway boundaries retained for construction and operation of the Scheme. At railway level: temporary access for inspection and possible	1a, 1b, 27a, 27b
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Section 7, Borough of Slough	27-13a, 27-13b, 27-13c, 27-13d	refurbishment of the bridge.  At motorway level; land within existing motorway boundaries retained for construction and operation of the Scheme. At railway level: temporary access for inspection and possible refurbishment of the bridge.	1a, 1b, 26a, 26b
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***Land Plans - Sheet 28***

Section 8. London Borough of Hillingdon	28-04, 28-05, 28-06, 28-07, 28-09, 28-10, 28-11, 28-12	Temporary access and working space for extension of Sipson Road subway	28, 29a, 29d
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Section 8. London Borough of Hillingdon	29-01, 29-02, 29-03	Temporary use as construction compound	All works within Schedule 1
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***Land Plans - Sheet 30***

Section 8. London Borough of Hillingdon	30-03	For inspection and possible refurbishment to St Dunstons Subway	1a,1b
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**SCHEDULE 8**

Article 39

**TREES SUBJECT TO TREE PRESERVATION ORDERS**

<i>(1)</i> <i>Type of tree</i>	<i>(2)</i> <i>Work to be carried out</i>	<i>(3)</i> <i>Relevant part of the authorised development</i>
Area Order TPO 239/1983 (Wokingham District Council), contains a mixture of Oak ( <i>Quercus robur</i> ), Ash ( <i>Fraxinus excelsior</i> ) and other indigenous tree species together with a secondary storey of Hawthorn ( <i>Crataegus monogyna</i> )	Possibility of localised disturbance to tree roots where they extend into the adjacent Scheme order limits, leading to possible need for lopping or felling. However, damage / loss to these trees will be avoided through detailed design where possible.	Work No. 1a
Area Order TPO 576/1993 (Wokingham District Council), mixed woodland containing Oak ( <i>Quercus</i>	Possibility of localised disturbance to tree roots where they extend into the adjacent Scheme order limits, leading	Work No. 5c

robur), Birch ( <i>Betula pendula</i> ), Beech ( <i>Fagus sylvatica</i> )	to possible need for lopping or felling. However, damage / loss to these trees will be avoided through detailed design where possible.	
Area Order TPO 432 (Bracknell Forest Council), consists of mixed sapling and mature tree species including: Alder, Birch, Oak, Fir, Sweet Chestnut, Larch, Holly, Pine, Willow, Hemlock, Cypress, Hazel, Poplar, Aspen, Hawthorn, Sallow and Spruce	Possibility of localised disturbance to tree roots where they extend into the adjacent Scheme order limits, leading to possible need for lopping or felling. However, damage / loss to these trees will be avoided through detailed design where possible.	Work No. 1a
Individual Trees TPO 13/1979 (Royal Borough of Windsor and Maidenhead). Species data not available	Possible felling or lopping of individual trees along Ascot Road due to construction work in close proximity. However, subject to detail design it may be possible to retain and protect these trees during construction.	Work No. 7a
Area Order TPO 1962 (South Bucks District Council). Species data not available	Felling small part in the southern part of the TPO area where it overlaps with the Order limits.	Work No. 9a; Work No. 9b
Individual tree (Lime) TPO 14/2000 (South Bucks District Council)	Possible felling or lopping of this tree due to construction work in close proximity. However, subject to detail design it may be possible to retain and protect this tree during construction.	Work No. 1a
Area Order TPO 12 of 2006, Datchet Meadows (Slough Borough Council). Species data not available	Possibility of localised disturbance to tree roots where they extend into the adjacent Scheme order limits, leading to possible need for lopping or felling. However, damage / loss to these trees will be avoided through detailed design where possible.	Work No. 19c
Area Order TPO 7 of 1952 Old Wood (Slough Borough Council). Species data not available	Possibility of localised disturbance to tree roots where they extend into the adjacent Scheme order limits, leading to possible need for lopping or felling. However, damage / loss to these trees will be avoided through detailed	Work No. 1b

design where possible.

Individual Trees TPO 3 of  
1982 Old Slade Road  
(Slough Borough Council).  
Species data not available

Possible felling or lopping of  
three individual trees along  
Old Slade Lane due to  
construction work in close  
proximity. However, subject to  
detail design it may be  
possible to retain and protect  
these trees during construction.

Work No. 25

Area Order TPO 549  
(London Borough of  
Hillingdon), consists mainly  
of London Plane, Wild  
Cherry and Sycamore

Possibility of localised  
disturbance to tree roots where  
they extend into the adjacent  
Scheme order limits, leading  
to possible need for lopping or  
felling. However, damage /  
loss to these trees will be  
avoided through detailed  
design where possible.

Work No. 29b

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## SCHEDULE 9

Article 42

### PROTECTION OF INTERESTS

#### PART 1

#### FOR THE PROTECTION OF ELECTRICITY, GAS, OIL, WATER AND SEWERAGE UNDERTAKERS

1. For the protection of the protected persons referred to in this Part of this Schedule the following provisions have effect, unless otherwise agreed in writing between the undertaker and the protected person concerned.

2. In this Part of this Schedule—

“alternative apparatus” means alternative apparatus adequate to enable the protected person in question to fulfil its statutory functions in a manner no less efficient than previously;

“apparatus” means—

- (a) in the case of an electricity undertaker, electric lines or electrical plant (as defined in the Electricity Act 1989(a), belonging to or maintained by that undertaker;
- (b) in the case of a gas undertaker, any mains, pipes or other apparatus belonging to or maintained by a gas transporter within the meaning of Part 1 (gas supply) of the Gas Act 1986(b) for the purposes of gas supply;
- (c) in the case of a water undertaker, mains, pipes or other apparatus belonging to or maintained by that undertaker for the purposes of water supply; and
- (d) in the case of a sewerage undertaker—

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(a) 1989 c. 29. The definition of “electrical plant” (in section 64) was amended by paragraphs 24 and 38(1) and (3) of Schedule 6 to the Utilities Act 2000 (c. 27).

(b) 1986 c. 44. A new section 7 was substituted by section 5 of the Gas Act 1995 (c. 45), and was further amended by sections 3(2) and 76 of, and paragraphs 1 and 4 of Schedule 6, and Schedule 8, to, the Utilities Act 2000 (c. 27), sections 149(1) and (5) and 197(9) of, and part 1 of Schedule 23 to, the Energy Act 2004 (c. 20) and S.I. 2011/2704.

- (i) any drain or works vested in the undertaker under the Water Industry Act 1991(a); and
- (ii) any sewer which is so vested or is the subject of a notice of intention to adopt given under section 102(4) (adoption of sewers and disposal works) of that Act or an agreement to adopt made under section 104 (agreement to adopt sewers, drains or sewage disposal works at future date) of that Act(b),

and includes a sludge main, disposal main (within the meaning of section 219 (general interpretation) of that Act) or sewer outfall and any manholes, ventilating shafts, pumps or other accessories forming part of any such sewer, drain or works; and

- (e) in the case of the Oil and Pipelines Agency, any oil apparatus, and includes any structure in which apparatus is or is to be lodged or which gives or will give access to apparatus;

“functions” includes powers and duties;

“in”, in a context referring to apparatus or alternative apparatus in land, includes a reference to apparatus or alternative apparatus under, over or upon land;

“oil apparatus” means any pipe-line, apparatus and works as described in section 65(2) (meaning of “pipe-line”) of the Pipe-lines Act 1962(c) and all protective wrappings, sleeves and slabs, together with ancillary cables and markers; and such legal interest, and benefit of property rights and covenants as are vested in the Oil and Pipeline Agency in respect of such items;

“plan” includes all designs, drawings, specifications, method statements, soil reports, programmes, calculations, risk assessments and other documents that are reasonably necessary properly and sufficiently to describe the works to be executed;

“protected person” means—

- (a) any licence holder within the meaning of Part 1 (electricity supply) of the Electricity Act 1989;
- (b) a gas transporter within the meaning of Part 1 of the Gas Act 1986;
- (c) a water undertaker within the meaning of the Water Industry Act 1991;
- (d) a sewerage undertaker within the meaning of Part 1 (preliminary) of the Water Industry Act 1991; and
- (e) the Oil and Pipelines Agency and its successors in title and function

for the area of the authorised development, and in relation to any apparatus, means the undertaker to whom it belongs or by whom it is maintained.

#### On street apparatus

3. This Part of this Schedule does not apply to apparatus in respect of which the relations between the undertaker and the protected person are regulated by the provisions of Part 3 (street works in England and Wales) of the 1991 Act.

#### Apparatus in stopped up streets

4.—(1) Where any street is stopped up under article 13 (permanent stopping up of streets), any protected person whose apparatus is in the street has the same powers and rights in respect of that apparatus as it enjoyed immediately before the stopping up and the undertaker must grant to the protected person legal easements reasonably satisfactory to the protected person in respect of such apparatus and access to it, but nothing in this paragraph affects any right of the undertaker or of

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(a) 1991 c. 56.

(b) Section 102(4) was amended by section 96(1)(c) of the Water Act 2003. Section 104 was amended by sections 96(4) and 101(2) of, and part 3 of Schedule 9 to, the Water Act 2003 and section 42(3) of the Flood and Water Management Act 2010 (c. 29).

(c) 1962 c. 58. Section 65(2) was amended by paragraphs 1 and 6 of Schedule 2 to the Energy Act 2011 (c. 16), S.I. 2000/1937 and S.I. 2011/2305.

the protected person to require the removal of that apparatus under paragraph 7 or the power of the undertaker to carry out works under paragraph 9.

(2) Regardless of the temporary stopping up or diversion of any highway under the powers conferred by article 14 (temporary stopping up of streets), a protected person is at liberty at all times to take all necessary access across any such stopped up highway and to execute and do all such works and things in, upon or under any such highway as may be reasonably necessary or desirable to enable it to maintain any apparatus which at the time of the stopping up or diversion was in that highway.

#### Protective works to buildings

5. The undertaker, in the case of the powers conferred by article 18 (protective work to buildings), must exercise those powers so as not to obstruct or render less convenient the access to any apparatus.

#### Acquisition of land

6. Regardless of any provision in this Order or anything shown on the land plans, the undertaker must not acquire any apparatus otherwise than by agreement.

#### Removal of apparatus

7.—(1) If, in the exercise of the powers conferred by this Order, the undertaker acquires any interest in any land in which any apparatus is placed or over which access to any apparatus is enjoyed or requires that the protected person's apparatus is relocated or diverted, that apparatus must not be removed under this Part of this Schedule, and any right of a protected person to maintain that apparatus in that land and to gain access to it must not be extinguished, until alternative apparatus has been constructed and is in operation, and access to it has been provided, to the reasonable satisfaction of the protected person in question in accordance with sub-paragraphs (2) to (7).

(2) If, for the purpose of executing any works in, on or under any land purchased, held, appropriated or used under this Order, the undertaker requires the removal of any apparatus placed in that land, the undertaker must give to the protected person in question 56 days' written notice of that requirement, together with a plan of the work proposed, and of the proposed position of the alternative apparatus to be provided or constructed and in that case (or if in consequence of the exercise of any of the powers conferred by this Order an undertaker reasonably needs to remove any of its apparatus) the undertaker must, subject to sub-paragraph (3), afford to the protected person the necessary facilities and rights for the construction of alternative apparatus in other land of the undertaker and subsequently for the maintenance of that apparatus.

(3) If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of the undertaker, or the undertaker is unable to afford such facilities and rights as are mentioned in sub-paragraph (2) in the land in which the alternative apparatus or part of such apparatus is to be constructed the protected person must, on receipt of a written notice to that effect from the undertaker, as soon as reasonably possible use its best endeavours to obtain the necessary facilities and rights in the land in which the alternative apparatus is to be constructed.

(4) Any alternative apparatus to be constructed in land of the undertaker under this Part of this Schedule must be constructed in such manner and in such line or situation as may be agreed between the protected person in question and the undertaker or in default of agreement settled by arbitration in accordance with article 45 (arbitration).

(5) The protected person in question must, after the alternative apparatus to be provided or constructed has been agreed or settled by arbitration in accordance with article 45 (arbitration), and after the grant to the protected person of any such facilities and rights as are referred to in sub-paragraphs (2) or (3), proceed without unnecessary delay to construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by the undertaker to be removed under the provisions of this Part of this Schedule.

(6) Regardless of anything in sub-paragraph (5), if the undertaker gives notice in writing to the protected person in question that the undertaker intends to execute any work, or part of any work in connection with the construction or removal of apparatus in any land of the undertaker, that

work, instead of being executed by the protected person, must be executed by the undertaker without unnecessary delay under the superintendence, if given, and to the reasonable satisfaction of the protected person.

(7) Nothing in sub-paragraph (6) authorises the undertaker to execute the placing, installation, bedding, packing, removal, connection or disconnection of any apparatus, or execute any filling around the apparatus (where the apparatus is laid in a trench) within—

- (a) 300 millimetres of apparatus other than oil apparatus; and
- (b) 3000 millimetres of oil apparatus.

#### Facilities and rights for alternative apparatus

8.—(1) Where, in accordance with the provisions of this Part of this Schedule, the undertaker affords to a protected person facilities and rights for the construction and maintenance in land of the undertaker of alternative apparatus in substitution for apparatus to be removed, those facilities and rights are to be granted upon such terms and conditions as may be agreed between the undertaker and the protected person in question or in default of agreement settled by arbitration in accordance with article 45 (arbitration).

(2) In settling those terms and conditions in respect of alternative apparatus the arbitrator must—

- (a) give effect to all reasonable requirements of the undertaker for ensuring the safety and efficient operation of the authorised development and for securing any subsequent alterations or adaptations of the alternative apparatus which may be required to prevent interference with any proposed works of the undertaker or the traffic on the highway; and
- (b) so far as it may be reasonable and practicable to do so in the circumstances of the particular case, give effect to the terms and conditions, if any, applicable to the apparatus for which the alternative apparatus is to be substituted.

(3) If the facilities and rights to be afforded by the undertaker in respect of any alternative apparatus, and the terms and conditions subject to which those facilities and rights are to be granted, are in the opinion of the arbitrator less favourable on the whole to the protected person in question than the facilities and rights enjoyed by it in respect of the apparatus to be removed and the terms and conditions to which those facilities and rights are subject, the arbitrator must make such provision for the payment of compensation by the undertaker to that protected person as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case.

#### Retained apparatus

9.—(1) Not less than 28 days before starting the execution of any works in, on or under any land purchased, held, appropriated or used under this Order that are near to, or will or may affect, any apparatus the removal of which has not been required by the undertaker under paragraph 7(2), the undertaker must submit to the protected person in question a plan of the works to be executed.

(2) Those works must be executed only in accordance with the plan submitted under sub-paragraph (1) and in accordance with such reasonable requirements as may be made in accordance with sub-paragraph (3) by the protected person for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and the protected person is entitled to watch and inspect the execution of those works.

(3) Any requirements made by a protected person under sub-paragraph (2) must be made within a period of 21 days beginning with the date on which a plan under sub-paragraph (1) is submitted to it.

(4) If a protected person in accordance with sub-paragraph (3) and in consequence of the works proposed by the undertaker, reasonably requires the removal of any apparatus and gives written notice to the undertaker of that requirement, paragraphs 1 to 3 and 6 to 8 apply as if the removal of the apparatus had been required by the undertaker under paragraph 7(2).

(5) Nothing in this paragraph precludes the undertaker from submitting at any time or from time to time, but in no case less than 28 days before commencing the execution of any works, a new

plan instead of the plan previously submitted, and having done so the provisions of this paragraph apply to and in respect of the new plan.

(6) The undertaker is not required to comply with sub-paragraph (1) in a case of emergency but in that case must give, to the protected person in question, notice as soon as is reasonably practicable and a plan of those works as soon as reasonably practicable subsequently and must comply with sub-paragraph (3) in so far as is reasonably practicable in the circumstances.

#### Expenses and costs

**10.—**(1) Subject to the following provisions of this paragraph, the undertaker must repay to a protected person all expenses reasonably incurred by that protected person in, or in connection with, the inspection, removal, alteration or protection of any apparatus or the construction of any new apparatus which may be required in consequence of the execution of any such works as are referred to in paragraph 7(2), including any costs reasonably incurred in connection with the acquisition of rights under paragraph 7(3), and in watching and inspecting the execution of works under paragraph 9(2) and in making reasonable requirements under paragraph 9(3).

(2) There is to be deducted from any sum payable under sub-paragraph (1) the value of any apparatus removed under the provisions of this Part of this Schedule, that value being calculated after removal.

(3) If in accordance with the provisions of this Part of this Schedule—

- (a) apparatus of better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus of worse type, of smaller capacity or of smaller dimensions; or
- (b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which the existing apparatus was situated, and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by the undertaker or, in default of agreement, is not determined by arbitration in accordance with article 45 (arbitration) to be necessary, then, if such placing involves cost in the construction of works under this Part of this Schedule exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which apart from this sub-paragraph would be payable to the protected person in question by virtue of sub-paragraph (1) is to be reduced by the amount of that excess.

(4) For the purposes of sub-paragraph (3)—

- (a) an extension of apparatus to a length greater than the length of existing apparatus is not to be treated as a placing of apparatus of greater dimensions than those of the existing apparatus; and
- (b) where the provision of a joint in a pipe or cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole is to be treated as if it also had been agreed or had been so determined.

(5) An amount which apart from this sub-paragraph would be payable to a protected person in respect of works by virtue of sub-paragraph (1), if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on the protected person any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, is to be reduced by the amount which represents that benefit.

**11.—**(1) Subject to sub-paragraphs (2) and (3), if by reason or in consequence of the construction of the authorised development or any such works referred to in paragraphs 5, 7(2), or 9(1), or by reason of any subsidence resulting from such development or works, any damage is caused to any apparatus or alternative apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of those works) or property of a protected person, or there is any interruption in any service provided or of any access to any apparatus, or in the supply of any goods, by any protected person, the undertaker must—



- (a) bear and pay the cost reasonably incurred by that protected person in making good such damage or restoring the supply; and
- (b) make reasonable compensation to that protected person for any other expenses, loss, damages, penalty or costs incurred by the undertaker, by reason or in consequence of any such damage or interruption.

(2) The fact that any act or thing may have been done by a protected person on behalf of the undertaker or in accordance with a plan approved by a protected person or in accordance with any requirement of a protected person or under its supervision does not, subject to sub-paragraph (3), excuse the undertaker from liability under the provisions of sub-paragraph (1).

(3) Nothing in sub-paragraph (1) imposes any liability on the undertaker with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of a protected person, its officers, servants, contractors or agents.

(4) A protected person must give the undertaker reasonable notice of any such claim or demand and no settlement or compromise is to be made without the consent of the undertaker who, if withholding such consent, has the sole conduct of any settlement or compromise or of any proceedings necessary to resist the claim or demand.

(5) Any difference arising between the undertaker and the protected person under this Part of this Schedule must be referred to and settled by arbitration under article 45 (arbitration).

#### Co-operation

**12.** Where in consequence of the proposed construction of any of the authorised development, the undertaker or a protected person requires the removal of apparatus under paragraph 7(2) or a protected person makes requirements for the protection or alteration of apparatus under paragraph 9, the undertaker must use best endeavours to co-ordinate the execution of the works in the interests of safety and the efficient and economic execution of the authorised development and taking into account the need to ensure the safe and efficient operation of the protected person's undertaking and each protected person must use its best endeavours to co-operate with the undertaker for that purpose.

**13.** Nothing in this Part of this Schedule affects the provisions of any enactment or agreement regulating the relations between the undertaker and a protected person in respect of any apparatus laid or erected in land belonging to the undertaker on the date on which this Order is made.

## PART 2

### FOR THE PROTECTION OF OPERATORS OF ELECTRONIC COMMUNICATIONS CODE NETWORKS

**14.** For the protection of any operator, the following provisions have effect, unless otherwise agreed in writing between the undertaker and the operator.

**15.** In this Part of this Schedule—

“the 2003 Act” means the Communications Act 2003(a);

“conduit system” has the same meaning as in the electronic communications code and references to providing a conduit system are to be construed in accordance with paragraph 1(3A)(b) (interpretation of code) of that code;

“electronic communications apparatus” has the same meaning as in the electronic communications code;

“the electronic communications code” has the same meaning as in Chapter 1 (electronic communications, networks and services) of Part 2 of the 2003 Act(c);

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(a) 2003 c. 21.

(b) Paragraph 1(3A) was inserted by section 106(2) of, and paragraphs 1 and 4 of Schedule 3 to, the Communications Act 2003.

(c) See section 106 of the 2003 Act.

“electronic communications code network” means—

- (a) so much of an electronic communications network or conduit system provided by an electronic communications code operator as is not excluded from the application of the electronic communications code by a direction under section 106 (application of the electronic communications code) of the 2003 Act; and
- (b) an electronic communications network which the undertaker is providing or proposing to provide;

“electronic communications code operator” means a person in whose case the electronic communications code is applied by a direction under section 106 of the 2003 Act; and

“operator” means the operator of an electronic communications code network.

**16.** The exercise of the powers conferred by article 31 (statutory undertakers) is subject to paragraph 23 of Schedule 2 (undertaker’s works) to the Telecommunication Act 1984(a).

**17.—(1)** Subject to sub-paragraphs (2) to (4), if as the result of the authorised development or its construction, or of any subsidence resulting from any of those works—

- (a) any damage is caused to any electronic communications apparatus belonging to an operator (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of those works, or other property of an operator); or
- (b) there is any interruption in the supply of the service provided by an operator,

the undertaker must bear and pay the cost reasonably incurred by the operator in making good such damage or restoring the supply and make reasonable compensation to that operator for any other expenses, loss, damages, penalty or costs incurred by it, by reason, or in consequence of, any such damage or interruption.

(2) Nothing in sub-paragraph (1) imposes any liability on the undertaker with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of an operator, its officers, servants, contractors or agents.

(3) The operator must give the undertaker reasonable notice of any such claim or demand and no settlement or compromise of the claim or demand is to be made without the consent of the undertaker who, if such consent is withheld, has the sole conduct of any settlement or compromise or of any proceedings necessary to resist the claim or demand.

(4) Any difference arising between the undertaker and the operator under this Part of this Schedule must be referred to and settled by arbitration under article 45 (arbitration).

**18.** This Part of this Schedule does not apply to—

- (a) any apparatus in respect of which the relations between the undertaker and an operator are regulated by the provisions of Part 3 (street works in England and Wales) of the 1991 Act; or
- (b) any damages, or any interruptions, caused by electro-magnetic interference arising from the construction or use of the authorised development.

**19.** Nothing in this Part of this Schedule affects the provisions of any enactment or agreement regulating the relations between the undertaker and an operator in respect of any apparatus already laid or erected in land belonging to the undertaker on the date on which this Order is made.

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(a) 1984 c. 12. Paragraph 23 was amended by section 190 of, and paragraph 68 of Schedule 25 and Part 1 of Schedule 27 to, the Water Act 1989 (c. 15), section 112(4) of, and Schedule 18 to, the Electricity Act 1989 (c. 29) and section 106(2) of, and paragraphs 1, 5(d) and 8 of Schedule 3 to, the Communications Act 2003.

## PART 3

### FOR THE PROTECTION OF RAILWAY INTERESTS

**20.** The following provisions of this Part of this Schedule have effect, unless otherwise agreed in writing between the undertaker and Network Rail and, in the case of paragraph 34, any other person on whom rights or obligations are conferred by that paragraph.

**21.** In this Part of this Schedule—

“construction” includes execution, placing, alteration and reconstruction and “construct” and “constructed” have corresponding meanings;

“the engineer” means an engineer appointed by Network Rail for the purposes of this Order;

“network licence” means the network licence, as the same is amended from time to time, granted to Network Rail Infrastructure Limited by the undertaker in exercise of powers under section 8 (licences) of the Railways Act 1993(a);

“Network Rail” means Network Rail Infrastructure Limited (company number 02904587, whose registered office is at 1 Eversholt Street, London NW1 2DN) and any associated company of Network Rail Infrastructure Limited which holds property for railway purposes and for the purpose of this definition “associated company” means any company which is (within the meaning of section 1159 (meaning of “subsidiary” etc.) of the Companies Act 2006(b)) the holding company of Network Rail Infrastructure Limited, a subsidiary of Network Rail Infrastructure Limited or another subsidiary of the holding company of Network Rail Infrastructure Limited;

“plans” includes sections, designs, design data, software, drawings, specifications, soil reports, calculations, descriptions (including descriptions of methods of construction), staging proposals, programmes and details of the extent, timing and duration of any proposed occupation of railway property;

“protective works” means any works specified by the engineer under paragraph 24;

“railway operational procedures” means procedures specified under any access agreement (as defined in the Railways Act 1993(c)) or station lease;

“railway property” means any railway belonging to Network Rail and—

- (a) any station, land, works, apparatus and equipment belonging to Network Rail or connected with any such railway; and
- (b) any easement or other property interest held or used by Network Rail for or connected with the purposes of such railway or works, apparatus or equipment; and

“specified work” means so much of any of the authorised development as is, or is to be, situated upon, across, under, over or within 15 metres of, or may in any way adversely affect, railway property.

**22.—**(1) Where under this Part of this Schedule Network Rail is required to give its consent, agreement or approval in respect of any matter, that consent, agreement or approval is subject to the condition that Network Rail complies with any relevant railway operational procedures and any obligations under its network licence or under statute.

(2) In so far as any specified work or the acquisition or use of railway property or rights over railway property is or may be subject to railway operational procedures, Network Rail must—

- (a) co-operate with the undertaker with a view to avoiding undue delay and securing conformity as between any plans approved by the engineer and requirements emanating from those procedures; and

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(a) 1993 c. 43.  
(b) 2006 c. 46.  
(c) 1993 c. 43.

- (b) use its reasonable endeavours to avoid any conflict arising between the application of those procedures and the proper implementation of the authorised development under this Order.

**23.—**(1) The undertaker must not exercise the powers conferred by articles 19 (authority to survey and investigate land), 20 (compulsory acquisition of land), 22 (compulsory acquisition of rights), 23 (power to override easements and other rights), 24 (private rights over land), 26 (acquisition of subsoil or air-space only), 28 (rights under or over streets), 29 (temporary use of land for carrying out the authorised development), 30 (temporary use of land for maintaining the authorised development), 31 (statutory undertakers), 38 (felling or lopping of trees) or the powers conferred by section 11(3) (powers of entry) of the 1965 Act in respect of any railway property unless the exercise of such powers is with the consent of Network Rail.

(2) The undertaker must not in the exercise of the powers conferred by this Order prevent pedestrian or vehicular access to any railway property, unless preventing such access is with the consent of Network Rail.

(3) The undertaker must not exercise the powers conferred by sections 271 (extinguishment of rights of statutory undertakers: preliminary notices) or 272 (extinguishment of rights of telecommunications code system operators: preliminary notices) of the 1990 Act, or article 31 (statutory undertakers), in relation to any right of access of Network Rail to railway property, but such right of access may be diverted with the consent of Network Rail.

(4) The undertaker must not under the powers of this Order acquire or use, or acquire new rights over, any railway property except with the consent of Network Rail.

(5) Where Network Rail is asked to give its consent or agreement under this paragraph, such consent or agreement must not be unreasonably withheld but may be given subject to reasonable conditions.

**24.—**(1) The undertaker must, before commencing construction of any specified work, supply to Network Rail proper and sufficient plans of that work for the reasonable approval of the engineer and the specified work must not be commenced except in accordance with such plans as have been approved in writing by the engineer or settled by arbitration under article 45 (arbitration).

(2) The approval of the engineer under sub-paragraph (1) must not be unreasonably withheld, and if by the end of the period of 28 days beginning with the date on which such plans have been supplied to Network Rail the engineer has not intimated disapproval of those plans and the grounds of disapproval the undertaker may serve upon the engineer written notice requiring the engineer to intimate approval or disapproval within a further period of 28 days beginning with the date upon which the engineer receives written notice from the undertaker. If by the expiry of the further 28 days the engineer has not intimated approval or disapproval, the engineer is deemed to have approved the plans as submitted.

(3) If by the end of the period of 28 days beginning with the date on which written notice was served upon the engineer under sub-paragraph (2), Network Rail gives notice to the undertaker that Network Rail desires itself to construct any part of a specified work which in the opinion of the engineer will or may affect the stability of railway property or the safe operation of traffic on the railways of Network Rail then, if the undertaker desires such part of the specified work to be constructed, Network Rail must construct it with all reasonable dispatch on behalf of and to the reasonable satisfaction of the undertaker in accordance with the plans approved or deemed to be approved or settled under this paragraph, and under the supervision (where appropriate and if given) of the undertaker.

(4) When signifying approval of the plans the engineer may specify any protective works (whether temporary or permanent) which in the engineer's opinion should be carried out before the commencement of the construction of a specified work to ensure the safety or stability of railway property or the continuation of safe and efficient operation of the railways of Network Rail or the services of operators using the same (including any relocation de-commissioning and removal of works, apparatus and equipment necessitated by a specified work and the comfort and safety of passengers who may be affected by the specified works), and such protective works as may be reasonably necessary for those purposes must be constructed by Network Rail or by the undertaker, if Network Rail so desires, and such protective works must be carried out at the

expense of the undertaker in either case with all reasonable dispatch and the undertaker must not commence the construction of the specified works until the engineer has notified the undertaker that the protective works have been completed to the engineer's reasonable satisfaction.

**25.—**(1) Any specified work and any protective works to be constructed by virtue of paragraph 24(4) must, when commenced, be constructed—

- (a) with all reasonable dispatch in accordance with the plans approved or deemed to have been approved or settled under paragraph 24;
- (b) under the supervision (where appropriate and if given) and to the reasonable satisfaction of the engineer;
- (c) in such manner as to cause as little damage as is possible to railway property; and
- (d) so far as is reasonably practicable, so as not to interfere with or obstruct the free, uninterrupted and safe use of any railway of Network Rail or the traffic on it and the use by passengers of railway property.

(2) If any damage to railway property or any such interference or obstruction is caused by the carrying out of, or in consequence of the construction of a specified work or a protective work, the undertaker must, regardless of any such approval, make good such damage and must pay to Network Rail all reasonable expenses to which Network Rail may be put and compensation for any loss which it may sustain by reason of any such damage, interference or obstruction.

(3) Nothing in this Part of this Schedule imposes any liability on the undertaker with respect to any damage, costs, expenses or loss attributable to the negligence of Network Rail or its servants, contractors or agents, or any liability on Network Rail with respect of any damage, costs, expenses or loss attributable to the negligence of the undertaker or the undertaker's employees, contractors or agents.

**26.—**(1) The undertaker must—

- (a) at all times afford reasonable facilities to the engineer for access to a specified work or protective work during its construction; and
- (b) supply the engineer with all such information as the engineer may reasonably require with regard to a specified work or protective work or the method of constructing it.

**27.** Network Rail must at all reasonable times afford reasonable facilities to the undertaker and the undertaker's agents for access to any works carried out by Network Rail under this Part of this Schedule during their construction and must supply the undertaker with such information as the undertaker may reasonably require with regard to such works or the method of constructing them.

**28.—**(1) If any permanent or temporary alterations or additions to railway property, are reasonably necessary in consequence of the construction of a specified work or a protective work, or during a period of 24 months after the completion of that work in order to ensure the safety of railway property or the continued safe operation of the railway of Network Rail, such alterations and additions may be carried out by Network Rail and if Network Rail gives to the undertaker reasonable notice of its intention to carry out such alterations or additions (which must be specified in the notice), the undertaker must pay to Network Rail the reasonable cost of those alterations or additions including, in respect of any such alterations and additions as are to be permanent, a capitalised sum representing the increase of the costs which may be expected to be reasonably incurred by Network Rail in maintaining, working and, when necessary, renewing any such alterations or additions.

(2) If during the construction of a specified work or a protective work by the undertaker, Network Rail gives notice to the undertaker that Network Rail desires itself to construct that part of the specified work or protective work which in the opinion of the engineer is endangering the stability of railway property or the safe operation of traffic on the railways of Network Rail then, if the undertaker decides that part of the specified work or protective work is to be constructed, Network Rail must assume construction of that part of the specified work or protective work and the undertaker must, regardless of any such approval of a specified work or protective work under paragraph 24(3), pay to Network Rail all reasonable expenses to which Network Rail may be put

and compensation for any loss which it may suffer by reason of the execution by Network Rail of that specified work or protective work.

(3) The engineer must, in respect of the capitalised sums referred to in this paragraph and paragraph 29(a) provide such details of the formula by which those sums have been calculated as the undertaker may reasonably require.

(4) If the cost of maintaining, working or renewing railway property is reduced in consequence of any such alterations or additions a capitalised sum representing such saving is to be set off against any sum payable by the undertaker to Network Rail under this paragraph.

**29.** The undertaker must repay to Network Rail all reasonable fees, costs, charges and expenses reasonably incurred by Network Rail—

- (a) in constructing any part of a specified work on behalf of the undertaker as provided by paragraph 24(3) or in constructing any protective works under the provisions of paragraph 24(4) including, in respect of any permanent protective works, a capitalised sum representing the cost of maintaining and renewing those works;
- (b) in respect of the approval by the engineer of plans submitted by the undertaker and the supervision by the engineer of the construction of a specified work or a protective work;
- (c) in respect of the employment or procurement of the services of any inspectors, signallers, watchkeepers and other persons whom it is reasonably necessary to appoint for inspecting, signalling, watching and lighting railway property and for preventing, so far as may be reasonably practicable, interference, obstruction, danger or accident arising from the construction or failure of a specified work or a protective work;
- (d) in respect of any special traffic working resulting from any speed restrictions which may in the opinion of the engineer, require to be imposed by reason or in consequence of the construction or failure of a specified work or a protective work or from the substitution of diversion of services which may be reasonably necessary for the same reason; and
- (e) in respect of any additional temporary lighting of railway property in the vicinity of the specified works, being lighting made reasonably necessary by reason or in consequence of the construction or failure of a specified work or a protective work.

**30.—(1)** In this paragraph—

“EMI” means, subject to sub-paragraph (2), electromagnetic interference with Network Rail apparatus generated by the operation of the authorised development where such interference is of a level which adversely affects the safe operation of Network Rail’s apparatus;

“Network Rail’s apparatus” means any lines, circuits, wires, apparatus or equipment (whether or not modified or installed as part of the authorised development) which are owned or used by Network Rail for the purpose of transmitting or receiving electrical energy or of radio, telegraphic, telephonic, electric, electronic or other like means of signalling or other communications.

(2) This paragraph applies to EMI only to the extent that such EMI is not attributable to any change to Network Rail’s apparatus carried out after approval of plans under paragraph 24(1) for the relevant part of the authorised development giving rise to EMI (unless the undertaker has been given notice in writing before the approval of those plans of the intention to make such change).

(3) Subject to sub-paragraph (5), the undertaker must in the design and construction of the authorised development take all measures necessary to prevent EMI and must establish with Network Rail (both parties acting reasonably) appropriate arrangements to verify their effectiveness.

(4) In order to facilitate the undertaker’s compliance with sub-paragraph (3)—

- (a) the undertaker must consult with Network Rail as early as reasonably practicable to identify all Network Rail’s apparatus which may be at risk of EMI, and must continue to consult with Network Rail (both before and after formal submission of plans under paragraph 24(1)) in order to identify all potential causes of EMI and the measures required to eliminate them;

- (b) Network Rail must make available to the undertaker all information in the possession of Network Rail reasonably requested by the undertaker in respect of Network Rail's apparatus identified under sub-paragraph (a); and
- (c) Network Rail must allow the undertaker reasonable facilities for the inspection of Network Rail's apparatus identified under sub-paragraph (a).

(5) In any case where it is established that EMI can only reasonably be prevented by modifications to Network Rail's apparatus, Network Rail must not withhold its consent unreasonably to modifications of Network Rail's apparatus, but the means of prevention and the method of their execution may be selected at the reasonable discretion of Network Rail, and in relation to such modifications paragraph 24(1) has effect subject to this sub-paragraph.

(6) If at any time prior to the completion of the authorised development and regardless of any measures adopted under sub-paragraph (3), the testing or commissioning of the authorised development causes EMI then the undertaker must immediately upon receipt of notification by Network Rail of such EMI either in writing or communicated orally (such oral communication to be confirmed in writing as soon as reasonably practicable after it has been issued) cease to use (or procure the cessation of use of) the undertaker's apparatus causing such EMI until all measures necessary have been taken to remedy such EMI by way of modification to the source of such EMI or (in the circumstances, and subject to the consent, specified in sub-paragraph (5)) to Network Rail's apparatus.

(7) In the event of EMI having occurred—

- (a) the undertaker must afford reasonable facilities to Network Rail for access to the undertaker's apparatus in the investigation of such EMI;
- (b) Network Rail must afford reasonable facilities to the undertaker for access to Network Rail's apparatus in the investigation of such EMI; and
- (c) Network Rail must make available to the undertaker any additional material information in its possession reasonably requested by the undertaker in respect of Network Rail's apparatus or such EMI.

(8) Where Network Rail approves modifications to Network Rail's apparatus under sub-paragraphs (5) or (6)—

- (a) Network Rail must allow the undertaker reasonable facilities for the inspection of the relevant part of Network Rail's apparatus; and
- (b) any modifications to Network Rail's apparatus approved under those sub-paragraphs must be carried out and completed by the undertaker in accordance with paragraph 25.

(9) To the extent that it would not otherwise do so, paragraph 34(1) applies to the costs and expenses reasonably incurred or losses suffered by Network Rail through the implementation of the provisions of this paragraph (including costs incurred in connection with the consideration of proposals, approval of plans, supervision and inspection of works and facilitating access to Network Rail's apparatus) or in consequence of any EMI to which sub-paragraph (6) applies.

(10) For the purpose of paragraph 29(a) any modifications to Network Rail's apparatus under this paragraph are deemed to be protective works referred to in that paragraph.

(11) In relation to any dispute arising under this paragraph the reference in article 45 (arbitration) to a single arbitrator to be agreed between the parties is to be read as a reference to an arbitrator being a member of the Institution of Engineering and Technology to be agreed.

**31.** If at any time after the completion of a specified work or a protective work, not being a work vested in Network Rail, Network Rail gives notice to the undertaker informing it that the state of maintenance of any part of the specified work or protective work appears to be such as adversely affects the operation of railway property, the undertaker must, on receipt of such notice, take such steps as may be reasonably necessary to put that specified work or protective work in such state of maintenance as to not adversely affect railway property.

**32.** The undertaker must not provide any illumination or illuminated sign or signal on or in connection with a specified work or a protective work in the vicinity of any railway belonging to Network Rail unless the undertaker has first consulted Network Rail and the undertaker must

comply with Network Rail's reasonable requirements for preventing confusion between such illumination or illuminated sign or signal and any railway signal or other light used for controlling, directing or securing the safety of traffic on the railway.

33. Any additional expenses which Network Rail may reasonably incur in altering, reconstructing or maintaining railway property under any powers existing at the making of this Order by reason of the existence of a specified work or a protective work must, provided that 56 days' previous notice of the commencement of such alteration, reconstruction or maintenance has been given to the undertaker, be repaid by the undertaker to Network Rail.

34.—(1) The undertaker must pay to Network Rail all reasonable costs, charges, damages and expenses not otherwise provided for in this Part of this Schedule which may be occasioned to or reasonably incurred by Network Rail—

- (a) by reason of the construction or maintenance of a specified work or a protective work or the failure thereof; or
- (b) by reason of any act or omission of the undertaker or of any person in the undertaker's employ or of the undertaker's contractors or others whilst engaged upon a specified work or a protective work,

and the undertaker must indemnify and keep indemnified Network Rail from and against all claims and demands arising out of or in connection with a specified work or a protective work or any such failure, act or omission; and the fact that any act or thing may have been done by Network Rail on behalf of the undertaker or in accordance with plans approved by the engineer or in accordance with any requirement of the engineer or under his supervision will not (if it was done without negligence on the part of Network Rail or of any person in its employ or of its contractors or agents) excuse the undertaker from any liability under the provisions of this sub-paragraph.

(2) Network Rail must give the undertaker reasonable notice of any such claim or demand and no settlement or compromise of such a claim or demand is to be made without the prior written consent of the undertaker.

(3) The sums payable by the undertaker under sub-paragraph (1) may include a sum equivalent to the relevant costs.

(4) In no circumstances is the undertaker liable to Network Rail under sub-paragraph (1) for any indirect or consequential loss or loss of profits, save that the sums payable by the undertaker under that sub-paragraph include a sum equivalent to the relevant costs in circumstances where—

- (a) Network Rail is liable to make payment of the relevant costs pursuant to the terms of an agreement between Network Rail and a train operator; and
- (b) the existence of that agreement and the extent of Network Rail's liability to make payment of the relevant costs pursuant to its terms has previously been disclosed in writing to the undertaker,

but not otherwise.

(5) Subject to the terms of any agreement between Network Rail and a train operator regarding the timing or method of payment of the relevant costs in respect of that train operator, Network Rail must promptly pay to each train operator the amount of any sums which Network Rail receives under sub-paragraph (3) which relates to the relevant costs of that train operator.

(6) The obligation under sub-paragraph (3) to pay Network Rail the relevant costs is, in the event of default, enforceable directly by any train operator concerned to the extent that such sums would be payable to that operator under sub-paragraph (5).

(7) In this paragraph—

“the relevant costs” means the costs, direct losses and expenses (including loss of revenue) reasonably incurred by each train operator as a consequence of any restriction of the use of Network Rail's railway network as a result of the construction, maintenance or failure of a specified work or a protective work or any such act or omission as mentioned in sub-paragraph (1); and



“train operator” means any person who is authorised to act as the operator of a train by a licence under section 8 (licences) of the Railways Act 1993.

**35.** Network Rail must, on receipt of a request from the undertaker, at a frequency to be agreed between the undertaker and Network Rail, provide the undertaker free of charge with written estimates of the costs, charges, expenses, future cost forecasts and other liabilities for which the undertaker is or will become liable under this Part of this Schedule (including the amount of the relevant costs mentioned in paragraph 34) and with such information as may reasonably enable the undertaker to assess the reasonableness of any such estimate or claim made or to be made under this Part of this Schedule (including any claim relating to those relevant costs).

**36.** In the assessment of any sums payable to Network Rail under this Part of this Schedule there must not be taken into account any increase in the sums claimed that is attributable to any action taken by or any agreement entered into by Network Rail if that action or agreement was not reasonably necessary and was taken or entered into with a view to obtaining the payment of those sums by the undertaker under this Part of this Schedule or increasing the sums so payable.

**37.** The undertaker and Network Rail may, subject in the case of Network Rail to compliance with the terms of its network licence, enter into, and carry into effect, agreements for the transfer to the undertaker of—

- (a) any railway property shown on the works plans and/or land plans and described in the book of reference;
- (b) any lands, works or other property held in connection with any such railway property; and
- (c) any rights and obligations (whether or not statutory) of Network Rail relating to any railway property or any lands, works or other property referred to in this paragraph.

**38.** Nothing in this Order, or in any enactment incorporated with or applied by this Order, prejudices or affects the operation of Part 1 (the provision of railway services) of the Railways Act 1993.

**39.** The undertaker must give written notice to Network Rail where any application is required and is proposed to be made for the undertaker’s consent under article 8 (consent to transfer benefit of the Order) and any such notice must be given no later than 28 days before any such application is made and must describe or give (as appropriate)—

- (a) the nature of the application to be made;
- (b) the extent of the geographical area to which the application relates; and
- (c) the name and address of the person acting for the decision-maker to whom the application is to be made.

**40.** The undertaker must no later than 28 days from the date that the documents referred to in article 43(1) (certification of plans, etc.) are submitted to and certified by the Secretary of State in accordance with article 43, provide a set of those documents to Network Rail in the form of a computer disc with read only memory.

## PART 4

### FOR THE PROTECTION OF NATIONAL GRID

#### **Application**

**41.** For the protection of National Grid as referred to in this Part of this Schedule the following provisions will, unless otherwise agreed in writing between the undertaker and National Grid, have effect.

## Interpretation

42. In this Part of this Schedule—

“1991 Act” means the New Roads and Street Works Act 1991;

“alternative apparatus” means appropriate alternative apparatus to the satisfaction of National Grid to enable National Grid to fulfil its statutory functions in a manner no less efficient than previously;

“apparatus” means—

(a) in the case of National Grid Electricity Transmission Plc, electric lines or electrical plant as defined in the Electricity Act 1989, belonging to or maintained by National Grid Electricity Transmission Plc;

(b) in the case of National Grid Gas Plc, any mains, pipes or other apparatus belonging to or maintained by National Grid Gas Plc for the purposes of gas supply;

together with any replacement apparatus and such other apparatus constructed pursuant to the Order that becomes operational apparatus of National Grid for the purposes of transmission, distribution and/or supply and includes any structure in which apparatus is or will be lodged or which gives or will give access to apparatus;

“authorised works” has the same meaning as is given to the term “authorised development” in article 2 (interpretation) of this Order and includes any associated development authorised by the Order and for the purposes of this Part of this Schedule includes the use and maintenance of the authorised works and construction of any works authorised by this Schedule;

“deed of consent” means a deed of consent, crossing agreement, deed of variation or new deed of grant agreed between the parties acting reasonably in order to vary and/or replace existing easements, agreements, enactments and other such interests so as to secure land rights and interests as are necessary to carry out, maintain, operate and use the apparatus in a manner consistent with the terms of this Part of this Schedule;

“functions” includes powers and duties;

“ground mitigation scheme” means a scheme approved by National Grid (such approval not to be unreasonably withheld or delayed) setting out the necessary measures (if any) for a ground subsidence event;

“ground monitoring scheme” means a scheme for monitoring ground subsidence which sets out the apparatus which is to be subject to such monitoring, the extent of land to be monitored, the manner in which ground levels are to be monitored, the timescales of any monitoring activities and the extent of ground subsidence which, if exceeded, is to require the undertaker to submit for National Grid’s approval a ground mitigation scheme;

“ground subsidence event” means any ground subsidence identified by the monitoring activities set out in the ground monitoring scheme that has exceeded the level described in the ground monitoring scheme as requiring a ground mitigation scheme;

“in” in a context referring to apparatus or alternative apparatus in land includes a reference to apparatus or alternative apparatus under, over, across, along or upon such land;

“maintain” and “maintenance” is to include the ability and right to do any of the following in relation to any apparatus or alternative apparatus of the National Grid including construct, use, repair, alter, inspect, renew or remove the apparatus;

“National Grid” means National Grid Electricity Transmission Plc, (company number 02366977), and National Grid Gas Plc, (company number 02006000), both companies registered at 1-3 Strand, London WC2N 5EH;

“plan” or “plans” include all designs, drawings, specifications, method statements, soil reports, programmes, calculations, risk assessments and other documents that are reasonably necessary properly and sufficiently to describe and assess the works to be executed;

“specified works” means any of the authorised works or activities undertaken in association with the authorised works which:

- (a) will or may be situated over, or within 15 metres measured in any direction of any apparatus the removal of which has not been required by the undertaker under paragraph 47(2) or otherwise;
- (b) may in any way adversely affect any apparatus the removal of which has not been required by the undertaker under paragraph 47(2) or otherwise; and/or
- (c) include any of the activities that are referred to in paragraph 8 of T/SP/SSW/22 (National Grid's policies for safe working in proximity to gas apparatus "Specification for safe working in the vicinity of National Grid, High pressure Gas pipelines and associated installation requirements for third parties T/SP/SSW/22").

**43.** Except for paragraphs 44 (apparatus of undertakers in stopped up streets), 49 (retained apparatus: protection gas undertakers), 50 (retained apparatus: protection electricity undertakers), 51 (expenses) and 52 (indemnity) of this Schedule which will apply in respect of the exercise of all or any powers under the Order affecting the rights and apparatus of National Grid, the other provisions of this Schedule do not apply to apparatus in respect of which the relations between the undertaker and National Grid are regulated by the provisions of Part 3 of the 1991 Act.

#### **Apparatus of Undertakers in stopped up streets**

**44.—(1)** Without prejudice to the generality of any other protection afforded to National Grid elsewhere in the Order, where any street is stopped up under article 13 (permanent stopping up of streets), if National Grid has any apparatus in the street or accessed via that street National Grid will be entitled to the same rights in respect of such apparatus as it enjoyed immediately before the stopping up and the undertaker will grant to National Grid, or will procure the granting to National Grid of, legal easements reasonably satisfactory to National Grid in respect of such apparatus and access to it prior to the stopping up of any such street or highway.

(2) Notwithstanding the temporary stopping up or diversion of any highway under the powers of article 14 (temporary stopping up of streets), National Grid will be at liberty at all times to take all necessary access across any such stopped up highway and/or to execute and do all such works and things in, upon or under any such highway as may be reasonably necessary or desirable to enable it to maintain any apparatus which at the time of the stopping up or diversion was in that highway.

#### **Protective works to buildings**

**45.—(1)** The undertaker, in the case of the powers conferred by article 18 (protective work to buildings), must exercise those powers so as not to obstruct or render less convenient the access to any apparatus without the written consent of National Grid and, if by reason of the exercise of those powers any damage to any apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal or abandonment) or property of National Grid or any interruption in the supply of electricity and/or gas, as the case may be, by National Grid is caused, the undertaker must bear and pay on demand the cost reasonably incurred by National Grid in making good such damage or restoring the supply; and, subject to sub-paragraph (2), must—

- (a) pay compensation to National Grid for any loss sustained by it; and
- (b) indemnify National Grid against all claims, demands, proceedings, costs, damages and expenses which may be made or taken against or recovered from or incurred by National Grid, by reason of any such damage or interruption.

(2) Nothing in this paragraph imposes any liability on the undertaker with respect to any damage or interruption to the extent that such damage or interruption is attributable to the act, neglect or default of National Grid or its contractors or workmen; and National Grid will give to the undertaker reasonable notice of any claim or demand as aforesaid and no settlement or compromise thereof is to be made by National Grid, save in respect of any payment required under a statutory compensation scheme, without first consulting the undertaker and giving the undertaker an opportunity to make representations as to the claim or demand.

## **Acquisition of land**

46.—(1) Regardless of any provision in this Order or anything shown on the land plans or contained in the book of reference to the Order, the undertaker may not acquire any land interest or apparatus or override any easement and/or other interest of National Grid otherwise than by agreement.

(2) As a condition of agreement between the parties in paragraph 46(1), prior to the carrying out of any part of the authorised works (or in such other timeframe as may be agreed between National Grid and the undertaker) that are subject to the requirements of this Part of this Schedule that will cause any conflict with or breach the terms of any easement and/or other legal or land interest of National Grid and/or affects the provisions of any enactment or agreement regulating the relations between National Grid and the undertaker in respect of any apparatus laid or erected in land belonging to or secured by the undertaker, the undertaker must as National Grid reasonably requires enter into such deeds of consent upon such terms and conditions as may be agreed between National Grid and the undertaker acting reasonably and which must be no less favourable on the whole to National Grid unless otherwise agreed by National Grid, and it will be the responsibility of the undertaker to procure and/or secure the consent and entering into of such deeds and variations by all other third parties with an interest in the land at that time who are affected by such authorised works.

(3) The undertaker and National Grid agree that where there is any inconsistency or duplication between the provisions set out in this Part of this Schedule relating to the relocation and/or removal of apparatus (including but not limited to the payment of costs and expenses relating to such relocation and/or removal of apparatus) and the provisions of any existing easement, rights, agreements and licences granted, used, enjoyed or exercised by National Grid and/or other enactments relied upon by National Grid as of right or other use in relation to the apparatus, then the provisions in this Schedule prevail.

(4) Any agreement or consent granted by National Grid under paragraphs 49 or 50 or any other paragraph of this Part of this Schedule, is not to be taken to constitute agreement under sub-paragraph 46(1).

## **Removal of apparatus**

47.—(1) If, in the exercise of the agreement reached in accordance with paragraph 46 or in any other authorised manner, the undertaker acquires any interest in any land in which any apparatus is placed, that apparatus must not be removed under this Part of this Schedule and any right of National Grid to maintain that apparatus in that land must not be extinguished until alternative apparatus has been constructed, and is in operation to the reasonable satisfaction of National Grid in question in accordance with sub-paragraphs (2) to (5) inclusive.

(2) If, for the purpose of executing any works in, on, under or over any land purchased, held, appropriated or used under this Order, the undertaker requires the removal of any apparatus placed in that land, it must give to National Grid 56 days' advance written notice of that requirement, together with a plan of the work proposed, and of the proposed position of the alternative apparatus to be provided or constructed and in that case (or if in consequence of the exercise of any of the powers conferred by this Order National Grid reasonably needs to remove any of its apparatus) the undertaker must, subject to sub-paragraph (3), afford to National Grid to its satisfaction (taking into account paragraph 48(1) below) the necessary facilities and rights—

- (a) for the construction of alternative apparatus in other land of or land secured by the undertaker; and
- (b) subsequently for the maintenance of that apparatus.

(3) If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of or land secured by the undertaker, or the undertaker is unable to afford such facilities and rights as are mentioned in sub-paragraph (2), in the land in which the alternative apparatus or part of such apparatus is to be constructed, National Grid must, on receipt of a written notice to that effect from the undertaker, take such steps as are reasonable in the circumstances in an endeavour to obtain the necessary facilities and rights in the land in which the alternative

apparatus is to be constructed save that this obligation is not to extend to the requirement for National Grid to use its compulsory purchase powers to this end unless it elects to so do.

(4) Any alternative apparatus to be constructed in land of or land secured by the undertaker under this Part of this Schedule must be constructed in such manner and in such line or situation as may be agreed between National Grid and the undertaker.

(5) National Grid must, after the alternative apparatus to be provided or constructed has been agreed, and subject to the grant to National Grid of any such facilities and rights as are referred to in sub-paragraphs (2) or (3), proceed without unnecessary delay to construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by the undertaker to be removed under the provisions of this Part of this Schedule.

### **Facilities and rights for alternative apparatus**

**48.**—(1) Where, in accordance with the provisions of this Part of this Schedule, the undertaker affords to or secures for National Grid facilities and rights in land for the construction, use, maintenance and protection of alternative apparatus in substitution for apparatus to be removed, those facilities and rights must be granted upon such terms and conditions as may be agreed between the undertaker and National Grid and must be no less favourable on the whole to National Grid than the facilities and rights enjoyed by it in respect of the apparatus to be removed unless otherwise agreed by National Grid.

(2) If the facilities and rights to be afforded by the undertaker and agreed with National Grid under sub-paragraph (1) above in respect of any alternative apparatus, and the terms and conditions subject to which those facilities and rights are to be granted, are less favourable on the whole to National Grid than the facilities and rights enjoyed by it in respect of the apparatus to be removed and the terms and conditions to which those facilities and rights are subject in the matter will be referred to arbitration in accordance with paragraph 56 of this Part of this Schedule and the arbitrator is to make such provision for the payment of compensation by the undertaker to National Grid as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case.

### **Retained apparatus: protection Gas Undertakers**

**49.**—(1) Not less than 56 days before the commencement of any specified works the undertaker must submit to National Grid a plan and, if reasonably required by National Grid, a ground monitoring scheme in respect of those works.

(2) The plan to be submitted to National Grid under sub-paragraph (1) must include a method statement and describe—

- (a) the exact position of the works;
- (b) the level at which these are proposed to be constructed or renewed;
- (c) the manner of their construction or renewal including details of excavation, positioning of plant etc.;
- (d) the position of all apparatus;
- (e) by way of detailed drawings, every alteration proposed to be made to or close to any such apparatus; and
- (f) any intended maintenance regimes.

(3) The undertaker must not commence any works to which sub-paragraphs (1) and (2) apply until National Grid has given written approval of the plan so submitted.

(4) Any approval of National Grid required under sub-paragraph (3)—

- (a) may be given subject to reasonable conditions for any purpose mentioned in sub-paragraphs (5) or (7); and,
- (b) must not be unreasonably withheld.

(5) In relation to any work to which sub-paragraphs (1) and/or (2) apply, National Grid may require such modifications to be made to the plans as may be reasonably necessary for the purpose of securing its apparatus against interference or risk of damage or for the purpose of providing or securing proper and convenient means of access to any apparatus.

(6) Works to which this paragraph applies must only be executed in accordance with the plan, submitted under sub-paragraph (1) or as relevant sub paragraph (4), as approved or as amended from time to time by agreement between the undertaker and National Grid and in accordance with such reasonable requirements as may be made in accordance with sub-paragraphs (5) or (7) by National Grid for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and National Grid will be entitled to watch and inspect the execution of those works.

(7) Where National Grid requires any protective works to be carried out by itself or by the undertaker (whether of a temporary or permanent nature) such protective works, inclusive of any measures or schemes required and approved as part of the plan approved pursuant to this paragraph, must be carried out to National Grid's satisfaction prior to the commencement of any authorised works (or any relevant part thereof) for which protective works are required and National Grid must give 56 days' notice of such works from the date of submission of a plan pursuant to this paragraph (except in an emergency).

(8) If National Grid in accordance with sub-paragraphs (5) or (7) and in consequence of the works proposed by the undertaker, reasonably requires the removal of any apparatus and gives written notice to the undertaker of that requirement, paragraphs 41 to 43 and 46 to 48 apply as if the removal of the apparatus had been required by the undertaker under paragraph 47(2).

(9) Nothing in this paragraph precludes the undertaker from submitting at any time or from time to time, but in no case less than 56 days before commencing the execution of the authorised works, a new plan, instead of the plan previously submitted, and having done so the provisions of this paragraph will apply to and in respect of the new plan.

(10) The undertaker will not be required to comply with sub-paragraph (1) where it needs to carry out emergency works as defined in the 1991 Act but in that case it must give to National Grid notice as soon as is reasonably practicable and a plan of those works and must—

- (a) comply with sub-paragraphs (5), (6) and (7) insofar as is reasonably practicable in the circumstances; and
- (b) comply with sub-paragraph (11) at all times.

(11) At all times when carrying out any works authorised under the Order National Grid must comply with National Grid's policies for safe working in proximity to gas apparatus "Specification for safe working in the vicinity of National Grid, High pressure Gas pipelines and associated installation requirements for third parties T/SP/SSW22" and HSE's "HS(~G)47 Avoiding Danger from underground services".

(12) As soon as reasonably practicable after any ground subsidence event attributable to the authorised development the undertaker must implement an appropriate ground mitigation scheme save that National Grid retains the right to carry out any further necessary protective works for the safeguarding of its apparatus and can recover any such costs in line with paragraph 51.

### **Retained apparatus: protection Electricity Undertakers**

**50.**—(1) Not less than 56 days before the commencement of any authorised works that are near to, or will or may affect, any apparatus the removal of which has not been required by the undertaker under paragraph 47(2) or otherwise, the undertaker must submit to National Grid a plan of the works to be executed and seek from National Grid details of the underground extent of their electricity tower foundations.

(2) In relation to works which will or may be situated on, over, under or within (i) 15(a) metres measured in any direction of any apparatus, or (ii) involve embankment works within 15 metres of

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(a) Clearances required are 15m or below in relation to most apparatus (except if a motorway/sky cradle is involved or in certain other specified situations where up to 30m clearance may be required).

any apparatus, the plan to be submitted to National Grid under sub-paragraph (1) must include a method statement and describe—

- (a) the exact position of the works;
- (b) the level at which these are proposed to be constructed or renewed;
- (c) the manner of their construction or renewal including details of excavation, positioning of plant;
- (d) the position of all apparatus;
- (e) by way of detailed drawings, every alteration proposed to be made to or close to any such apparatus; and
- (f) any intended maintenance regimes.

(3) In relation to any works which will or may be situated on, over, under or within 10 metres of any part of the foundations of an electricity tower or between any two or more electricity towers, the plan to be submitted under sub-paragraph (1) must, in addition to the matters set out in sub-paragraph (2), include a method statement describing—

- (a) details of any cable trench design including route, dimensions, clearance to pylon foundations;
- (b) demonstration that pylon foundations will not be affected prior to, during and post construction;
- (c) details of load bearing capacities of trenches;
- (d) details of cable installation methodology including access arrangements, jointing bays and backfill methodology;
- (e) a written management plan for high voltage hazard during construction and ongoing maintenance of the cable route;
- (f) written details of the operations and maintenance regime for the cable, including frequency and method of access;
- (g) assessment of earth rise potential if reasonably required by National Grid's engineers; and
- (h) evidence that trench bearing capacity is to be designed to 26 tonnes to take the weight of overhead line construction traffic.

(4) The undertaker must not commence any works to which sub-paragraphs (2) or (3) apply until National Grid has given written approval of the plan so submitted.

(5) Any approval of National Grid required under sub-paragraph (4)—

- (a) may be given subject to reasonable conditions for any purpose mentioned in sub-paragraphs (6) or (8); and,
- (b) must not be unreasonably withheld.

(6) In relation to any work to which sub-paragraphs (2) or (3) apply, National Grid may require such modifications to be made to the plans as may be reasonably necessary for the purpose of securing its apparatus against interference or risk of damage or for the purpose of providing or securing proper and convenient means of access to any apparatus.

(7) Works to which this paragraph applies must only be executed in accordance with the plan, submitted under sub-paragraph (1) or as relevant sub-paragraph (5), as approved or as amended from time to time by agreement between the undertaker and National Grid and in accordance with such reasonable requirements as may be made in accordance with sub-paragraphs (6) or (8) by National Grid for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and National Grid will be entitled to watch and inspect the execution of those works.

(8) Where National Grid requires any protective works to be carried out by itself or by the undertaker (whether of a temporary or permanent nature) such protective works, inclusive of any measures or schemes required and approved as part of the plan approved pursuant to this paragraph, must be carried out to National Grid's satisfaction prior to the commencement of any authorised works (or any relevant part thereof) for which protective works are required and

National Grid must give 56 days' notice of such works from the date of submission of a plan pursuant to this paragraph (except in an emergency).

(9) If National Grid in accordance with sub-paragraphs (6) or (8) and in consequence of the works proposed by the undertaker, reasonably requires the removal of any apparatus and gives written notice to the undertaker of that requirement, paragraphs 41 to 43 and 46 to 48 apply as if the removal of the apparatus had been required by the undertaker under paragraph 47(2).

(10) Nothing in this paragraph precludes the undertaker from submitting at any time or from time to time, but in no case less than 56 days before commencing the execution of the authorised works, a new plan, instead of the plan previously submitted, and having done so the provisions of this paragraph apply to and in respect of the new plan.

(11) The undertaker will not be required to comply with sub-paragraph (1) where it needs to carry out emergency works as defined in the 1991 Act but in that case it must give to National Grid notice as soon as is reasonably practicable and a plan of those works and must—

- (a) comply with sub-paragraphs (6), (7) and (8) insofar as is reasonably practicable in the circumstances; and
- (b) comply with sub-paragraph (12) at all times.

(12) At all times when carrying out any works authorised under the Order, the undertaker must comply with National Grid's policies for development near overhead lines EN43-8 and HSE's guidance note 6 "Avoidance of Danger from Overhead Lines".

## **Expenses**

**51.—**(1) Subject to the following provisions of this paragraph, the undertaker must pay to National Grid on demand all charges, costs and expenses reasonably anticipated or incurred by National Grid in, or in connection with, the inspection, removal, relaying or replacing, alteration or protection of any apparatus or the construction of any new or alternative apparatus which may be required in consequence of the execution of any authorised works as are referred to in this Part of this Schedule including without limitation—

- (a) any costs reasonably incurred by or compensation properly paid by National Grid in connection with the acquisition of rights or the exercise of statutory powers for such apparatus including without limitation all costs incurred by National Grid as a consequence of National Grid—
  - (i) using its own compulsory purchase powers to acquire any necessary rights under paragraph 47(3); and/or
  - (ii) exercising any compulsory purchase powers in the Order transferred to or benefitting National Grid;
- (b) in connection with the cost of the carrying out of any diversion work or the provision of any alternative apparatus;
- (c) the cutting off of any apparatus from any other apparatus or the making safe of redundant apparatus;
- (d) the approval of plans;
- (e) the carrying out of protective works, plus a capitalised sum to cover the cost of maintaining and renewing permanent protective works; and
- (f) the survey of any land, apparatus or works, the inspection and monitoring of works or the installation or removal of any temporary works reasonably necessary in consequence of the execution of any such works referred to in this Part of this Schedule.

(2) There will be deducted from any sum payable under sub-paragraph (1) the value of any apparatus removed under the provisions of this Part of this Schedule and which is not re-used as part of the alternative apparatus, that value being calculated after removal.

(3) If in accordance with the provisions of this Part of this Schedule—



- (a) apparatus of better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus of worse type, of smaller capacity or of smaller dimensions; or
- (b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which the existing apparatus was situated,

and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by the undertaker or, in default of agreement, is not determined by arbitration in accordance with article 45 (arbitration) to be necessary, then, if such placing involves cost in the construction of works under this Part of this Schedule exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which apart from this sub-paragraph would be payable to National Grid by virtue of sub-paragraph (1) will be reduced by the amount of that excess save where it is not possible in the circumstances to obtain the existing type of apparatus at the same capacity and dimensions or place at the existing depth in which case full costs will be borne by the undertaker.

(4) For the purposes of sub-paragraph (3)—

- (a) an extension of apparatus to a length greater than the length of existing apparatus will not be treated as a placing of apparatus of greater dimensions than those of the existing apparatus; and
- (b) where the provision of a joint in a pipe or cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole will be treated as if it also had been agreed or had been so determined.

(5) An amount which apart from this sub-paragraph would be payable to National Grid in respect of works by virtue of sub-paragraph (1) will, if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on National Grid any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, be reduced by the amount which represents that benefit.

## **Indemnity**

**52.—**(1) Subject to sub-paragraphs (2) and (3), if by reason or in consequence of the construction of any such works authorised by this Part of this Schedule or in consequence of the construction, use, maintenance or failure of any of the authorised works by or on behalf of the undertaker or in consequence of any act or default of the undertaker (or any person employed or authorised by him) in the course of carrying out such works, including without limitation works carried out by the undertaker under this Part of this Schedule or any subsidence resulting from any of these works, any damage is caused to any apparatus or alternative apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of the authorised works) or property of National Grid, or there is any interruption in any service provided, or in the supply of any goods, by National Grid, or National Grid becomes liable to pay any amount to any third party, the undertaker will—

- (a) bear and pay on demand the cost reasonably incurred by National Grid in making good such damage or restoring the supply; and
- (b) indemnify National Grid for any other expenses, loss, demands, proceedings, damages, claims, penalty or costs incurred by or recovered from National Grid, by reason or in consequence of any such damage or interruption or National Grid becoming liable to any third party as aforesaid other than arising from any default of National Grid.

(2) The fact that any act or thing may have been done by National Grid on behalf of the undertaker or in accordance with a plan approved by National Grid or in accordance with any requirement of National Grid or under its supervision will not (unless sub-paragraph (3) applies), excuse the undertaker from liability under the provisions of this sub-paragraph (1) unless National Grid fails to carry out and execute the works properly with due care and attention and in a skilful and workman like manner or in a manner that does not accord with the approved plan.

(3) Nothing in sub-paragraph (1) imposes any liability on the undertaker in respect of—

- (a) any damage or interruption to the extent that it is attributable to the neglect or default of National Grid, its officers, servants, contractors or agents; and
- (b) any authorised works and/or any other works authorised by this Part of this Schedule carried out by National Grid as an assignee, transferee or lessee of National Grid with the benefit of the Order pursuant to section 156 of the Planning Act 2008 or article 8 (consent to transfer benefit of the Order) subject to the proviso that once such works become apparatus (“new apparatus”), any authorised works yet to be executed and not falling within this sub-section (3)(b) will be subject to the full terms of this Part of this Schedule including this paragraph 52.

(4) National Grid must give the undertaker reasonable notice of any such third party claim or demand and no settlement or compromise must, unless payment is required in connection with a statutory compensation scheme, be made without first consulting the undertaker and considering their representations.

### **Enactments and agreements**

**53.** Save to the extent provided for to the contrary elsewhere in this Part of this Schedule or by agreement in writing between National Grid and the undertaker, nothing in this Part of this Schedule affects the provisions of any enactment or agreement regulating the relations between the undertaker and National Grid in respect of any apparatus laid or erected in land belonging to the undertaker on the date on which this Order is made.

### **Co-operation**

**54.—(1)** Where in consequence of the proposed construction of any of the authorised works, the undertaker or National Grid requires the removal of apparatus under paragraph 47(2) or National Grid makes requirements for the protection or alteration of apparatus under paragraph 49 or 50, the undertaker must use its best endeavours to co-ordinate the execution of the works in the interests of safety and the efficient and economic execution of the authorised development and taking into account the need to ensure the safe and efficient operation of National Grid’s undertaking and National Grid must use its best endeavours to co-operate with the undertaker for that purpose.

(2) For the avoidance of doubt whenever National Grid’s consent, agreement or approval is required in relation to plans, documents or other information submitted by the undertaker or the taking of action by the undertaker, it must not be unreasonably withheld or delayed.

### **Access**

**55.** If in consequence of the agreement reached in accordance with paragraph 46(1) or the powers granted under this Order the access to any apparatus is materially obstructed, the undertaker must provide such alternative means of access to such apparatus as will enable National Grid to maintain or use the apparatus no less effectively than was possible before such obstruction.

### **Arbitration**

**56.** Save for differences or disputes arising under paragraph 47(2), 47(4), 48(1), 49, 50 and 52(4) any difference or dispute arising between the undertaker and National Grid under this Part of this Schedule must, unless otherwise agreed in writing between the undertaker and National Grid, be determined by arbitration in accordance with article 45 (arbitration).

## PART 5

### FOR THE PROTECTION OF UNITED KINGDOM OIL PIPELINES LIMITED AND WEST LONDON PIPELINE AND STORAGE LIMITED

**57.** For the protection of the protected persons referred to in this Part of this Schedule the following provisions have effect, unless otherwise agreed in writing between the undertaker and the protected person concerned.

**58.** In this Part of this Schedule—

“alternative apparatus” means alternative apparatus adequate to enable the protected person in question to fulfil its functions in relation to transporting oil, gas and fuel in a manner no less efficient than previously;

“apparatus” means—

- (a) in the case of a gas or other fuel undertaker, any mains, pipes, pipelines or other apparatus belonging to or maintained by a transporter within the meaning of Part 1 (gas supply) of the Gas Act 1986(a), the Pipe-lines Act 1962(b) and the Pipelines Safety Regulations 1996 (c) for the purposes of such supply; and
- (b) in the case of West London Pipeline and Storage any oil apparatus, and includes any structure in which apparatus is or is to be lodged or which gives or will give access to apparatus;

“functions” includes powers and duties;

“in”, in a context referring to apparatus or alternative apparatus in land, includes a reference to apparatus or alternative apparatus under, over or upon land;

“oil apparatus” means any pipe-line, apparatus and works as described in section 65(2) (meaning of “pipe-line”) of the Pipe-lines Act 1962(d) and all protective wrappings, sleeves and slabs, together with ancillary cables, protection equipment and markers; and such legal interest, and benefit of property rights and covenants as are vested in United Kingdom Oil Pipelines Limited or West London Pipeline and Storage Limited in respect of such items;

“plan” includes all designs, drawings, specifications, method statements, soil reports, programmes, calculations, risk assessments and other documents that are reasonably necessary properly and sufficiently to describe the works to be executed;

“protected person” means—

- (a) the United Kingdom Oil Pipelines Limited, company number 09416180, whose registered offices is 5-7, Alexandra Road, Hemel Hempstead, Hertfordshire, HP2 5BS and its successors in title and function; and
- (b) West London Pipeline and Storage Limited, company number 01918796, whose registered office is 5-7, Alexandra Road, Hemel Hempstead, Hertfordshire, HP2 5BS and its successors in title and function;

for the area of the authorised development, and in relation to any apparatus, means the protected person to whom it belongs or by whom it is maintained.

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(a) 1986 c. 44. A new section 7 was substituted by section 5 of the Gas Act 1995 (c. 45), and was further amended by sections 3(2) and 76 of, and paragraphs 1 and 4 of Schedule 6, and Schedule 8, to, the Utilities Act 2000 (c. 27), sections 149(1) and (5) and 197(9) of, and part 1 of Schedule 23 to, the Energy Act 2004 (c. 20) and S.I. 2011/2704.

(b) c. 58.

(c) S.I. 1996/825.

(d) 1962 c. 58. Section 65(2) was amended by paragraphs 1 and 6 of Schedule 2 to the Energy Act 2011 (c. 16), S.I. 2000/1937 and S.I. 2011/2305.

## **On street apparatus**

59. This Part of this Schedule does not apply to apparatus in respect of which the relations between the undertaker and the protected person are regulated by the provisions of Part 3 (street works in England and Wales) of the 1991 Act.

## **Apparatus in stopped up streets**

60.—(1) Where any street is stopped up under article 13 (permanent stopping up of streets), any protected person whose apparatus is in the street has the same powers and rights in respect of that apparatus as it enjoyed immediately before the stopping up and the undertaker must grant to the protected person legal easements reasonably satisfactory to the protected person in respect of such apparatus and access to it, but nothing in this paragraph affects any right of the undertaker or of the protected person to require the removal of that apparatus under paragraph 63 or the power of the undertaker to carry out works under paragraph 65.

(2) Regardless of the temporary stopping up or diversion of any highway under the powers conferred by article 14 (temporary stopping up of streets), a protected person is at liberty at all times to take all necessary access across any such stopped up highway and to execute and do all such works and things in, upon or under any such highway as may be reasonably necessary or desirable to enable it to maintain any apparatus which at the time of the stopping up or diversion was in that highway.

## **Protective works to buildings**

61. The undertaker, in the case of the powers conferred by article 18 (protective work to buildings), must exercise those powers so as not to obstruct or render less convenient the access to any apparatus.

## **Acquisition of land**

62. Regardless of any provision in this Order or anything shown on the land plans, the undertaker must not acquire any apparatus otherwise than by agreement.

## **Removal of apparatus**

63.—(1) If, in the exercise of the powers conferred by this Order, the undertaker acquires any interest in any land in which any apparatus is placed or over which access to any apparatus is enjoyed or requires that the protected person's apparatus is relocated or diverted, that apparatus must not be removed under this Part of this Schedule, and any right of a protected person to maintain that apparatus in that land and to gain access to it must not be extinguished, until alternative apparatus has been constructed and is in operation, and access to it has been provided, to the reasonable satisfaction of the protected person in question in accordance with sub-paragraphs (2) to (7).

(2) If, for the purpose of executing any works in, on or under any land purchased, held, appropriated or used under this Order, the undertaker requires the removal of any apparatus placed in that land, the undertaker must give to the protected person in question 56 days' written notice of that requirement, together with a plan of the work proposed, and of the proposed position of the alternative apparatus to be provided or constructed and in that case (or if in consequence of the exercise of any of the powers conferred by this Order an undertaker reasonably needs to remove any of its apparatus) the undertaker must, subject to sub-paragraph (3), afford to the protected person the necessary facilities and rights for the construction of alternative apparatus in other land of the undertaker and subsequently for the maintenance of that apparatus.

(3) If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of the undertaker, or the undertaker is unable to afford such facilities and rights as are mentioned in sub-paragraph (2) in the land in which the alternative apparatus or part of such apparatus is to be constructed the protected person must, on receipt of a written notice to that effect from the undertaker, as soon as reasonably possible use all reasonable endeavours to obtain

the necessary facilities and rights in the land in which the alternative apparatus is to be constructed.

(4) Any alternative apparatus to be constructed in land of the undertaker under this Part of this Schedule must be constructed in such manner and in such line or situation as may be agreed between the protected person in question and the undertaker both acting reasonably or in default of agreement settled by arbitration in accordance with article 45 (arbitration).

(5) The protected person in question must, after the alternative apparatus to be provided or constructed has been agreed or settled by arbitration in accordance with article 45 (arbitration), and after the grant to the protected person of any such facilities and rights as are referred to in subparagraphs (2) or (3), proceed without unnecessary delay to construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by the undertaker to be removed under the provisions of this Part of this Schedule.

(6) Regardless of anything in sub-paragraph (5), if the undertaker gives notice in writing to the protected person in question that the undertaker intends to execute any work, or part of any work in connection with the construction or removal of apparatus in any land of the undertaker, that work, instead of being executed by the protected person, can if reasonable in the circumstances be executed by the undertaker without unnecessary delay under the superintendence, if given, and to the reasonable satisfaction of the protected person.

(7) Nothing in sub-paragraph (6) authorises the undertaker to execute the placing, installation, bedding, packing, removal, connection or disconnection of any apparatus, or execute any filling around the apparatus (where the apparatus is laid in a trench) within—

- (a) 300 millimetres of apparatus other than oil, gas or fuel apparatus; and
- (b) 3000 millimetres of oil, gas or other fuel apparatus.

#### **Facilities and rights for alternative apparatus**

64.—(1) Where, in accordance with the provisions of this Part of this Schedule, the undertaker affords to a protected person facilities and rights for the construction and maintenance in land of the undertaker of alternative apparatus in substitution for apparatus to be removed, those facilities and rights are to be granted upon such terms and conditions as may be agreed between the undertaker and the protected person both acting reasonably in question or in default of agreement settled by arbitration in accordance with article 45 (arbitration).

(2) In settling those terms and conditions in respect of alternative apparatus the arbitrator must—

- (a) give effect to all reasonable requirements of the undertaker for ensuring the safety and efficient operation of the authorised development and for securing any subsequent alterations or adaptations of the alternative apparatus which may be required to prevent interference with any proposed works of the undertaker or the traffic on the highway;
- (b) give effect to all reasonable requirements of the permitted person for ensuring the safety and efficient operation of the relevant apparatus and alternative apparatus; and
- (c) so far as it may be reasonable and practicable to do so in the circumstances of the particular case, give effect to the terms and conditions, if any, applicable to the apparatus for which the alternative apparatus is to be substituted.

(3) If the facilities and rights to be afforded by the undertaker in respect of any alternative apparatus, and the terms and conditions subject to which those facilities and rights are to be granted, are in the opinion of the arbitrator less favourable on the whole to the protected person in question than the facilities and rights enjoyed by it in respect of the apparatus to be removed and the terms and conditions to which those facilities and rights are subject, the arbitrator must make such provision for the payment of compensation by the undertaker to that protected person as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case.

## **Retained apparatus**

**65.**—(1) Not less than 56 days before starting the execution of any works in, on or under any land purchased, held, appropriated or used under this Order that are near to, or will or may affect, any apparatus the removal of which has not been required by the undertaker under paragraph 63(2), the undertaker must submit to the protected person in question a plan of the works to be executed.

(2) Those works must be executed only in accordance with the plan submitted under sub-paragraph (1) and in accordance with such reasonable requirements as may be made in accordance with sub-paragraph (3) by the protected person for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and the protected person is entitled to watch and inspect the execution of those works and they must be carried out to the reasonable satisfaction of the protected person.

(3) Any requirements made by a protected person under sub-paragraph (2) must be made within a period of 21 days beginning with the date on which a plan under sub-paragraph (1) is submitted to it.

(4) If a protected person in accordance with sub-paragraph (3) and in consequence of the works proposed by the undertaker, reasonably requires the removal of any apparatus and gives written notice to the undertaker of that requirement, paragraphs 57 to 59 and 62 to 64 apply as if the removal of the apparatus had been required by the undertaker under paragraph 63(2).

(5) Nothing in this paragraph precludes the undertaker from submitting at any time or from time to time, but in no case less than 56 days before commencing the execution of any works, a new plan instead of the plan previously submitted, and having done so the provisions of this paragraph apply to and in respect of the new plan.

(6) The undertaker is not required to comply with sub-paragraph (1) in a case of emergency but in that case must give to the protected person in question notice as soon as is reasonably practicable and a plan of those works as soon as reasonably practicable subsequently and must comply with sub-paragraph (1) in so far as is reasonably practicable in the circumstances.

## **Expenses and costs**

**66.**—(1) Subject to the following provisions of this paragraph, the undertaker must repay to a protected person all expenses reasonably incurred by that protected person in, or in connection with, the inspection, removal, alteration or protection of any apparatus or the construction of any new apparatus which may be required in consequence of the execution of any such works as are referred to in paragraph 63(2) or 63(4), including legal and professional costs and any costs reasonably incurred in connection with the acquisition of rights under paragraph 63(3), and in watching and inspecting the execution of works under paragraph 65(2) and in making reasonable requirements under paragraph 65(3).

(2) There is to be deducted from any sum payable under sub-paragraph (1) the value of any apparatus removed under the provisions of this Part of this Schedule, that value being calculated after removal.

(3) If in accordance with the provisions of this Part of this Schedule—

- (a) apparatus of better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus of worse type, of smaller capacity or of smaller dimensions; or
- (b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which the existing apparatus was situated, and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by the undertaker or, in default of agreement, is not determined by arbitration in accordance with article 45 (arbitration) to be necessary, then, if such placing involves cost in the construction of works under this Part of this Schedule exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which apart from this sub-paragraph would be payable to

the protected person in question by virtue of sub-paragraph (1) is to be reduced by the amount of that excess.

(4) For the purposes of sub-paragraph (3)—

- (a) an extension of apparatus to a length greater than the length of existing apparatus is not to be treated as a placing of apparatus of greater dimensions than those of the existing apparatus; and
- (b) where the provision of a joint in a pipe or cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole is to be treated as if it also had been agreed or had been so determined.

(5) An amount which apart from this sub-paragraph would be payable to a protected person in respect of works by virtue of sub-paragraph (1), if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on the protected person any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, is to be reduced by the amount which represents that benefit.

**67.—**(1) Subject to sub-paragraphs (2) and (3), if by reason or in consequence of the construction of the authorised development or any such works referred to in paragraphs 61, 63(2), or 65(1), or by reason of any subsidence resulting from such development or works, any damage is caused to any apparatus or alternative apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of those works) or property of a protected person, or there is any interruption in any service provided or of any access to any apparatus, or in the supply of any goods, by any protected person, the undertaker must—

- (a) bear and pay the cost reasonably incurred by that protected person in making good such damage or restoring the supply; and
- (b) make reasonable compensation to that protected person for any other expenses, loss, damages, penalty or costs incurred by the protected person, by reason or in consequence of any such damage or interruption; and
- (c) make reasonable compensation to that protected person in respect of any claim or demand made by a third party in respect of any damage by reason or in consequence of the construction of the authorised development or any such works referred to in paragraphs 61, 63(2), or 65(1).

(2) The fact that any act or thing may have been done by a protected person on behalf of the undertaker or in accordance with a plan approved by a protected person or in accordance with any requirement of a protected person or under its supervision does not, subject to sub-paragraph (3), excuse the undertaker from liability under the provisions of sub-paragraph (1).

(3) Nothing in sub-paragraph (1) imposes any liability on the undertaker with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of a protected person, its officers, servants, contractors or agents.

(4) A protected person must give the undertaker reasonable notice of any such claim or demand and no settlement or compromise is to be made without the consent of the undertaker such consent not to be unreasonably withheld or delayed.

### **Co-operation**

**68.** Where in consequence of the proposed construction of any of the authorised development, the undertaker or a protected person requires the removal of apparatus under paragraph 63(2) or a protected person makes requirements for the protection or alteration of apparatus under paragraph 65, the undertaker must use best endeavours to co-ordinate the execution of the works in the interests of safety and the efficient and economic execution of the authorised development and taking into account the need to ensure the safe and efficient operation of the protected person's undertaking and each protected person must use its best endeavours to co-operate with the undertaker for that purpose.

**69.** Nothing in this Part of this Schedule affects the provisions of any enactment or agreement regulating the relations between the undertaker and a protected person in respect of any apparatus laid or erected in land belonging to the undertaker on the date on which this Order is made.

## PART 6

### FOR THE PROTECTION OF THE ENVIRONMENT AGENCY

**70.**—(1) The following provisions shall apply for the protection of the Agency unless otherwise agreed in writing between the undertaker and the Agency.

(2) In this part of this Schedule—

“the Agency” means the Environment Agency;

“Flood Protection Work” means work to or creation of any watercourse, any land which provides or is expected to provide flood storage capacity for any watercourse and any bank, wall, embankment, outfall or other structure, or any appliance, constructed or used for land drainage or flood defence; and

“relevant navigation” has the same meaning as in article 16 of the Order (powers in relation to relevant navigations or watercourses).

**71.**—(1) Where, in the exercise of the powers conferred by this Order, the undertaker proposes to interfere with or obstruct access by the Agency to a relevant navigation or other main river, it must give the Agency 56 days’ written notice of that requirement.

(2) Where construction and operation of the authorised development reasonably requires interference with or obstruction of the free, uninterrupted access of the Agency to a relevant navigation or other main river and it is not possible for the undertaker to give the Agency the notice required under sub-paragraph (1), a suitable alternative access, to be agreed with the Agency, will be provided prior to and for the duration of any such interference.

**72.** If, in the exercise of the powers conferred by this Order, the undertaker acquires any interest of the Agency in any land or proposes to interfere with, or remove, any of the Agency’s apparatus, it must give the Agency 56 days’ written notice before any such interest is acquired or any apparatus is interfered with or removed.

**73.** The undertaker must maintain any Flood Protection Work comprised in or affected by the authorised development in accordance with a retention, inspection and maintenance plan to be prepared by the undertaker as part of the flood compensation scheme to be approved under requirement 23.

**74.**—(1) Where maintenance of any Flood Protection Work specified in the approved retention, inspection and maintenance plan is not carried out to the reasonable satisfaction of the Agency, the Agency may by notice require the undertaker to carry out the maintenance in question to such extent as the Agency reasonably requires.

(2) If, within a reasonable period being not less than 28 days beginning with the date on which a notice in respect of any Flood Protection Work is served under sub-paragraph (1) the undertaker has failed to begin taking steps to comply with the reasonable requirements of the notice and has not subsequently made reasonably expeditious progress towards their implementation, the Agency may do what is necessary for such compliance and may recover any expenditure reasonably incurred by it in so doing from the undertaker.

(3) In the event of any dispute as to the reasonableness of any requirement of a notice served under sub-paragraph (1), the Agency must not, except in a case of urgency, exercise the powers of sub-paragraph (2) until the dispute has been finally determined.

**75.** If by reason of the construction of the authorised development or of the failure of any such works the efficiency of any Flood Protection Work is impaired, or any such Flood Protection Work is otherwise damaged, so as to require remedial action, such impairment or damage must be made good by the undertaker to the reasonable satisfaction of the Agency and if the undertaker



fails to do so, the Agency may make good the same and recover the expenditure reasonably incurred by it in doing so from the undertaker.

**76.** The undertaker must indemnify the Agency in respect of all costs, charges and expenses which it may reasonably incur or which it may sustain—

- (a) in the examination or approval of plans or other matter under this Part of this Schedule; and
- (b) in the inspection of the construction of any Flood Protection Work required by the Agency under this Part of this Schedule.

**77.** The fact that any work or thing has been executed or done in accordance with a plan approved or deemed to have been approved by the Agency, or to its satisfaction, does not (in the absence of negligence on the part of the Agency, its officers, contractors or agents) relieve the undertaker from any liability under the provisions of this Part of this Schedule.

**78.** Any dispute arising between the undertaker and the Agency under this Part of this Schedule is to be determined in accordance with article 45 (arbitration) of the Order.

## PART 7

### FOR THE PROTECTION OF THAMES WATER

#### **Access to Slough Sewage Treatment Works**

**79.**—(1) Except where it has complied with sub-paragraph (2), the undertaker must not in the exercise of the powers conferred by this Order unreasonably prevent Thames Water's access via Wood Lane to the Slough Sewage Treatment Works.

(2) Not less than 56 days prior to undertaking any works in connection with Work No. 14c (including traffic management measures, diversions, road closures and stopping up) that would affect Thames Water's access the undertaker will submit to Thames Water details of the proposed location and duration of those works and comply with its reasonable requirements for ensuring its continued access to the Slough Sewage Treatment Works.

#### **Iver South Sludge Dewatering Centre**

**80.** The undertaker must not in the exercise of the powers conferred by this Order do any works to the security fence to the Iver South Sludge Dewatering Centre.

**81.**—(1) The undertaker must not in the exercise of the powers conferred by this Order unreasonably prevent Thames Water's access over plots 26-11 and 26-12 shown on the land plans and listed in the book of reference.

(2) Not less than 56 days prior to undertaking any works in connection with Work No. 25 (including traffic management measures, diversions, road closures and stopping up) that would affect Thames Water's access over plots 26-11 and 26-12 the undertaker will submit to Thames Water details of the proposed location and duration of those works and comply with its reasonable requirements for ensuring its continued access over plots 26-11 and 26-12.

## PART 8

### FOR THE PROTECTION OF SOUTH EAST WATER

**82.** For the protection of the protected persons referred to in this Part of this Schedule the following provisions have effect, unless otherwise agreed in writing between the undertaker and the protected person concerned.

**83.** In this Part of this Schedule—

“alternative apparatus” means alternative apparatus adequate to enable the protected person in question to fulfil its statutory functions in a manner no less efficient than previously;

“apparatus” means mains, pipes, well, boreholes, tanks, service reservoirs, pumping stations (and any accessories thereof) or other apparatus, structure or treatment works belonging to or maintained by that undertaker for the purposes of water supply;

“functions” includes powers and duties;

“in”, in a context referring to apparatus or alternative apparatus in land, includes a reference to apparatus or alternative apparatus under, over or upon land;

“plan” includes all designs, drawings, specifications, method statements, soil reports, programmes, calculations, risk assessments and other documents that are reasonably necessary properly and sufficiently to describe the works to be executed;

“protected person” means South East Water Limited, (company number 02679874), whose registered office is at Rocfort Road, Snodland, Kent, ME6 5AH.

for the area of the authorised development, and in relation to any apparatus, means the protected person to whom it belongs or by whom it is maintained.

### **On street apparatus**

**84.** This Part of this Schedule does not apply to apparatus in respect of which the relations between the undertaker and the protected person are regulated by the provisions of Part 3 (street works in England and Wales) of the 1991 Act.

### **Apparatus in stopped up streets**

**85.—(1)** Where any street is stopped up under article 13 (permanent stopping up of streets), any protected person whose apparatus is in the street has the same powers and rights in respect of that apparatus as it enjoyed immediately before the stopping up and the undertaker must grant to the protected person legal easements reasonably satisfactory to the protected person in respect of such apparatus and access to it, but nothing in this paragraph affects any right of the undertaker or of the protected person to require the removal of that apparatus under paragraph 88 or the power of the undertaker to carry out works under paragraph 90.

(2) Regardless of the temporary stopping up or diversion of any highway under the powers conferred by article 14 (temporary stopping up of streets), a protected person is at liberty at all times to take all necessary access across any such stopped up highway and to execute and do all such works and things in, upon or under any such highway as may be reasonably necessary or desirable to enable it to maintain any apparatus which at the time of the stopping up or diversion was in that highway.

### **Protective works to buildings**

**86.** The undertaker, in the case of the powers conferred by article 18 (protective work to buildings), must exercise those powers so as not to obstruct or render less convenient the access to any apparatus.

### **Acquisition of land**

**87.** Regardless of any provision in this Order or anything shown on the land plans, the undertaker must not acquire any apparatus otherwise than by agreement.

### **Removal of apparatus**

**88.—(1)** If, in the exercise of the powers conferred by this Order, the undertaker acquires any interest in any land in which any apparatus is placed or over which access to any apparatus is enjoyed or requires that the protected person’s apparatus is relocated or diverted, that apparatus must not be removed under this Part of this Schedule, and any right of a protected person to

maintain that apparatus in that land and to gain access to it must not be extinguished, until alternative apparatus has been constructed and is in operation, and access to it has been provided, to the reasonable satisfaction of the protected person in question in accordance with sub-paragraphs (2) to (7).

(2) If, for the purpose of executing any works in, on or under any land purchased, held, appropriated or used under this Order, the undertaker requires the removal of any apparatus placed in that land, the undertaker must give to the protected person in question 56 days' written notice of that requirement, together with a plan of the work proposed, and of the proposed position of the alternative apparatus to be provided or constructed and in that case (or if in consequence of the exercise of any of the powers conferred by this Order an undertaker reasonably needs to remove any of its apparatus) the undertaker must, subject to sub-paragraph (3), afford to the protected person the necessary facilities and rights for the construction of alternative apparatus in other land of the undertaker and subsequently for the maintenance of that apparatus.

(3) If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of the undertaker, or the undertaker is unable to afford such facilities and rights as are mentioned in sub-paragraph (2) in the land in which the alternative apparatus or part of such apparatus is to be constructed the protected person must, on receipt of a written notice to that effect from the undertaker, as soon as reasonably possible use its best endeavours to obtain the necessary facilities and rights in the land in which the alternative apparatus is to be constructed.

(4) Any alternative apparatus to be constructed in land of the undertaker under this Part of this Schedule must be constructed in such manner and in such line or situation as may be agreed between the protected person in question and the undertaker or in default of agreement settled by arbitration in accordance with article 45 (arbitration).

(5) The protected person in question must, after the alternative apparatus to be provided or constructed has been agreed or settled by arbitration in accordance with article 45 (arbitration), and after the grant to the protected person of any such facilities and rights as are referred to in sub-paragraphs (2) or (3), proceed without unnecessary delay to construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by the undertaker to be removed under the provisions of this Part of this Schedule.

(6) Regardless of anything in sub-paragraph (5), if the undertaker gives notice in writing to the protected person in question that the undertaker intends to execute any work, or part of any work in connection with the construction or removal of apparatus in any land of the undertaker, that work, instead of being executed by the protected person, must be executed by the undertaker without unnecessary delay under the superintendence, if given, and to the reasonable satisfaction of the protected person.

(7) Nothing in sub-paragraph (6) authorises the undertaker to execute the placing, installation, bedding, packing, removal, connection or disconnection of any apparatus, or execute any filling around the apparatus (where the apparatus is laid in a trench) within—

- (a) 300 millimetres of apparatus other than oil apparatus; and
- (b) 3000 millimetres of oil apparatus.

### **Facilities and rights for alternative apparatus**

**89.**—(1) Where, in accordance with the provisions of this Part of this Schedule, the undertaker affords to a protected person facilities and rights for the construction and maintenance in land of the undertaker of alternative apparatus in substitution for apparatus to be removed, those facilities and rights are to be granted upon such terms and conditions as may be agreed between the undertaker and the protected person in question or in default of agreement settled by arbitration in accordance with article 45 (arbitration).

(2) In settling those terms and conditions in respect of alternative apparatus the arbitrator must—

- (a) give effect to all reasonable requirements of the undertaker for ensuring the safety and efficient operation of the authorised development and for securing any subsequent

alterations or adaptations of the alternative apparatus which may be required to prevent interference with any proposed works of the undertaker or the traffic on the highway; and

- (b) so far as it may be reasonable and practicable to do so in the circumstances of the particular case, give effect to the terms and conditions, if any, applicable to the apparatus for which the alternative apparatus is to be substituted.

(3) If the facilities and rights to be afforded by the undertaker in respect of any alternative apparatus, and the terms and conditions subject to which those facilities and rights are to be granted, are in the opinion of the arbitrator less favourable on the whole to the protected person in question than the facilities and rights enjoyed by it in respect of the apparatus to be removed and the terms and conditions to which those facilities and rights are subject, the arbitrator must make such provision for the payment of compensation by the undertaker to that protected person as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case.

### **Retained apparatus**

**90.**—(1) Not less than 56 days before starting the execution of any works in, on or under any land purchased, held, appropriated or used under this Order that are near to, or will or may affect, any apparatus the removal of which has not been required by the undertaker under paragraph 88(2), the undertaker must submit to the protected person in question a plan of the works to be executed together with such method statement(s) as are sufficient to allow the protected person acting reasonably to assess the potential impact of the works on the performance of its functions.

(2) Those works must be executed only in accordance with the plan and method statement(s) submitted under sub-paragraph (1) and in accordance with such reasonable requirements as may be made in accordance with sub-paragraph (3) by the protected person for the alteration or otherwise for the protection of the apparatus and of its operation, or for securing access to it, and the protected person is entitled to watch and inspect the execution of those works.

(3) Any requirements made by a protected person under sub-paragraph (2) must be made within a period of 21 days beginning with the date on which a plan under sub-paragraph (1) is submitted to it.

(4) If a protected person in accordance with sub-paragraph (3) and in consequence of the works proposed by the undertaker, reasonably requires the removal of any apparatus and gives written notice to the undertaker of that requirement, paragraphs 82 to 84 and 87 to 89 apply as if the removal of the apparatus had been required by the undertaker under paragraph 88(2).

(5) Nothing in this paragraph precludes the undertaker from submitting at any time or from time to time, but in no case less than 28 days before commencing the execution of any works, a new plan instead of the plan previously submitted, and having done so the provisions of this paragraph apply to and in respect of the new plan.

(6) The undertaker is not required to comply with sub-paragraph (1) in a case of emergency but in that case must give to the protected person in question notice as soon as is reasonably practicable and a plan of those works and sufficient method statement(s) as soon as reasonably practicable subsequently and must comply with sub-paragraph (1) in so far as is reasonably practicable in the circumstances.

### **Expenses and costs**

**91.**—(1) Subject to the following provisions of this paragraph, the undertaker must repay to a protected person all expenses reasonably incurred by that protected person in, or in connection with, the inspection, removal, alteration or protection of any apparatus or the construction of any new apparatus which may be required in consequence of the execution of any such works as are referred to in paragraph 88(2), including any costs reasonably incurred in connection with the acquisition of rights under paragraph 88(3), and in watching and inspecting the execution of works under paragraph 90(2) and in making reasonable requirements under paragraph 90(3).

(2) There is to be deducted from any sum payable under sub-paragraph (1) the value of any apparatus removed under the provisions of this Part of this Schedule, that value being calculated after removal.

(3) If in accordance with the provisions of this Part of this Schedule—

- (a) apparatus of better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus of worse type, of smaller capacity or of smaller dimensions; or
- (b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which the existing apparatus was situated, and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by the undertaker or, in default of agreement, is not determined by arbitration in accordance with article 45 (arbitration) to be necessary, then, if such placing involves cost in the construction of works under this Part of this Schedule exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which apart from this sub-paragraph would be payable to the protected person in question by virtue of sub-paragraph (1) is to be reduced by the amount of that excess.

(4) For the purposes of sub-paragraph (3)—

- (a) an extension of apparatus to a length greater than the length of existing apparatus is not to be treated as a placing of apparatus of greater dimensions than those of the existing apparatus; and
- (b) where the provision of a joint in a pipe or cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole is to be treated as if it also had been agreed or had been so determined.

(5) An amount which apart from this sub-paragraph would be payable to a protected person in respect of works by virtue of sub-paragraph (1), if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on the protected person any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, is to be reduced by the amount which represents that benefit.

**92.—**(1) Subject to sub-paragraphs (2) and (3), if by reason or in consequence of the construction of the authorised development or any such works referred to in paragraphs 86, 88(2), or 90(1), or by reason of any subsidence resulting from such development or works, any damage is caused to any apparatus or alternative apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of those works) or property of a protected person, or there is any interruption in any service provided or of any access to any apparatus, or in the supply of any goods or services by any protected person or the performance of that protected person's functions, or any disruption to the normal operation of the apparatus of a protected person resulting in an increase in the costs incurred by that protected person in performing its functions or in any loss, damages or penalty, the undertaker must—

- (a) bear and pay the cost reasonably incurred by that protected person in making good such damage or restoring the supply; and
- (b) make reasonable compensation to that protected person for any other expenses, loss, damages, penalty or costs incurred by the undertaker, by reason or in consequence of any such damage, interruption or disruption.

(2) The fact that any act or thing may have been done by a protected person on behalf of the undertaker or in accordance with a plan approved by a protected person or in accordance with any requirement of a protected person or under its supervision does not, subject to sub-paragraph (3), excuse the undertaker from liability under the provisions of sub-paragraph (1).

(3) Nothing in sub-paragraph (1) imposes any liability on the undertaker with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of a protected person, its officers, servants, contractors or agents.

(4) A protected person must give the undertaker reasonable notice of any such claim or demand and no settlement or compromise is to be made without the consent of the undertaker who, if withholding such consent, has the sole conduct of any settlement or compromise or of any proceedings necessary to resist the claim or demand.

### **Co-operation**

**93.** Where in consequence of the proposed construction of any of the authorised development, the undertaker or a protected person requires the removal of apparatus under paragraph 88(2) or a protected person makes requirements for the protection or alteration of apparatus under paragraph 90, the undertaker must use best endeavours to co-ordinate the execution of the works in the interests of safety and the efficient and economic execution of the authorised development and taking into account the need to ensure the safe and efficient operation of the protected person's undertaking and each protected person must use its best endeavours to co-operate with the undertaker for that purpose.

**94.** Nothing in this Part of this Schedule affects the provisions of any enactment or agreement regulating the relations between the undertaker and a protected person in respect of any apparatus laid or erected in land belonging to the undertaker on the date on which this Order is made.

## **PART 9**

### **FOR THE PROTECTION OF HEATHROW AIRPORT LIMITED**

**95.** The following provisions of this Part of this Schedule have effect, unless otherwise agreed in writing between the undertaker and Heathrow Airport Limited.

**96.** In this Part of this Schedule—

“Heathrow Airport” means Heathrow Airport Limited (Company number: 01991017) whose registered office is at Compass Centre, Nelson Road, Hounslow, London TW6 2GW and Heathrow Airport Holdings Limited (Company number 05757208) whose registered office is at Compass Centre, Nelson Road, Hounslow, London TW6 2GW;

“the Heathrow Express railway” means the railway from Heathrow airport to the east of the tunnel portal, just west of the junction with the Railway at Airport Junction, authorised by the Heathrow Express Railway Act 1991, the Heathrow Express Railway (No. 2) Act 1991, and the Heathrow Express Railway Extension Order 2002, including the railway stations and all other works, apparatuses and conveniences constructed or provided by Heathrow Airport in connection with, or for the purposes of, that railway; and

“Heathrow Airport property” means any land belonging to Heathrow Airport and—

- (a) any works, apparatus and equipment belonging to Heathrow Airport or connected with the operational of the Heathrow Express railway; and
- (b) any easement or other property interest held or used by Heathrow Airport including those easements or property or interests for or connected with the purposes of the Heathrow Express railway or its works, apparatus or equipment.

**97.—(1)**The undertaker must not exercise the powers conferred by articles 19 (authority to survey and investigate land), 20 (compulsory acquisition of land), 22 (compulsory acquisition of rights), 24 (private rights over land), 26 (acquisition of subsoil or air-space only), 28 (rights under or over streets), 29 (temporary use of land for carrying out the authorised development), 30 (temporary use of land for maintaining the authorised development), 31 (statutory undertakers), or the powers conferred by section 11(3) (powers of entry) of the 1965 Act in respect of any Heathrow Airport property unless the exercise of such powers is with the consent of Heathrow Airport Limited.

(2) The undertaker must not in the exercise of the powers conferred by this Order prevent pedestrian or vehicular access to any Heathrow Airport property, unless preventing such access is with the consent of Heathrow Airport.

(3) The undertaker must not under the powers of this Order acquire or use, or acquire new rights over, any Heathrow Airport property except with the consent of Heathrow Airport.

(4) Where Heathrow Airport is asked to give its consent or agreement under this paragraph, such consent or agreement must not be unreasonably withheld but may be given subject to reasonable conditions which may include the requirement to give indemnities or undertake protective works necessary to protect Heathrow Airport property.

**98.** Any difference or dispute arising between the undertaker and Heathrow Airport under this Part of this Schedule must, unless otherwise agreed in writing between the undertaker and Heathrow Airport, be determined by arbitration in accordance with article 45 (arbitration).

## SCHEDULE 10

Article 43

### DOCUMENTS SUBJECT TO CERTIFICATION

The land plans (Document Reference No. 2.2, dated January 2016)—

<i>(1)</i> <i>Application Document</i>	<i>(2)</i> <i>Drawing No.</i>	<i>(3)</i> <i>Revision</i> <i>No.</i>	<i>(4)</i> <i>Document Reference</i>
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Key Plan	TR010019-2.2	5F	514451-MUH-ML-ZZ-SK-LR-301410
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 1 of 31, Theale	TR010019-2.2	5F	514451-MUH-ML-ZZ-SK-LR-301379
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 2 of 31, Calcot	TR010019-2.2	5F	514451-MUH-ML-ZZ-SK-LR-301380
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 3 of 31, Reading Motorway Service Area	TR010019-2.2	5F	514451-MUH-ML-ZZ-SK-LR-301381
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 4 of 31, Pingewood	TR010019-2.2	5F	514451-MUH-ML-ZZ-SK-LR-301382
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 5 of 31, Reading International Business Park	TR010019-2.2	5F	514451-MUH-ML-ZZ-SK-LR-301383
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land,	TR010019-2.2	5F	514451-MUH-ML-ZZ-SK-LR-301384

Regulations 5(2)(i) and 5 (2)(n), Sheet 6 of 31, Whitley			
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 7 of 31, Lower Earley	TR010019-2.2	5F	514451-MUH-ML-ZZ-SK-LR-301385
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 8 of 31, River Loddon	TR010019-2.2	5F	514451-MUH-ML-ZZ-SK-LR-301386
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 9 of 31, Winnersh	TR010019-2.2	5F	514451-MUH-ML-ZZ-SK-LR-301387
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 10 of 31, Wokingham	TR010019-2.2	5F	514451-MUH-ML-ZZ-SK-LR-301388
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 11 of 31, Bill Hill	TR010019-2.2	5F	514451-MUH-ML-ZZ-SK-LR-301389
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 12 of 31, The Straight Mile	TR010019-2.2	5F	514451-MUH-ML-ZZ-SK-LR-301390
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 13 of 31, Hammond's Wood	TR010019-2.2	5F	514451-MUH-ML-ZZ-SK-LR-301391
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 14 of 31, Beenham's Heath	TR010019-2.2	5F	514451-MUH-ML-ZZ-SK-LR-301392
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 15 of 31, Littlefield Green	TR010019-2.2	5F	514451-MUH-ML-ZZ-SK-LR-301393
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 16 of 31, Paley Street	TR010019-2.2	5F	514451-MUH-ML-ZZ-SK-LR-301394
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 17	TR010019-2.2	5F	514451-MUH-ML-ZZ-SK-LR-301395



of 31, Holyport

Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 18 of 31, Bray	TR010019-2.2	5F	514451-MUH-ML- ZZ-SK-LR-301396
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 19 of 31, Dorney Reach	TR010019-2.2	5F	514451-MUH-ML- ZZ-SK-LR-301397
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 20 of 31, Cippenham	TR010019-2.2	5F	514451-MUH-ML- ZZ-SK-LR-301398
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 21 of 31, Slough South	TR010019-2.2	5F	514451-MUH-ML- ZZ-SK-LR-301399
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 22 of 31, Chalvey	TR010019-2.2	5F	514451-MUH-ML- ZZ-SK-LR-301400
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 23 of 31, Myrke	TR010019-2.2	5F	514451-MUH-ML- ZZ-SK-LR-301401
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 24 of 31, Datchet	TR010019-2.2	5F	514451-MUH-ML- ZZ-SK-LR-301402
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 25 of 31, Brands Hill	TR010019-2.2	5F	514451-MUH-ML- ZZ-SK-LR-301403
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 26 of 31, Sutton	TR010019-2.2	5F	514451-MUH-ML- ZZ-SK-LR-301404
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 27 of 31, M4/M25	TR010019-2.2	5F	514451-MUH-ML- ZZ-SK-LR-301405
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 28 of 31, West Drayton	TR010019-2.2	5F	514451-MUH-ML- ZZ-SK-LR-301406

Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 29 of 31, Harlington	TR010019-2.2	5F	514451-MUH-ML- ZZ-SK-LR-301407
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 30 of 31, Cranford	TR010019-2.2	5F	514451-MUH-ML- ZZ-SK-LR-301408
Volume 2.0: plans, drawing and sections - 2.2 Land Plans including Crown Land, Regulations 5(2)(i) and 5 (2)(n), Sheet 31 of 31, Heston	TR010019-2.2	5F	514451-MUH-ML- ZZ-SK-LR-301409

the works plans (Document Reference No. 2.3, dated January 2016)—

<i>(1)</i> <i>Application Document</i>	<i>(2)</i> <i>Drawing No.</i>	<i>(3)</i> <i>Revision No.</i>	<i>(4)</i> <i>Document Reference</i>
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Key Plan	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301287
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 1 of 31, Theale	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301288
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 2 of 31, Calcot	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301289
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 3 of 31, Reading Motorway Service Area	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301290
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 4 of 31, Pingewood	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301291
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 5 of 31, Reading International Business Park	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301292
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 6 of 31, Whitley	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301293
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 7 of 31, Lower Earley	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301294
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 8 of 31, River Loddon	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301295
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 9 of 31, Winnersh	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301296

Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 10 of 31, Wokingham	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301297
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 11 of 31, Bill Hill	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301298
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 12 of 31, The Straight Mile	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301299
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 13 of 31, Hammond's Wood	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301300
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 14 of 31, Beenham's Heath	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301301
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 15 of 31, Littlefield Green	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301302
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 16 of 31, Paley Street	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301303
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 17 of 31, Holyport	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301304
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 18 of 31, Bray	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301305
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 19 of 31, Dorney Reach	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301306
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 20 of 31, Cippenham	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301307
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 21 of 31, Slough South	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301308
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 22 of 31, Chalvey	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301309
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 23 of 31, Myrke	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301310
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 24 of 31,	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301311

Datchet Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 25 of 31, Brands Hill	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301312
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 26 of 31, Sutton	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301313
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 27 of 31, M4/M25	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301314
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 28 of 31, West Drayton	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301315
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 29 of 31, Harlington	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301316
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 30 of 31, Cranford	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301317
Volume 2.0: plans, drawings and sections - 2.3 Works Plans, Sheet 31 of 31, Heston	TR010019-2.3	3F	514451-MUH-ML- ZZ-DR-WP-301318

## SCHEDULE 11

Article 47

### PROCEDURE FOR DISCHARGE OF CERTAIN APPROVALS

#### **Applications made for certain approvals**

1.—(1) Where an application has been made to a discharging authority for any consent, agreement or approval required or contemplated by any of the provisions of the Order the discharging authority must give notice to the undertaker of their decision on the application before the end of the decision period.

(2) For the purposes of sub-paragraph (1), the decision period is—

- (a) where no further information is requested under paragraph 2, 5 weeks from the day immediately following that on which the application is received by the authority;
- (b) where further information is requested under paragraph 2, 5 weeks from the day immediately following that on which further information has been supplied by the undertaker under paragraph 2; or
- (c) such longer period as may be agreed by the undertaker and the discharging authority in writing before the end of the period in sub-paragraph (a) or (b).

#### **Further information**

2.—(1) In relation to any application to which this Schedule applies, the discharging authority has the right to request such further information from the undertaker as is necessary to enable it to consider the application.

(2) If the discharging authority considers such further information to be necessary it must, within 7 business days of receipt of the application, notify the undertaker in writing specifying the further information required.

(3) If the discharging authority does not give such notification as specified in sub-paragraph (2) it is to be deemed to have sufficient information to consider the application and is not thereafter entitled to request further information without the prior agreement of the undertaker.

## **Fees**

**3.—**(1) Where an application is made to the discharging authority for agreement or approval in respect of a requirement, a fee of £97.00 is to be paid to that authority.

(2) Any fee paid under this Schedule must be refunded to the undertaker within 8 weeks of—

- (a) the application being rejected as invalidly made; or
- (b) the discharging authority failing to determine the application within the decision period as determined under paragraph 1,

unless within that period the undertaker agrees, in writing, that the fee is to be retained by the discharging authority and credited in respect of a future application.

## **Appeals**

**4.—**(1) The undertaker may appeal in the event that—

- (a) the discharging authority refuses an application for any consent, agreement or approval required or contemplated by any of the provisions of the Order or grants it subject to conditions;
- (b) the discharging authority does not give notice of its decision to the undertaker within the decision period as determined in paragraph 1;
- (c) on receipt of a request for further information pursuant to paragraph 2 the undertaker considers that either the whole or part of the specified information requested by the discharging authority is not necessary for consideration of the application; or
- (d) on receipt of any further information requested, the discharging authority notifies the undertaker that the information provided is inadequate and requests additional information which the undertaker considers is not necessary for consideration of the application.

(2) The appeal process is to be as follows—

- (a) any appeal by the undertaker must be made within forty two days of the date of the notice of the decision or determination, or (where no determination has been made) expiry of the time period set out, giving rise to the appeal as referred to in paragraph (1);
- (b) the undertaker must submit the appeal documentation to the Secretary of State, a copy of the application submitted to the discharging authority and any supporting documentation which the undertaker may wish to provide (“the appeal documentation”);
- (c) the undertaker must on the same day provide copies of the appeal documentation to the discharging authority;
- (d) as soon as is practicable after receiving the appeal documentation, the Secretary of State must appoint a person to determine the appeal (“the appointed person”) and must notify the appeal parties of the identity of the appointed person and the address to which all correspondence for that person’s attention should be sent;
- (e) the discharging authority must submit written representations to the appointed person in respect of the appeal within 10 business days of the date on which the appeal parties are notified of the appointment of a person under paragraph (d) and must ensure that copies of their written representations are sent to each other and to the undertaker on the day on which they are submitted to the appointed person;

(f) the appeal parties must make any counter-submissions to the appointed person within 10 business days of receipt of written representations pursuant to sub-paragraph (e) above.

(3) The appointed person must make his decision and notify it to the appeal parties, with reasons, as soon as reasonably practicable.

(4) If the appointed person considers that further information is necessary to enable him to consider the appeal he must, as soon as practicable, notify the appeal parties in writing specifying the further information required, the appeal party from whom the information is sought, and the date by which the information is to be submitted.

(5) Any further information required pursuant to sub-paragraph (4) is to be provided by the party from whom the information is sought to the appointed person and to other appeal parties by the date specified by the appointed person. Any written representations concerning matters contained in the further information must be submitted to the appointed person, and made available to all appeal parties within 10 business days of that date.

(6) On an appeal under this paragraph, the appointed person may—

(a) allow or dismiss the appeal; or

(b) reverse or vary any part of the decision of the discharging authority (whether the appeal relates to that part of it or not),

and may deal with the application as if it had been made to the appointed person in the first instance.

(7) The appointed person may proceed to a decision on an appeal taking into account only such written representations as have been sent within the time limits prescribed, or set by the appointed person, under this paragraph.

(8) The appointed person may proceed to a decision even though no written representations have been made within those time limits, if it appears to the appointed person that there is sufficient material to enable a decision to be made on the merits of the case.

(9) The decision of the appointed person on an appeal is to be final and binding on the parties, and a court may entertain proceedings for questioning the decision only if the proceedings are brought by a claim for judicial review.

(10) If an approval is given by the appointed person pursuant to this Schedule, it will be deemed to be an approval for the purpose of any consent, agreement or approval required under the Order or for the purpose of Schedule 2 (requirements) as if it had been given by the discharging authority. The discharging authority may confirm any determination given by the appointed person in identical form in writing but a failure to give such confirmation (or a failure to give it in identical form) is not to be taken to affect or invalidate the effect of the appointed person's determination.

(11) Save where a direction is given pursuant to sub-paragraph (12) requiring the costs of the appointed person to be paid by the discharging authority, the reasonable costs of the appointed person will be met by the undertaker.

(12) On application by the discharging authority or the undertaker, the appointed person may give directions as to the costs of the appeal parties and as to the parties by whom the costs of the appeal are to be paid. In considering whether to make any such direction and the terms on which it is to be made, the appointed person must have regard to Communities and Local Government Circular 03/2009 or any circular or guidance which may from time to time replace it.

## **Interpretation of Schedule 11**

5. In this Schedule—

“the appeal parties” means the discharging authority, and the undertaker;

“business day” means a day other than Saturday or Sunday which is not Christmas Day, Good Friday or a bank holiday under section 1 (bank holidays) of the Banking and Financial Dealings Act 1971(a); and

“discharging authority” has the same meaning as under article 47 (procedure in relation to certain approvals etc.) of this Order.

## SCHEDULE 12

Requirement 6

### ENGINEERING DRAWINGS, SECTIONS AND OTHER INFORMATION

<i>(1)</i> <i>Application Document</i>	<i>(2)</i> <i>Drawing No.</i>	<i>(3)</i> <i>Revision</i>	<i>(4)</i> <i>Drawing Description</i>
Volume 2.0: plans, drawings and sections, 2.5 Engineering sections: M4 mainline and Sliproads	TR010019 – 2.5	2F	Engineering Sections, Regulation 5(2)(o) & (p) & 6(2), Sheet 1 of 7
	TR010019 – 2.5	2F	Engineering Sections, Regulation 5(2)(o) & (p) & 6(2), Sheet 2 of 7
	TR010019 – 2.5	2F	Engineering Sections, Regulation 5(2)(o) & (p) & 6(2), Sheet 3 of 7
	TR010019 – 2.5	2F	Engineering Sections, Regulation 5(2)(o) & (p) & 6(2), Sheet 4 of 7
	TR010019 – 2.5	2F	Engineering Sections, Regulation 5(2)(o) & (p) & 6(2), Sheet 5 of 7
	TR010019 – 2.5	2F	Engineering Sections, Regulation 5(2)(o) & (p) & 6(2), Sheet 6 of 7
	TR010019 – 2.5	2F	Engineering Sections, Regulation 5(2)(o) & (p) & 6(2), Sheet 7 of 7
Volume 2.0: plans, drawings and sections, 2.6 Side Road Plan and Profile	TR010019 – 2.6	4F	Side Road Plan & Profile, Regulations 5(2)(o), 5(2)(p) & 6(2) Key Plan
	TR010019 – 2.6	4F	Side Road Plan & Profile, Regulations 5(2)(o), 5(2)(p) & 6(2)

(a) 1971 c. 80.

TR010019 – 2.6	4F	Side Road Plan & Profile, Regulations 5(2)(o), 5(2)(p) & 6(2) Sheet 2 of 13
TR010019 – 2.6	4F	Side Road Plan & Profile, Regulations 5(2)(o), 5(2)(p) & 6(2) Sheet 3 of 13
TR010019 – 2.6	4F	Side Road Plan & Profile, Regulations 5(2)(o), 5(2)(p) & 6(2) Sheet 4 of 13
TR010019 – 2.6	4F	Side Road Plan & Profile, Regulations 5(2)(o), 5(2)(p) & 6(2) Sheet 5 of 13
TR010019 – 2.6	4F	Side Road Plan & Profile, Regulations 5(2)(o), 5(2)(p) & 6(2) Sheet 6 of 13
TR010019 – 2.6	4F	Side Road Plan & Profile, Regulations 5(2)(o), 5(2)(p) & 6(2) Sheet 7 of 13
TR010019 – 2.6	4F	Side Road Plan & Profile, Regulations 5(2)(o), 5(2)(p) & 6(2) Sheet 8 of 13
TR010019 – 2.6	4F	Side Road Plan & Profile, Regulations 5(2)(o), 5(2)(p) & 6(2) Sheet 9 of 13
TR010019 – 2.6	4F	Side Road Plan & Profile, Regulations 5(2)(o), 5(2)(p) & 6(2) Sheet 10 of 13
TR010019 – 2.6	4F	Side Road Plan & Profile, Regulations 5(2)(o), 5(2)(p) & 6(2) Sheet 11 of 13
TR010019 – 2.6	4F	Side Road Plan & Profile, Regulations 5(2)(o), 5(2)(p) & 6(2) Sheet 12 of 13



	TR010019 – 2.6	4F	Side Road Plan & Profile, Regulations 5(2)(o), 5(2)(p) & 6(2) Sheet 13 of 13
Volume 2.0: plans, drawings and sections, 2.7 Earthworks Standard Details	TR010019 – 2.7	2F	Earthworks Standard Details, Regulation 5(2)(o) & 5(2)(p) & 6(2), Sheet 1 to 2
	TR010019 – 2.7	2F	Earthworks Standard Details, Regulation 5(2)(o) & 5(2)(p) & 6(2), Sheet 2 to 2
Volume 2.0: plans, drawings and sections, 2.8 Gantry General Arrangements	TR010019 – 2.8	3F	Generic Gantry Details, Regulation 5(2)(o) & 5(2)(p) & 6(2), Gantry Type 1, Superspan Portal Gantry
	TR010019 – 2.8	3F	Generic Gantry Details, Regulation 5(2)(o) & 5(2)(p) & 6(2), Gantry Type 2, Single Span Portal Gantry
	TR010019 – 2.8	3F	Generic Gantry Details, Regulation 5(2)(o) & 5(2)(p) & 6(2), Gantry Type 3, Superspan Cantilever Gantry
	TR010019 – 2.8	3F	Generic Gantry Details, Regulation 5(2)(o) & 5(2)(p) & 6(2), Gantry Type 4, Sign Only Cantilever Gantry
	TR010019 – 2.8	3F	Generic Gantry Details, Regulation 5(2)(o) & 5(2)(p) & 6(2), Gantry Type 5A, MS4 Signal Gantry (Option A)
	TR010019 – 2.8	3F	Generic Gantry Details, Regulation 5(2)(o) & 5(2)(p) & 6(2), Gantry Type 5B, MS4 Signal Gantry (Option B)
	TR010019 – 2.8	3F	Generic Gantry Details, Regulation 5(2)(o) & 5(2)(p) & 6(2), Gantry Type 6, MS3 Signal

## Gantry

Volume 7 Other documents 7.4 Engineering and Design Report Annexes Annex A1 Environmental Masterplan	514451-MUH-ML-ZZ-DR-EM-300734	7F	Environmental Masterplan, Key Plan
	514451-MUH-ML-ZZ-DR-EM-300735	11F	Environmental Masterplan, Sheet 1 of 31, Theale
	514451-MUH-ML-ZZ-DR-EM-300736	11F	Environmental Masterplan, Sheet 2 of 31, Calcot
	514451-MUH-ML-ZZ-DR-EM-300737	11F	Environmental Masterplan, Sheet 3 of 31, Reading Motorway Service Area
	514451-MUH-ML-ZZ-DR-EM-300738	11F	Environmental Masterplan, Sheet 4 of 31, Pingewood
	514451-MUH-ML-ZZ-DR-EM-300739	11F	Environmental Masterplan, Sheet 5 of 31, Reading International Business Park
	514451-MUH-ML-ZZ-DR-EM-300740	11F	Environmental Masterplan, Sheet 6 of 31, Whitley
	514451-MUH-ML-ZZ-DR-EM-300741	11F	Environmental Masterplan, Sheet 7 of 31, Lower Earley
	514451-MUH-ML-ZZ-DR-EM-300742	11F	Environmental Masterplan, Sheet 8 of 31, River Loddon
	514451-MUH-ML-ZZ-DR-EM-300743	11F	Environmental Masterplan, Sheet 9 of 31, Winnersh
	514451-MUH-ML-ZZ-DR-EM-300744	11F	Environmental Masterplan, Sheet 10 of 31, Wokingham
	514451-MUH-ML-ZZ-DR-EM-300745	11F	Environmental Masterplan, Sheet 11 of 31, Bill Hill
	514451-MUH-ML-	11F	Environmental

ZZ-DR-EM-300746		Masterplan, Sheet 12 of 31, The Straight Mile
514451-MUH-ML-ZZ-DR-EM-300747	11F	Environmental Masterplan, Sheet 13 of 31, Hammond's Wood
514451-MUH-ML-ZZ-DR-EM-300748	11F	Environmental Masterplan, Sheet 14 of 31, Beenham's Heath
514451-MUH-ML-ZZ-DR-EM-300749	11F	Environmental Masterplan, Sheet 15 of 31, Littlefield Green
514451-MUH-ML-ZZ-DR-EM-300750	11F	Environmental Masterplan, Sheet 16 of 31, Paley Street
514451-MUH-ML-ZZ-DR-EM-300751	11F	Environmental Masterplan, Sheet 17 of 31, Holyport
514451-MUH-ML-ZZ-DR-EM-300752	11F	Environmental Masterplan, Sheet 18 of 31, Bray
514451-MUH-ML-ZZ-DR-EM-300753	11F	Environmental Masterplan, Sheet 19 of 31, Dorney Reach
514451-MUH-ML-ZZ-DR-EM-300754	11F	Environmental Masterplan, Sheet 20 of 31, Cippenham
514451-MUH-ML-ZZ-DR-EM-300755	11F	Environmental Masterplan, Sheet 21 of 31, Slough South
514451-MUH-ML-ZZ-DR-EM-300756	11F	Environmental Masterplan, Sheet 22 of 31, Chalvey
514451-MUH-ML-ZZ-DR-EM-300757	11F	Environmental Masterplan, Sheet 23 of 31, Myrke
514451-MUH-ML-ZZ-DR-EM-300758	11F	Environmental Masterplan, Sheet 24 of 31, Datchet
514451-MUH-ML-ZZ-DR-EM-300759	11F	Environmental Masterplan, Sheet 25 of 31, Brands Hill
514451-MUH-ML-	11F	Environmental

	ZZ-DR-EM-300760		Masterplan, Sheet 26 of 31, Sutton
	514451-MUH-ML-ZZ-DR-EM-300761	11F	Environmental Masterplan, Sheet 27 of 31, M4/M25
	514451-MUH-ML-ZZ-DR-EM-300762	11F	Environmental Masterplan, Sheet 28 of 31, West Drayton
	514451-MUH-ML-ZZ-DR-EM-300763	11F	Environmental Masterplan, Sheet 29 of 31, Harlington
	514451-MUH-ML-ZZ-DR-EM-300764	11F	Environmental Masterplan, Sheet 30 of 31, Cranford
	514451-MUH-ML-ZZ-DR-EM-300765	11F	Environmental Masterplan, Sheet 31 of 31, Heston
Volume 7 Other documents 7.4 Engineering and Design Report Annexes Annex A2 Vegetation Clearance	514451-MUH-ML-ZZ-DR-SC-301224	4F	Vegetation Clearance, Key Plan
	514451-MUH-ML-ZZ-DR-SC-301225	6F	Vegetation Clearance, Sheet 1 of 31, Theale
	514451-MUH-ML-ZZ-DR-SC-301226	6F	Vegetation Clearance, Sheet 2 of 31, Calcot
	514451-MUH-ML-ZZ-DR-SC-301227	6F	Vegetation Clearance, Sheet 3 of 31, Reading Motorway Service Area
	514451-MUH-ML-ZZ-DR-SC-301228	6F	Vegetation Clearance, Sheet 4 of 31, Pingewood
	514451-MUH-ML-ZZ-DR-SC-301229	6F	Vegetation Clearance, Sheet 5 of 31, Reading International Business Park
	514451-MUH-ML-ZZ-DR-SC-301230	6F	Vegetation Clearance, Sheet 6 of 31, Whitley
	514451-MUH-ML-ZZ-DR-SC-301231	6F	Vegetation Clearance, Sheet 7 of 31, Lower Earley

514451-MUH-ML-ZZ-DR-SC-301232	6F	Vegetation Clearance, Sheet 8 of 31, River Loddon
514451-MUH-ML-ZZ-DR-SC-301233	6F	Vegetation Clearance, Sheet 9 of 31, Winnersh
514451-MUH-ML-ZZ-DR-SC-301234	6F	Vegetation Clearance, Sheet 10 of 31, Wokingham
514451-MUH-ML-ZZ-DR-SC-301235	6F	Vegetation Clearance, Sheet 11 of 31, Bill Hill
514451-MUH-ML-ZZ-DR-SC-301236	6F	Vegetation Clearance, Sheet 12 of 31, The Straight Mile
514451-MUH-ML-ZZ-DR-SC-301237	6F	Vegetation Clearance, Sheet 13 of 31, Hammond's Wood
514451-MUH-ML-ZZ-DR-SC-301238	6F	Vegetation Clearance, Sheet 14 of 31, Beenham's Heath
514451-MUH-ML-ZZ-DR-SC-301239	6F	Vegetation Clearance, Sheet 15 of 31, Littlefield Green
514451-MUH-ML-ZZ-DR-SC-301240	6F	Vegetation Clearance, Sheet 16 of 31, Paley Street
514451-MUH-ML-ZZ-DR-SC-301241	6F	Vegetation Clearance, Sheet 17 of 31, Holyport
514451-MUH-ML-ZZ-DR-SC-301242	6F	Vegetation Clearance, Sheet 18 of 31, Bray
514451-MUH-ML-ZZ-DR-SC-301243	6F	Vegetation Clearance, Sheet 19 of 31, Dorney Reach
514451-MUH-ML-ZZ-DR-SC-301244	6F	Vegetation Clearance, Sheet 20 of 31, Cippenham
514451-MUH-ML-ZZ-DR-SC-301245	6F	Vegetation Clearance, Sheet 21 of 31, Slough South
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#### **EXPLANATORY NOTE**

*(This note is not part of the Order)*

This Order authorises the undertaker to make alterations to and to improve a carriageway between Junctions 3 to 12 of the M4 and carry out all associated works.

The Order permits the undertaker to acquire, compulsorily or by agreement, land and rights in land and to use land for this purpose.

The Order also makes provision in connection with the maintenance of the authorised development.

A copy of the plans, engineering drawings and sections and the book of reference and environmental statement mentioned in this Order and certified in accordance with article 43 of this Order (certification of plans, etc.) may be inspected free of charge during working hours at Highways England, [\*\*\*].

Highways England's Manual of Contract Documents and Design Manual for Roads and Bridges are available at [www.dft.gov.uk/ha/standards](http://www.dft.gov.uk/ha/standards).

[Highways England (registered office address Highways England Company Limited, Bridge House, 1 Walnut Tree Close, Guildford GU1 4LZ).]