

## M25 junction 28 improvement scheme

TR010029

### 9.60 Applicant's response to action points from Issue Specific Hearing 1

Rules 8(1)(k)

Planning Act 2008

Infrastructure Planning (Examination Procedure) Rules 2010

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# Infrastructure Planning

## Planning Act 2008

### The Infrastructure Planning (Examination Procedure) Rules 2010

### M25 junction 28 scheme

### Development Consent Order 202[x ]

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## 1. Purpose of the report

- 1.1.1 The table in Section 2 provides the response from Highways England to the action points from the Issue Specific Hearing 1 (ISH1) on Environmental Matters held from 3 March to 4 March 2021.

## 2. Applicant's response to action points from Issue Specific Hearing 1 held 3 to 4 March 2021

Action	Description	Highway England response
1	Applicant to issue a clarification on the Transport Assessment – Baseline Data chapter – to confirm that the delays recorded are at the junction (roundabout) therefore different the journey time (through time).	<p>The base year journey times through junction 28 presented in Table 4-3 of the Transport Assessment Report (APP-098) relate to the journey time routes assumed at the time the model validation was undertaken (as shown in Figures 3-8 and 3-9 of the same report). These are for the peak one-hour AM and PM periods.</p> <p>Tables 5-4 and 5-7 of the Transport Assessment Report (APP-098) relate to the forecast scenarios which assumed longer journey time routes as shown in Figures 8.4, 8.5 and 8.6 in Appendix B of the same report, (including base year journey times for comparison) that are longer to those shown in Figures 3-8 and 3-9 and are the average journey times over the peak three-hour AM and PM periods. Consequently, the base year journey times presented in Tables 5-4 and 5-7 of the Transport Assessment Report (APP-098) are different to those present in Table 4-3 of the same report as the comparisons were for different purposes and cannot be directly compared.</p> <p>Please note that Tables 5-4 and 5-7 of the Transport Assessment Report (APP-098) are superseded by Tables 2-1 and 2-4 in the Transport Assessment Supplementary Information Report (TASIR) (PDB-003), although the base year journey times are the same.</p>
2	Applicant and TfL to issue further assurance to the IPs regarding the intergreen signalling at Brook Street and to	Highways England and TfL have agreed, following a meeting on 8 March 2021, to address the matter of intergreen signalling at Brook

Action	Description	Highway England response
	<p>explore if this can it be secured in the DCO or a separate legal agreement? Applicant is going to look discussion with TfL to agree a provision.</p>	<p>Street as part of a separate legal agreement. The parties will update the ExA when this agreement has been completed.</p>
3	<p>Outline Traffic Management Plan to be submitted into the Examination.</p>	<p>An outline Traffic Management Plan has been submitted alongside this document at Deadline 4 (TR010029/EXAM/9.52).</p>
4	<p>Applicant to clarify anticipated timeframe for approval of proposals to integrate safe cycle and walkway routes which are currently being pursued separately to the Proposed Development.</p>	<p>Designated funds are funds made available by Highways England to address a range of issues beyond the traditional focus of road investment. They have their own defined objectives and criteria to ensure schemes are of high quality and achieve value for money.</p> <p>Designated funding projects progress through the following five stages</p> <ul style="list-style-type: none"> <li>• Stage 1 – Project Concept</li> <li>• Stage 2 – Feasibility</li> <li>• Stage 3 – Detailed Design</li> <li>• Stage 4 – Implementation</li> <li>• Stage 5 – Closeout</li> </ul> <p>Highways England is currently at Stage 3 in terms of finalising the detailed design for the designated funds scheme relating to junction 28 and this is due to be completed by the end of March 2021. This will include detail of the preferred option, cost and programme estimates. The outputs from this will be presented to the Highways England's Designated Fund Committee for an investment decision and approval to subsequently proceed to Stage 4.</p>

Action	Description	Highway England response
		Highways England anticipates a decision as to the provision of funding will be made by Highways England prior to Deadline 9 (30 June 2021).
5	Applicant to provide drawings at a larger scale (minimum 1:1000) of the area around Grove Farm dwellings.	These plans have been submitted alongside this document at Deadline 4 (TR010029/EXAM/9.61).
6	Applicant to submit an updated SoCG between themselves and London Borough of Havering regarding baseline data etc.	An updated SoCG (TR010029/EXAM/9.8 (1)) between Highways England and London Borough of Havering has been submitted at Deadline 4.
7	Applicant to provide confirmation of a programme of trial trenching works and to update the Archaeological Management Plan accordingly or in due course.	<p>A meeting was held on 10 March 2021 with the Greater London Archaeology Advisory Services (GLAAS) and the London Borough of Havering (LBH) where the archaeological evaluation to advance the DCO application was discussed. Highways England provided GLAAS with an indicative programme to undertake archaeological trenching in order to establish the potential for nationally significant archaeological remains on the site. The targeted initial trenching works as agreed with GLAAS will take place in May 2021 subject to landowner permission and above ground site clearance being undertaken. A report following this initial trenching work will be provided to GLAAS shortly after the archaeological trenching works have been done.</p> <p>The steps discussed with GLAAS are recorded in the updated Statement of Common Ground with the LBH submitted at Deadline 4 (TR010029/EXAM/9.8).</p>

Action	Description	Highway England response
		Highways England is consulting GLAAS on the content of the Outline Archaeological Management Plan (OAMP) and intends to submit an updated version at Deadline 5 or another future deadline.
<b>Day 2 Thursday 4 March 2021</b>		
8	Applicant to submit its publication entitled 'The road to good design 2018' into the Examination and explain how its principles will be incorporated and the document is to be secured in the dDCO.	<p>The 'Road to Good Design' is Highways England's guide on what design principles need to be taken into consideration when promoting a highway infrastructure project.</p> <p>To provide an overview of how Highways England has incorporated the principles of The road to good design principles in this Scheme, Highways England has prepared a summary table capturing the key considerations and measures taken during the development of the preliminary design. This is presented in the Road to Good Design Summary Table (TR010029/EXAM/9.62) submitted at Deadline 4.</p> <p>As the principles in "The road to good design" have been embedded into the preliminary scheme design, the subject of the DCO application, there is no need for it to be secured in the draft DCO. Adherence to the principles in "The road to good design" is one of the factors taken into account by Highways England as part of its internal formal process under which permission is given for schemes to progress to the making of a DCO application.</p>
9	Applicant to submit the revised calculations regarding the Proposed Development's emissions contributions to both the third and fourth Carbon Budgets.	Highways England has revised the calculations regarding the Scheme's emissions contributions to both the third and fourth carbon budgets and the assessment is provided in the Carbon budget assessment document submitted at Deadline 4 (TR010029/EXAM/9.63).



Action	Description	Highway England response
10	Applicant to submit clarification on number of parcels of Ancient Woodlands that would be indirectly affected, 17 or 18?	<p>The Multi-Agency Geographic Information for the Countryside (MAGIC) database includes ancient woodland listed on the ancient woodland Inventory. A search for ancient woodlands within the study area (2 km from the DCO boundary) lists 18 ancient woodland parcels which as described in paragraph 9.7.42 in Environmental Statement (ES) Chapter 9 Landscape and visual chapter (APP-031). However, two of these parcels form one ancient woodland known as Shoulder of Mutton Wood.</p> <p>Shoulder of Mutton Wood is split into two parcels by a road, Kirby Close. As these two parcels form one ancient woodland, they have been described in the Biodiversity chapter of the (ES) (Chapter 7, APP-029) as one woodland, making the total number of ancient woodlands as 17.</p> <p>Potential impacts to ancient woodland are described in Chapter 7 of the Environmental Statement (APP-029), section 7.8 (paragraphs 7.8.3 (Zone of Influence)), 7.8.26-7.8.27 (construction phase) and 7.8.29 (operational phase)). During construction, potential indirect effects have been identified to only one of the 17 ancient woodlands in the study area (Lower Vicarage Wood).</p> <p>Table 9.1 in the Outline Construction Environmental Management Plan (OCEMP) (REP3A-010) states that there are 19 ancient woodlands however, this is incorrect and will be amended to 17 in the next update of the OCEMP.</p>
11	Applicant is to provide clarification on the terms 'mature woodland' and whether both Alder Wood and The Grove are classified as such.	Ancient woodland is defined as woodland that has been wooded continuously since 1600AD or earlier (including over planted areas) (see Natural England and Forestry Commission standing advice

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		<p><a href="https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences">https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences</a>). Ancient woodland may or may not be listed on the ancient woodland inventory and does not necessarily contain mature trees.</p> <p>Detailed vegetation surveys were carried out of both Alder Wood and The Grove woodlands. The results of the surveys are presented in the Phase 1 habitat survey (APP-059).</p> <p>Whilst some ancient woodland indicator species are present in these woodlands (three were present in The Grove and four in Alder Wood), based on the structure and composition of these woodlands, they are not considered to be ancient woodlands as agreed with Natural England. The draft Statement of Common Ground (SoCG) between Highways England and Natural England (REP1-011) records Natural England's agreement with the methodology of surveys and assessment (section 2.1), including those for ancient woodland, as detailed in Chapter 7 of the ES (APP-029).</p> <p>Mature woodland is a less well-defined term and relates to the broad age of the tree stock in a woodland area (i.e. young, semi-mature, mature, over-mature) rather than the period of time the area has been wooded. The use of the word 'mature' to describe woodlands in Chapter 9 (Landscape and visual, APP-031) is not intended as a formal habitat classification or category of woodland. The word mature is used as a description only to state the woodland typically contains some mature trees, i.e. is not new/young woodland. The mature woodlands referred to in Chapter 9 are not ancient woodland.</p>

Action	Description	Highway England response
		Both Alder Wood and The Grove are mixed age woodlands which contain some mature tree stock.
12	Applicant to insert into the outline Arboricultural Method Statement how Ancient Woodlands are to be managed during construction.	<p>There are no ancient woodlands within, or directly adjacent to, the DCO boundary. The closest ancient woodlands to the Order Limits are (see Figure 2.1, APP-039 for drawing showing locations):</p> <ul style="list-style-type: none"> <li>• Lower Vicarage Wood located approximately 40 m from the DCO boundary, north of the eastbound carriageway of the A12, east of junction 28. This woodland is separated from the A12 by a highways boundary fence and the Ingrebourne River. This woodland is outside the Order Limits and there will be no access to this woodland during construction.</li> <li>• Jackson's Wood, Folkes Lane Woodland, and Foxburrow Wood/ Coombegreen Wood located between 10 m and 30 m of the DCO boundary which runs along the M25 south of junction 28. Along this section of the Scheme, the proposed works include replacement of signage on existing gantries only. These woodlands are away from the main works associated with the construction of the loop road and are separated from the M25 corridor by existing highways boundary fences.</li> </ul> <p>As defined within the BS5837:2012 'Trees in relation to design, demolition and construction – recommendations' (paragraph 3.2 page 3) the final Arboricultural Method Statement (AMS) is required to cover the 'methodology for the implementation of any aspect of development that is within the root protection area or has the potential to result in loss of or damage to a tree to be retained'.</p>

Action	Description	Highway England response
		<p>As there is no ancient woodland within the Order Limits, the Scheme will have no direct impact to the ancient woodlands within 2km from the Scheme. Therefore, there is no need to cover this in the Outline AMS. No construction works will be taking place within or close to the root protection areas of any trees which form part of an ancient woodland. Therefore, measures to protect ancient woodland during construction (such as pollution prevention) will be included in the final CEMP, not the AMS. The AMS will include a heading for ancient woodland which will refer to the final CEMP to provide assurance to the ExA.</p> <p>Protection of sensitive areas, such as ancient woodland, is covered in section 9 of the Outline CEMP (REP3A-010). Section 9.2 outlines that protection measures are required in relation to sensitive areas. These will be developed further for the final CEMP. The text in Table 9.1 relating to ancient woodlands incorrectly states the number of ancient woodlands and location of woodlands adjacent to the Scheme. This will be amended in the next update to the Outline CEMP.</p>
13	Applicant to respond to the ExA's request to provide the SoS with information on the maximum number of trees that would need to be removed in the outline Arboricultural Method Statement, with final numbers identified at the detailed design stage.	<p>The Outline AMS will be updated and submitted at Deadline 5 to include a section indicating the number of trees likely to be removed as part of the Scheme and the number of trees likely to be re-planted.</p> <p>The final AMS will contain a total figure for tree loss before this document is submitted to the SoS for approval under Requirement 11 of the DCO.</p>

Action	Description	Highway England response
14	Confirmation in the outline Arboricultural Method Statement that replacement trees which are mitigating the loss of Veteran Trees that are to be removed will be placed/planted within the Order limits.	<p>The exact planting locations of the new trees to compensate for the loss of the 2 veteran trees (one oak and one ash) will be determined during detailed design. These will be planted within the Order limits.</p> <p>As set out in paragraph 7.9.24 of Chapter 7 of the ES (APP-029) and paragraph 5.3.1 of the Arboricultural Impact Assessment (APP-063), for each veteran tree lost, eight trees of the same native species will be planted with space around them to develop into an open crown. Two veteran trees will be lost, one oak and one ash, and 16 replacement trees will be planted. They will include eight oak and, as it is not recommended to plant ash due to ash dieback, eight hornbeam trees. Hornbeam has been selected to replace ash as there are older specimens of this species at the edge of Alder Wood and it is currently not under threat of disease or damage from pests.</p> <p>This information will also be included in the updated Outline AMS which will be submitted at Deadline 5.</p>
15	The Applicant to submit a revised version of the Engineering Drawings [APP-011] to include Grove Farm; specifically, sections D-D and an extended version of section EE. Both should show the location of the main dwelling on the Grove Farm site in section.	Highways England has provided these drawings within a document submitted at Deadline 4 (TR010029/EXAM/9.65).
16	Comment on a requirement being placed in the dDCO for a site-specific plan for Grove Farm.	Highways England's position is that a Requirement in respect of Grove Farm is not required or appropriate. As regards provision of a noise barrier, the noise assessment findings reported that for the operational stage, the change in noise levels are expected to be negligible at Grove Farm, and as such the provision of a permanent noise barrier is not required. As regards a broader requirement

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		<p>related to design this would not be appropriate due to the potential for unworkable knock-on effects for the rest of the Scheme.</p> <p>With regard to landscaping, proposed planting of woodland and grassland is provided for in the Preliminary Environmental Design (Figure 2.2, APP-039), with a proposed long-term management programme set out in the Outline LEMP, In particular, with regards to Grove Farm, the following management areas W7, W6, G8, G9 and W13 apply. The provision of this landscaping, along with all other landscaping will be approved by the Secretary of State and secured under Requirement 5 of the dDCO.</p>
18	Applicant to submit intention of submitting a change request as in line with Advice Note 16	<p>Highways England notified the ExA of its intention to submit a request for three additional changes to its DCO application on 10 March 2021. As Highways England submitted an earlier change request to the ExA at deadline 3A on 18 February 2021 for changes numbered 1 to 4 [REP3A-002], the changes outlined in the prospective change request have been numbered to follow on sequentially from those, and as such are referred to as Changes 5, 6 and 7 which are outlined below:</p> <ul style="list-style-type: none"> <li>• Change 5 – Reduction to the realignment of the Weald Brook (Work No. 23C)</li> <li>• Change 6 – Realignment of UK Power Networks diversion (Work No. 30)</li> <li>• Change 7 – Refinement of Maylands golf course accommodation works (Work No. 32).</li> </ul>

Action	Description	Highway England response
		Highways England's intention is to undertake targeted non-statutory consultation on Changes 5 to 7 before submitting a formal change request to the ExA. If Change 7 is applied for following consultation and accepted by the ExA, Highways England's intention is to then withdraw Change 3 and proceed only with Change 7.
19	Applicant to provide more detailed explanation from Works Nos 1,3,5,7, and Works Nos 11 onward.	See table below in Appendix A.
20	Applicant to confirm how deer's protections are secured in DCO.	Highways England has amended Requirement 13 in the updated version of the draft DCO submitted at Deadline 4 to secure the provision of deer fencing.

## Appendix A. Works description in response to action point 19

Works as described in Schedule 1 of dDCO	Further explanation of described works
<b>Highway Works</b>	
<p><b>Work No. 1</b> – Improvements to a stretch of the existing A12 eastbound carriageway, along a length of approximately 1,800 metres, commencing at a location situated approximately 15 metres of the west of Woodstock Avenue and continuing eastwards to a point situated approximately 160 metres to the west of the existing Wigley Bush Lane overbridge, as shown on sheets 1 and 2 of the works plans.</p>	<p>Improvements to a stretch of the existing A12 eastbound carriageway, along a length of approximately 1,800 metres comprising signage and road markings to inform motorists of the realigned A12 eastbound off-slip, including proposed change of speed limit and signage and new lighting columns. There will also be works involving utility diversions.</p>
<p><b>Work No. 3</b> – Improvements to a stretch of the existing A12 eastbound on-slip, along a length of approximately 550 metres, commencing at the existing on-slip offside kerb at the circulatory carriageway of the M25 Junction 28 roundabout and terminating at a location situated approximately 160 metres to the west of the existing Wigley Bush Lane Overbridge, as shown on sheets 1 and 2 of the works plans.</p>	<p>Improvements to a stretch of the existing A12 eastbound on-slip (east of junction 28), along a length of approximately 550 metres to enable the new configuration of the A12 mainline and the proposed reconfiguration of the merge. These improvements consist principally of new road markings to delineate the new merge layout, associated pavement resurfacing as well as new traffic signs.</p>
<p><b>Work No. 5</b> – Improvements to the existing circulatory carriageway of the M25 Junction 28 roundabout, along a length of approximately 610 metres, at the location shown on sheet 1 of the works plan.</p>	<p>Improvements to the existing circulatory carriageway of the M25 Junction 28 roundabout, along a length of approximately 610 metres. These works involve resurfacing of the roundabout carriageway, reconfiguring directional signage and road markings as well as adjusting the traffic signals to reflect the traffic patterns through the junction 28 with the Scheme in place.</p>
<p><b>Work No. 7</b> — Improvements to a stretch of the existing M25 northbound carriageway, along a length of approximately 1,775 metres, commencing at the Poplars Railway bridge and continuing north westwards until a location situated approximately 1,250 metres north of the existing Brook Street Viaduct as shown on sheets 1, 3 and 4 of the works plans.</p>	<p>Improvements to a stretch of the existing M25 northbound carriageway that involves tying-in the new diverge from the motorway to the proposed loop road, and tying-in the new merge with the re-aligned slip road</p>
<b>Gantries &amp; signs</b>	
<p><b>Work No. 11</b> — A new gantry, or similar signage, over the M25 carriageway, at a location situated approximately 10 metres north of the Brook Street Viaduct, as shown on sheet 1 of the works plans.</p>	<p>New cantilever gantry to provide confirmatory signage to the proposed loop road for traffic travelling to the A12 eastbound.</p>
<b>Highways works – M25 northbound off-slip</b>	
<p><b>Work No. 12</b> — Improvements to the existing M25 motorway northbound off-slip, along a length of approximately 166 metres, commencing at a location situated approximately 125 metres north of the Poplar Railway bridge and continuing north westwards until the existing circulatory carriageway of the M25 Junction 28 roundabout, as shown on sheet 1 of the works plans.</p>	<p>Works to the existing M25 motorway northbound off-slip comprising new surfacing and revised layout and lane markings to reflect traffic patterns through junction 28 with the Scheme in place.</p>



Works as described in Schedule 1 of dDCO	Further explanation of described works
<b>Other highways, public rights of way and private means of access</b>	
<p><b>Work No. 13</b> — A new private means of access, approximately 600 metres in length, commencing at Work No. 19B and continuing in a north westerly direction, along the outer alignment of Work No. 6 and terminating in a north-eastwards and, separately, north-westwards direction at a location south of Work No. 24A and west of the proposed Duck Wood bridge, as shown on sheet 1 of the works plans.</p>	<p>A new private means of access, approximately 600 metres in length to provide an unbound access track for maintenance operations along the proposed loop road and access to environmental mitigations(Work No. 25), Cadent gas pipeline diversion (Work No. 29), Duck Wood bridge (as part of Work No. 6), and Maylands Bridge (Work No. 2).</p>
<p><b>Work No. 14</b> — A new private means of access approximately 519 metres in length, commencing at a point situated approximately 100 metres north of the existing Grove Farm access, passing through the proposed Grove Farm Underpass (Work No. 6) and terminating approximately 125 metres north of the aforementioned Underpass in a westwards and, separately, southwards direction, as shown on sheets 1 and 3 of the works plans. Work No. 14 includes a secondary section of private means of access, approximately 30 metres in length and branching westwards from a location to the northwest of the proposed Grove Farm Underpass (Work No. 6) and terminating in a northwards and, separately, westwards direction as shown on sheet 1 of the works plans.</p>	<p>A new private means of access approximately 519 metres in length to provide an unbound access track for maintenance operations of statutory undertakers, including but not limited to National Grid, UKPN, BPA. It is also necessary to provide access to the proposed drainage pond (Work No. 21B), Duck Wood bridge (part of Work No. 6) and to enable access for Grove Farm to land north of the loop.</p>
<p><b>Work No. 15</b> — Alterations to the existing egress from Grove Farm, approximately 50 metres in length, commencing at a point situated immediately to the west of the existing Grove Farm residential property and terminating at Work No. 2, as shown on sheet 1 of the works plans.</p>	<p>This work is necessary to preserve the existing Grove Farm access to the network and therefore a revised egress is proposed to tie in the proposed A12 off-slip. It will require the removal of the existing egress, construction of a new road formation, including embankments, road foundation and pavement, drainage and all ancillary works.</p>
<p><b>Work No. 16</b> — Alterations to the existing access and egress serving land situated to the immediate north of the A12, commencing at a new junction with the new private means of access (Work No. 19A), at a point situated 42 metres from the junction of the aforementioned new private means of access and the A12, and continuing northwards for a distance of approximately 35 metres in length as shown on sheet 1 of the works plans.</p>	<p>This work is needed to provide a replacement field access in to land owned by Glebelands. The existing access will be stopped up to enable the construction of the proposed A12 off-slip. The access will be of unbound construction and gated.</p>
<b>Earthworks</b>	
<p><b>Work No. 17</b> — Deposit of surplus construction materials, over an area of land approximately 22,000 square metres in area, at a location situated to the west of Weald Brook as shown on sheet 3 of the works plans.</p>	<p>Removed from the DCO Application.</p>
<p><b>Work No. 18</b> — Deposit of surplus construction materials, over an area of land approximately 23,100 square metres in area, at a location situated to the north of Work No. 19B as shown on sheet 1 of the works plans.</p>	<p>Subject to acceptance of change 2, this work will involve the construction of a new environmental bund made from site won material generated from the construction of the Scheme. This work will include placement of site won material with graded slopes and associated drainage to collect surface water run-off. The environmental bund will grass seeded and woodland planted on the south easterly facing slope.</p>

Works as described in Schedule 1 of dDCO	Further explanation of described works
<b>Drainage</b>	
<p><b>Work No. 19A</b> — A new private means of access, approximately 290 metres in length, commencing at a new junction with the A12 eastbound carriageway situated at a location lying approximately 50 metres to the east of the existing access to Maylands Golf Course and terminating at Work No. 19B, as shown on sheet 1 of the works plans.</p>	<p>Work No 19A constructs an unbound access track to maintain the proposed drainage pond and connects to Access track to west side of Loop road (Work No 13), Field access to Glebelands land (Work No 16), Drainage pond (Work No 19B) and Environmental mitigation (Work No 25).</p>
<p><b>Work No. 19B</b> — A new attenuation pond, together with associated private means of access and drainage facilities, approximately 2,600 square metres in area, and situated at a location to the north of Work No. 2 and west of Work No. 6, as shown on sheet 1 of the works plans.</p>	<p>Work No 19B involves the construction of an attenuation pond to receive rain fall run off from the A12 Eastbound offslip. The excavated pond will include headwalls and will be serviced by a maintenance track.</p>
<p><b>Work No. 20A</b> — A new private means of access, approximately 65 metres in length, commencing at a location situated approximately 110 metres south west of Duck Wood bridge and terminating at Work No. 20B, as shown on sheet 1 of the works plans.</p>	<p>Work No 20A involves the construction of a gated unbound access track for maintenance of the proposed drainage pond (Work No 20B). The access track also provides access to the flood compensation area (Work No 24B) and Duck Wood bridge (Work No 6).</p>
<p><b>Work No. 20B</b> — A new attenuation pond, together with associated private means of access and drainage facilities, approximately 7,000 square metres in area, and situated at a location to the west of the Weald Brook, as shown on sheet 1 of the works plans.</p>	<p>Work No 20B involves the construction of an attenuation pond to receive rainfall run off from the new loop road. The excavated pond will include headwalls and will be serviced by a maintenance track.</p>
<p><b>Work No. 21A</b> — A new private means of access, approximately 40 metres in length, commencing at a location situated 30 metres south of Grove Farm Underpass and terminating at Work No. 20B as shown on sheet 1 of the works plans.</p>	<p>Work No 21A involves the construction of a gated unbound access track connecting the private means of access (Work No 14) and drainage pond (Work No 21B). This access also serves National Grid's overhead electricity transmission line.</p>
<p><b>Work No. 21B</b> — A new attenuation pond, together with associated private means of access and drainage facilities, approximately 4,200 square metres in area, and situated at a location to the north east of the Weald Brook, as shown on sheet 1 of the works plans.</p>	<p>Work No 21B involves the construction of an attenuation pond which receives rain fall run off from the new loop road, the M25 onslip and the Grove Farm underpass. The excavated pond will include headwalls and will be serviced by a maintenance track. The pond outfalls to Weald Brook via Work No 22.</p>
<p><b>Work No. 22</b> — A new drainage outfall pipe, approximately 50 metres in length, between Work No. 21B and Weald Brook, as shown on sheet 1 of the works plans.</p>	<p>Work No 22 involves the construction of an outfall pipe from the pond (Work No 21B) to a headwall located within Weald Brook, at a suitable location to cross existing underground BPA utilities.</p>

Works as described in Schedule 1 of dDCO	Further explanation of described works
<b>Realignment of watercourses</b>	
<p><b>Work No. 23A</b> — Realignment of a stretch of the Weald Brook, along a length of approximately 85 metres, commencing at a location situated to the immediate east of Work No. 20B and west of Work No. 30, as shown on sheet 1 of the works plans</p>	<p>Work No 23A involves the construction of the realignment of a previously straight section of the Weald Brook to create more natural sinuous channel and provide mitigation of impact to the watercourse elsewhere in the scheme.</p>
<p><b>Work No. 23B</b> — Realignment of a stretch of the Weald Brook, along a length of approximately 250 metres, commencing at a location situated within the proposed loop road (Work No. 6), and passing beneath Work No. 2 at the location of the proposed new Maylands bridge and beneath Work No. 6 at the location of the proposed Grove bridge, as shown on sheet 1 of the works plans.</p>	<p>Work No 23B involves the construction of the realignment of a previously straight section of the Weald Brook to create more natural sinuous channel and provide mitigation of impact to the watercourse elsewhere in the scheme.</p>
<p><b>Work No. 23C</b> — Realignment of a stretch of the Weald Brook, along a length of approximately 70 metres, at a location situated towards the north western edge of Work No. 6 and passing beneath Work No. 6 at the location of the proposed Duck Wood bridge, as shown on sheet 1 of the works plans</p>	<p>Work No 23C involves the construction of a realigned straightened section Weald Brook, where it passes beneath Duck Wood bridge, in order to accommodate the central pier construction.</p>
<p><b>Work No. 23D</b> — Realignment of a stretch of the Ingrebourne River, along a length of approximately 200 metres, commencing at a point situated north of the A12 (Work No. 1), beneath the proposed Grove bridge on Work No. 6, and terminating at the location of the Grove Culvert extension, proposed as part of Work No. 2, as shown on sheet 1 of the works plans.</p>	<p>Work No 23D involves the construction of the realigned Ingrebourne River. This work provides a more natural sinuous alignment to replace the previous straightened section. This work provides ecological mitigation measures by way of creating Wetland habitat, including the flowing channel, backwater and marshy grassland.</p>
<b>Environmental mitigation and compensation</b>	
<p><b>Work No. 24A</b> — A new flood compensation area, approximately 2,100 square metres in area, and situated to the immediate northwest of Work No. 6, as shown on sheets 1 and 3 of the works plans.</p>	<p>Work No 24A involves the creation of a flood compensation area. This work involves lowering the levels of the land upstream of Duck Wood bridge to accommodate flood flows and keep flooding in the existing watercourse corridor, whilst creating a wet grassland habitat.</p>
<p><b>Work No. 24B</b> — A new flood compensation area, approximately 7,800 square metres in area, and situated within the proposed loop road (Work No. 6), to the west of the realigned Weald Brook (Works Nos. 23A and 23B), as shown on sheet 1 of the works plans.</p>	<p>Work No 24B involves the creation of a flood compensation area. This work involves lowering the levels of the land upstream of Maylands and Grove bridges to accommodate flood flows and keep flooding in the existing watercourse corridor, whilst creating a wet grassland habitat.</p>

Works as described in Schedule 1 of dDCO	Further explanation of described works
<p><b>Work No. 25</b> — Environmental works, including the construction of ecological compensation areas, approximately 90,000 square metres in area, on land situated to the west and northwest of Work No. 6, as shown respectively on sheets 1 and 3 of the works plans.</p>	<p>Work No 25 involves the creation of environmental works which include:</p> <ul style="list-style-type: none"> <li>• creation of a broad-leaved woodland belt along the western edge of the loop road to provide visual screening to nearby receptors and replace woodland habitat lost to the Scheme.</li> <li>• creation of flower abundant grassland</li> <li>• creation of tussocky grassland and scrub mix</li> <li>• enhancement of existing grassland/scrub habitats including management of non-native plant species.</li> <li>• creation of features specific for species such as ponds for great crested newts, dead wood habitat for invertebrates, sheltering and hibernating opportunities for newts and reptiles</li> </ul>
<p><b>Work No. 26</b> — A new ecological mitigation area, approximately 3,500 square metres in area, on land situated between Work No. 2 and Work No. 6, as shown on sheet 1 of the works plans.</p>	<p>Work No 26 involves construction work to lower the floodplain alongside the realigned Ingrebourne river (Work No 23D) and create backwaters between Grove culvert and the confluence of Weald Brook/Ingrebourne river. This will also include the provision of wet grassy marshland planting to create wetland habitat.</p>
<p><b>Work No. 27</b> — A new pond, for environmental mitigation purposes, approximately 500 square metres in area, and situated at a location to the south of Work No. 17 as shown on sheet 3 of the works plans.</p>	<p>Work No 27 will involve the construction of a new pond to the north of the loop road and west of the Weald Brook to provide additional breeding opportunities for great crested newts.</p>
<p><b>Work No. 28</b>— A new pond, for environmental mitigation purposes, approximately 500 square metres in area, and situated at a location to the south of Work No. 27 and west of Work No. 24A as shown on sheet 3 of the works plans.</p>	<p>Work No 28 will involve the construction of a new pond to the north of the loop road and west of the Weald Brook to provide additional breeding opportunities for great crested newts.</p>
Utility Works	
<p><b>Work No. 29</b> — Diversion of an existing underground Cadent high pressure (33bar) gas pipeline, through installation of a new underground high pressure (33bar) gas pipeline, approximately 860 metres in length, commencing at a point situated west of Weald Brook and south of the A12 (Work No. 1) and terminating north of Work No. 24A as shown on sheets 1 and 3 of the works plans.</p>	<p>Work No 29 involves the diversion underground of an existing underground Cadent high pressure gas pipeline over a length of approximately 860 metres. The existing pipeline is directly affected by the construction of the proposed works.</p>
<p><b>Work No. 30</b> — Diversion underground of an existing UKPN 11 kV overhead electric line, approximately 640 metres in length, commencing at a point situated south of Work No. 6, in proximity of the proposed Grove bridge and terminating approximately 120 metres north of Work No. 6 and Duck Wood bridge as shown on sheets 1 and 3 of the works plans.</p>	<p>Work No 30 involves the diversion underground of a length of existing overhead 11kV electricity power line over a length of approximately 640 metres. The existing overhead line is directly affected by the construction of the proposed works and the associated diverted length assets will be removed.</p>

Works as described in Schedule 1 of dDCO	Further explanation of described works
<p><b>Work No. 31</b> — Works associated with the provision of ducting and cabling between the proposed new gantry (Work No. 10) and the existing motorway communications cabinet on the M25 northbound, situated at a location approximately 825 metres northwards of the existing M25 Northbound on-slip at M25 Junction 28, as shown on sheet 3 of the works plans.</p>	<p>Work No 31 involves the provision of cabling between the proposed gantry (Work No 10) and the existing motorway communications cabinet in the northbound verge of the M25 located north of the proposed northbound on-slip.</p>
Accommodation works	
<p><b>Work No. 32</b> — Accommodation works to provide replacement facilities for Maylands Golf Course, over an area of land approximately 13,521 square metres in area and situated at a location to the west of Work No. 29 as shown on sheets 1 and 3 of the works plans.</p>	<p>Work No 32 involves the construction of a replacement hole 2 on Maylands golf course, consisting of Tee off area, fairway, green and associated bunkers. The works are associated with tree planting (Work No 25).</p>

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