M25 junction 10/A3 Wisley interchange

TR010030

9.58 Applicant's Response to the Examining Authority's Second Written Questions

Rule 8(1)(b)

Planning Act 2008

Infrastructure Planning (Examination Procedure) Rules 2010

Volume 9

March 2020

Infrastructure Planning

Planning Act 2008

The Infrastructure Planning (Examination Procedure) Rules 2010

M25 junction 10/A3 Wisley interchange

Development Consent Order 202[x]

9.58 APPLICANT'S RESPONSE TO THE EXAMINING AUTHORITY'S SECOND WRITTEN QUESTIONS

Rule Number:	Rule 8(1)(b)
Planning Inspectorate Scheme Reference	TR010030
Application Document Reference	TR010030/9.58
Author:	M25 junction 10/A3 Wisley interchange project team, Highways England and Atkins

Version	Date	Status of Version
Rev 0	3 March 2020	Deadline 5

Table of Contents

Question Number	Question to:	Question	Highways England Response
1. General			
2.1.1	Applicant	At ISH2 the ExA asked the following question of the Applicant further to the answers the Applicant had given to the ExA's first written questions 1.13.1 and 1.13.2 at page 101 of REP2-013: *If there was no NSIP scheme programmed within the Road Investment Strategy, would any additional lane running on the mainline of the M25 at junction 10 be introduced under the Do-minimum scenario, bearing in mind that in the recent past four lane running was to have been included in the Smart Motorway scheme for junction 10 to J16 (see paras 3.5.8 and 3.5.9 of the TA [APP-136])?* The response to this question was that there would be some sort of works at junction 10 even if the M25 junction 10 and A3 scheme was not being promoted and that the junction 10 to junction 16 scheme would still include the junction 10 smart motorway running elements. As recorded in paragraph 3.1.9 of [REP3-009] it was further stated that '… the Applicant would discuss this with senior members of its team and reply in writing'. The reply given to the ExA at ISH2 to its question suggests that were there to be no submitted NSIP application some works at Junction 10 would be undertaken to provide additional traffic capacity and to respond to this junction's	Further to ISH2, the Applicant has set out below its position on this matter.

Question Number	Question to:	Question	Highways England Response
1. General			
		accident record. The ExA considers that the undertaking of any such works could have implications for the comparisons that have been made between the Do-minimum and Do-something scenarios referred to in the submitted TA [APP-136] and chapters of the ES. The Applicant is requested to give the written reply to the ExA's question it undertook to provide at ISH2. In doing that the Applicant should:	
		a) clarify what works would otherwise be undertaken at Junction 10 as part of the smart motorway scheme for Junctions 10 to 16 had the NSIP application for the Proposed Development not been submitted; and	It is not possible to clarify with certainty which works would have been undertaken at junction 10 as part of the SMP scheme for junctions 10 – 16 had the DCO application not been submitted. In late 2017 the delivery of the M25 junction 10 through junction running element of the M25 J10-16 SMP scheme was incorporated as part of the M25 junction 10 / A3 Scheme. The M25 J10-16 SMP scheme has therefore not since that time included any works at M25 junction 10. The SMP element forms part of the Scheme and has been assessed in the Do Minimum scenario accordingly.
		b) explain what the implications of undertaking those works would have for the Do minimum and Do-something comparisons set out in the TA and any of the conclusions stated within the conclusions stated within the ES which are affected by traffic flows	It is not possible to explain the implications of undertaking those works in isolation from the Scheme because they form part of the Scheme and have therefore been appropriately assessed as part of the Do-Something scenarios in the TA.
2.1.2	Applicant	In regard to any potential impacts on air quality considerations or any other relevant issues, and further to your response to the ExA's first written question 1.4.5 [REP2-013], please comment on the Government's recently	The UK Government is currently consulting on a revision to its intention to ban new sales of petrol and diesel cars from 2040, as documented in the '*The Road to Zero'* strategy, to an earlier year of 2035 and to additionally include hybrid cars within the ban.

Question Number	Question to:	Question	Highways England Response
1. General			
		announced intention to bring forward the date from which the sale of petrol, diesel and hybrid cars are to be banned from 2040 to 2035.	Electric cars do not emit any NO_x at source, and petrol vehicles emit less NO_x than diesel vehicles. It follows, therefore, that once the recent new car sales data are taken into account in DEFRA's Emissions Factors Toolkit (EFT), that the NO_x emission factors, and consequentially NO_2 concentrations emissions for future years used in the air quality assessment are likely to be overestimated for all future years, with a greater overestimate for the years closer to 2030. With the proposed intention to bring this ban forward and include hybrid vehicles, the rate of overestimation for NO_x emissions and NO_2 concentrations in future years is likely to be even higher. However, the effect on pollutant concentrations for the opening year of the scheme (2022) is unlikely to be significant. Given that the air quality assessment also allows for uncertainty in the emission factors as is standard practice with Highways England schemes, as documented in Applicant's Response to Written Questions [REP2-013], response 1.4.5, it is considered likely that the future concentrations would be a conservative estimate, and with an increase in the sales of electric vehicles, continue to remain as a conservative estimate. There is hence no change to the conclusions of the assessment.

Question Number	Question to:	Question	Highways England Response
2. Principle and Nature of Development			
2.2.1	Applicant	At Deadlines 1 and 2 in responding to the written representations that have been made by the RHS and the residents of Painshill, reference has been made to the current design standards no longer permitting direct accesses to dual 3-lane all-purpose roads and that '… it is implied that this is also not permitted for dual 4-lane all purpose roads …' (for example as stated on page 139 of REP1-009). The use of the phrase 'implied' suggests that there may not be a specific set of design standards for dual 4-lane all purpose roads set out in the Design Manual for Roads and Bridges or any other highway design guidance. Please identify what design standard guidance has been used in formulating the design for the dual 4-lane sections of the A3 that form part of the Proposed Development. In replying to this question please submit the design guidance documentation that has been relied upon.	All of the relevant guidance in the DMRB has been used for the design of the dual 4-lane sections of the A3. Extracts to DMRB CD123 and CD127 are provided in document ref: TR010030/EXAM/9.67, which is provided at Deadline 5. DMRB guidance CD123 para 2.28 states *'Direct accesses shall not be provided on motorways, all-purpose dual three lane carriageways and on WS2+1 roads'*. Hence by implication direct accesses are not permitted on all-purpose dual four lane carriageways. The design guidance in the DMRB CD127 Cross Sections and Headrooms Figure 2.2.1N1e *'Dimensions of cross-section components for rural all-purpose roads mainline'*, refers to a dual carriageway with 2 or 3 lanes only because the DMRB does not permit 4-lane all-purpose dual carriageways (D4AP). However, Figure 2.1.1N1a *'Dimensions of cross-section components for a rural motorway mainline'*, refers to a 4-lane motorway and it is this lane arrangement that has been used for the cross section of the 4-lane all-purpose roads that form part of the Proposed Development. This means a departure from the standard will need to be approved at detailed design stage for a D4AP. This would be likely to be a straightforward departure as the high traffic volumes on this section of the A3 require 4 lanes and there are many examples on the network of 4 lane all-purpose roads. One recent example of a similar D4AP layout is the Bar Hill to Girton A14 Improvement Scheme.
2.2.2	Applicant	Please respond to the contention made by Mr Eve in [REP3-067] that the Proposed Development would have an adverse effect on climate change as it would have the effect of increasing capacity for road users and thus would help to discourage more sustainable alternative forms of travel.	Although there is expected to be an increase in carbon dioxide emissions as a result of the Scheme over the traffic modelled area, this represents a very small increase of only 0.2% compared to the do-minimum situation, and is lower than the increase in vehicle kilometres travelled with the Scheme of 0.6% compared with the do-minimum situation in the opening year (Table

Question Number	Question to:	Question	Highways England Response
2. Principle and Nature of Development			
			5.13 of APP-050), as a result of a reduction in congestion around junction 10 with the Scheme. The key driver to reducing carbon dioxide emissions from road transport will be through national policy measures such as the move to zero emission vehicles (3.6 and 3.7 of NNNPS). Modal shift to alternative forms of travel will not be able to provide for the numbers of movements required at junction 10 either currently or in the future, as supported by Table 1 of NNNPS. As stated by Highways England in Table 3.4 of HRA Stage 3-5: Assessment of alternatives [APP-044], consideration of imperative reasons of overriding public interest (IROPI) and compensatory measures that more sustainable alternative forms of travel would not address the problems currently experienced at M25 J10 and those forecast to occur in the future. Whilst the Scheme focuses on improving safety and increasing capacity for road users to meet the objectives of the scheme, it also improves routes for sustainable transport modes. The non-motorised user route between Ockham Park roundabout and Painshill roundabout is much improved and crossing the M25 at J10 would no longer be undertaken using signalised crossings around the interchange. This route would link in to Guildford's Local Plan site A35 and potentially enable the residents of those house (subject to a planning application being granted approval) being able to move more sustainably between Ripley and Cobham.

Question Number	Question to:	Question	Highways England Response
3. Air Quality and Human Health			
2.3.1	Applicant	Provide explanation as to why the Secretary of State can be confident that they have sufficient evidence relating to NOx concentrations within the Thames Basin Heaths Special Protection Area (SPA) to be able to undertake an Appropriate Assessment for the purposes of the Habitats Regulations (in the event of being minded to grant a DCO for the Proposed Development).	Changes in concentrations of NOx are commonly calculated in order to determine whether a likely significant effect may occur within a designated site. If that is the case, further assessment is required including the calculation of nitrogen deposition rates. This is documented in IAN 174/13 (section 2.6). In the more recent DMRB LA105 air quality guidance [REP3-020], the focus is only on nitrogen deposition, and the requirement to firstly screen the changes in NOx concentrations is no longer included (paras 2.41 to 2.44, and para 2.98 of LA105). This is because the strongest effect of NOx emissions is considered to be through its contribution to nitrogen deposition than for direct effects of exposure (http://www.apis.ac.uk/overview/pollutants/overview_NOx.htm). As noted previously at 2.5 of Response to RHS Comments on Air Quality [REP2-022] Natural England did not request specific information on changes in NOx concentrations to be included in the Statement to Inform an Appropriate Assessment (SIAA) (Habitats Regulations Assessment: Stage 2 [APP-043]). At a further meeting with Natural England held on 24 January 2020, they confirmed that they had not changed their view. Nitrogen deposition rates were hence provided for all the transect points within the SPA for the SIAA. The initial screening step for NOx was however carried out in the air quality assessment and documented in Environmental Statement Chapter 5: Air Quality [APP-050] and Environmental Statement Appendix 5.1 Air Quality [APP-080]. The NOx concentrations at all transect points are provided within the air quality assessment at Table 5.7.10 of APP-080.

Question Number	Question to:	Question	Highways England Response
3. Air Quality and Human Health			
			To assist the ExA, NOx concentrations are provided in the table below for the receptor points within the Thames Basin Heaths SPA where qualifying features would be present. It can be seen that at all these receptor points there would not be any exceedances of the critical level for NOx of 30 µg/m^3. *Estimated Annual Mean NO_X concentrations (µg/m^3) for ecological transect points in the Thames Basin Heaths SPA*

Receptor ID	Distance from road centre (m)	2015 Base NO_x	2022 DM NO_x	2022 DS NO_x	2022 NO_x Change
Transect West of A3 (north of Wisley Lane)					
R132	150	25.5	18.8	18.4	-0.4
R133	200	23.4	17.1	16.8	-0.3
Transect East of A3 (near Boldermere)					
R139	150	28.7	21.6	21.0	-0.6
R140	200	25.5	18.9	18.5	-0.4
Transect West of A3 (close to junction 10)					
R147	150	32.2	23.3	23.1	-0.2
R148	200	30.2	21.9	21.8	-0.1

Question Number	Question to:	Question	Highways England Response
3. Air Quality and Human Health			
			Transect East of A3 (close to junction 10)
			R155 | 150 | 35.6 | 24.8 | 24.6 | -0.2
			R156 | 200 | 31.8 | 22.4 | 22.2 | -0.2
			Transect South of M25 (west of junction 10)
			R163 | 150 | 33.4 | 24.8 | 24.9 | +0.1
			R164 | 200 | 30.2 | 22.3 | 22.3 | <0.1
			Transect South of M25 (east of junction 10)
			R193 | 150 | 35.0 | 25.4 | 25.1 | -0.3
			R194 | 200 | 32.1 | 23.1 | 22.9 | -0.2
			Therefore, the Secretary of State can be confident that they have sufficient evidence relating to NOx concentrations within the Thames Basin Heaths Special Protection Area (SPA) to be able to undertake an Appropriate Assessment for the purposes of the Habitats Regulations.

Question Number	Question to:	Question	Highways England Response
3. Air Quality and Human Health			
2.3.3	Applicant	With reference to your submission in REP3-009 please explain how doubling deposition rates is an appropriate way of estimating the effect of ammonia emissions. Please provide an explanation of how this estimation would affect the conclusions of the SIAA [APP-043].	Both NOx (oxidised nitrogen) and ammonia (NH_3, reduced nitrogen) contribute to nitrogen deposition. However, NOx is considered to be the key contributor to nitrogen deposition near major roads, according to the APIS website[1] and Natural England document NECR200 in section 2.3[2], whereas ammonia is the key contributor to nitrogen deposition in rural areas from farming practices. Ammonia can be emitted from road traffic as a by-product of controls to reduce NOx emissions, such as from early three-way catalytic converters for petrol cars, and selective catalytic reduction (SCR) systems for diesel vehicles, but emissions from this sector are considered small (1.6% of total 2018 UK emissions[3]), and ammonia is not considered in the air quality assessment of road traffic. NOx is the focus of assessment of designated sites according to the DMRB air quality guidance HA207/07 and LA105 [REP3-020], IAQM guidance[4], and Natural England guidance (NEA001) [REP3-021]. As discussed in REP2-022 (section 2.7), the changes in the nitrogen deposition rates with the Scheme were doubled to take account of emissions of ammonia from traffic. This approach was considered precautionary, given that this would require ammonia and nitrogen to contribute in equal quantities to the change in nitrogen deposition rates arising from road traffic emissions with the Scheme, whereas the dominant contributor to nitrogen deposition rates near roads will be NOx, as noted above.

[1] Available at: http://www.apis.ac.uk/overview/pollutants/overview_N_deposition.htm
[2] NECR200 (2016) - Potential risk of impacts of nitrogen oxides from road traffic on designated nature conservation sites, available at: http://publications.naturalengland.org.uk/publication/6331846246793216
[3] Defra (2020) - Emissions of air pollutants in the UK, 1970 to 2018 – Ammonia (NH3), available at: https://www.gov.uk/government/publications/emissions-of-air-pollutants/emissions-of-air-pollutants-in-the-uk-1970-to-2018-ammonia-nh3
[4] IAQM (2019) - A guide to the assessment of air quality impacts on designated nature conservation sites, available at: https://iaqm.co.uk/text/guidance/air-quality-impacts-on-nature-sites-2019.pdf

Question Number	Question to:	Question	Highways England Response
3. Air Quality and Human Health			
			Since the initial response was prepared in REP2-022, further analysis of the monitoring data to which RHS refer in REP1-041 has been undertaken. Figure 1 in REP1-041 shows that concentrations of ammonia in the Ashdown Forest SAC decrease rapidly from the edge of the road, such that by 30 metres they are at background levels. This is supported by research from Natural England's report which notes that "*elevation in soil nitrogen will be limited to areas within tens of metres of roads due to the high rates of deposition of this gas*"[5]. The monitoring data thus indicates that the contribution of ammonia to nitrogen deposition rates at the distance at which the qualifying features of the Thames Basin Heaths SPA are present (over 150 metres) would not be attributable to a road source, (as has already been shown to be the case for NOx) and hence the Scheme is unlikely to have a discernible effect on nitrogen deposition rates at this distance. The conclusions of the SIAA would not be affected.
2.3.5	Applicant	Do you accept that if the Proposed Development was amended to incorporate the provision of south facing slips at the Ockham Park junction and the retention of a left turn exit from Wisley Lane that the amount of Carbon Dioxide emissions could be reduced by the order of 12% [paragraph 4.2 of REP1-041]? If not, then justify your reasoning.	Highways England does not accept that the provision of south facing slips at the Ockham Park junction and the retention of a left turn exit from Wisley Lane would reduce carbon dioxide emissions by the order of 12%. It is understood that this figure of 12% has been derived from the estimated change in vehicle kilometres with the RHS Alternative as documented in REP1-044. Although Highways England has not calculated the vehicle kilometres with the RHS Alternative, it has calculated the additional CO_2 emissions that would be generated by traffic between the A3 to the south travelling to and

[5] Page 16 within NECR199 (2016) - The ecological effects of air pollution from road transport: an updated review, edition 2 available at: http://publications.naturalengland.org.uk/publication/6212190873845760

Question Number	Question to:	Question	Highways England Response
3. Air Quality and Human Health			
			from RHS Wisley, by comparing emissions generated by traffic following the signposted route via junction 10, with the route through Ripley. Although the route through Ripley is not the same as the proposed RHS Alternative, it is not dissimilar. The route taken by traffic travelling through Ripley is marginally longer than the RHS Alternative, which would use south facing slips from Ockham junction to directly access the A3. The calculations in Table 3.1 of REP2-022 show an increase of 639 tonnes of CO_2 in the opening year assuming all motorists use the signposted route, compared to travelling through Ripley. This increase is only 0.04% of the total emissions with the Scheme. With the RHS Alternative, even if the difference in CO_2 emissions is higher, the emissions would still be less than 1% of the total emissions with the Scheme and can still be considered negligible.
2.3.6	Applicant and Local Authorities	Have the air quality implications of the Proposed Development for Ripley been robustly assessed within the ES, having particular regard to the number and suitability of receptor properties that have been used [paragraphs 5.3 and 5.4 of REP1-041] and the extent to which the Applicant's modelling has been verified and modified against the monitoring data that is available for Ripley?	Yes. The environmental assessment of Highways England schemes was undertaken at a level of complexity proportionate to the scale and stage of a project (DMRB LA101 paragraph 2.3.1). For the M25 Junction 10 scheme a detailed level of assessment (using dispersion modelling) was applied across the entire study area. Verification of the modelled pollutant concentrations through comparison to actual concentrations is an important component of any air quality assessment. The study area for the M25 junction 10 improvement scheme covered an extensive area, as shown in Figure 5.1 of APP-064, and a comparison of modelled and monitored NO_2 data for the base year 2015 was undertaken at 58 monitoring sites within the study area. Following the use of adjustment factors, in line with standard procedures in DEFRA's technical guidance (LAQM.TG16), 57 out of 58 monitoring sites were within 25% of the modelled concentrations indicating acceptable model performance (para

Question Number	Question to:	Question	Highways England Response
3. Air Quality and Human Health			
			5.5.21 of APP-050 and Table 5.4.4 of APP-080). Over half of the sites (29) were within 10% of the modelled concentrations. The assessment presented estimated concentrations at 89 human health receptors during the opening year. Of these, one receptor was selected within Ripley (R59). This was the closest residential receptor in the assessment to the junction with Newark Lane and the B2215 High Street. Annual mean nitrogen dioxide concentrations at this receptor were estimated to be below the air quality objective at this receptor, showing an imperceptible change with the Scheme. Given that the air quality assessment was undertaken using traffic data for an earlier design fix (DF2), with a higher change in traffic with the Scheme than with DF3 (as discussed at 4.2.4 in REP2-022) the reported effect of the Scheme in the ES was conservative. As discussed in section 4.3 of REP2-022, recent monitoring by the local authority in Ripley since 2016 showed that the measured concentrations at roadside sites were higher than the modelled estimates, however, there were no measured exceedances of the annual mean nitrogen dioxide objective, nor was there any indication of a risk that the objective would be exceeded. The highest measured concentration was 34 µg/m^3 at a roadside site in 2016, below the annual mean objective of 40 µg/m^3. Following the representation made by RHS Wisley [REP1-041], Highways England acknowledged that there are additional receptors in Ripley, some of which are closer to the road than the originally selected receptor [REP2-022 section 4.2]. Additional modelling was presented, however, the 2016 monitoring data in Ripley was not specifically included in the verification

Question Number	Question to:	Question	Highways England Response
3. Air Quality and Human Health			
			To assist the ExA in reaching a conclusion on the implications of the Scheme at Ripley, a local verification factor has been derived by comparing the 2016 monitoring data in Ripley with the modelled concentrations for the 2015 base year. The modelled results for the receptors in Ripley have been updated using a local verification factor of 2.75. The estimated annual mean nitrogen dioxide concentrations, using the more conservative DF2 traffic data, are provided in the table below. Concentrations at all modelled receptors are comfortably below the annual mean air quality objective of 40 µg/m^3, and the largest change at a receptor is 1.7 µg/m^3, which is classed as a small change. The change with DF3 traffic data would be smaller, as explained at 4.2.4 in REP2-022. Using the locally derived adjustment factor and including additional receptors has therefore not altered the conclusions of the air quality assessment as presented in APP-050. This justifies the proportionate approach presented originally in the ES. *Estimated nitrogen dioxide concentrations in Ripley, µg/m^3, using local adjustment factor*

Receptor ID	2015 Base	2022 DM	2022 DS	2022 Change
R59	33.4	27.1	27.9	+0.8
Additional Receptors in Ripley as documented in REP2-022				
R1	30.6	24.5	25.3	+0.8
R2	36.3	29.6	30.3	+0.7
R3	34.3	27.7	28.8	+1.1
R4	36.3	29.5	30.7	+1.2

Question Number	Question to:	Question	Highways England Response
3. Air Quality and Human Health			
			<table><tr><td>R5</td><td>37.6</td><td>31.3</td><td>33.0</td><td>+1.7</td></tr><tr><td>R6</td><td>37.7</td><td>31.5</td><td>33.1</td><td>+1.6</td></tr></table> Therefore, the ExA can be confident that the air quality implications of the Proposed Development for Ripley have been robustly assessed within the ES.
2.3.8	Applicant	Having regard to the provisions of paragraph 5.13 of the NPS for National Networks does the Proposed Development have any potential for a 'zone/agglomeration' which is currently reported as being compliant with the Air Quality Directive becoming non-compliant?	The pollutant of importance for compliance with the EU Air Quality Directive for road schemes is nitrogen dioxide, as all zones are currently meeting the relevant limit values for particulate matter (PM_{10} and $PM_{2.5}$), as documented in DEFRA's Air Pollution in the UK 2018 Compliance Assessment Summary[6]. The roads considered in the air quality assessment for the Scheme fall within Zone 31 (South East) and Zone 1 (Greater London Urban Area). In 2018, neither of these zones was compliant with the annual mean limit value for nitrogen dioxide. In addition, Zone 1 was not compliant with the 1-hour mean limit value for nitrogen dioxide. Hence, there is no potential for a zone currently reported as being compliant to become non-compliant, as a result of the Scheme. The assessment of compliance with the Air Quality Directive is documented in Environmental Statement Chapter 5: Air Quality [APP-050], section 5.8. This is a conservative assessment which estimated changes in NO_2 using the long-term trends (LTT) method, in accordance with IAN 170/12v3.

[6] DEFRA's Air Pollution in the UK 2018 Compliance Assessment Summary, available at https://uk-air.defra.gov.uk/library/annualreport/assets/documents/annualreport/air_pollution_uk_2018_Compliance_Assessment_Summary_Issue1.pdf

Question Number	Question to:	Question	Highways England Response
3. Air Quality and Human Health			
2.3.9	Elmbridge BC (EBC) and Applicant	At ISH2, Elmbridge BC offered to share further information derived from air quality modelling for its Local Plan with the Applicant. Please provide an update on any progress on this point	The Applicant has not yet received any further air quality information from Elmbridge Brough Council. Elmbridge Borough Council have agreed to a number of air quality points (7.2.1 and 7.2.2) in the Statement of Common Ground submitted at Deadline 5, TR0130030/EXAM/9.35 Statement of Common Ground with Elmbridge Borough Council (Rev 1), notably that the Applicant has used the most up to date information available at the time and the assessment conclusions of the Environmental Statement.

Question Number	Question to:	Question	Highways England Response
4. Biodiversity			
2.4.1	Applicant	In your response to written representations [REP2-014, p88] you refer to the possibility of providing a culverted underpass under the Wisely Lane diversion to facilitate the passage of wildlife including for badgers and amphibians. Please can you provide an update on this, including how a decision on this would be reached at the detailed design stage and whether or not this has been accounted for in the ES and any other relevant submitted documents?	Paragraph 7.10.43 of the Biodiversity chapter of the Environmental Statement [APP-052] does commit to maintaining the permeability of Wisley Lane for amphibians and reptiles. However, the impact assessments for Elm Corner Woods Site of Nature Conservation Interest (SNCI) and Wisley Airfield SNCI, as summarised in Table 7.8 of the Biodiversity chapter of the Environmental Statement [APP-052] do not take a culverted underpass into account when considering the residual impacts. The mitigation measures will be refined during detailed design but are likely to include a number of measures to maintain permeability. These measures include environmentally sensitive drainage systems (that are amphibian and reptile friendly), a wide-span bridge over Stratford Brook allowing continuous riparian habitat and wildlife passage (e.g. amphibians, reptiles and badgers) under Wisley Lane at Stratford Brook, and an additional wildlife passage under the Wisley Lane diversion in Elm Corner SNCI. The wide-span bridge over Stratford Brook has been committed into the design as specified in paragraphs 7.4.37 to 7.4.40 of the Biodiversity chapter of the Environmental Statement [APP-052]. The inclusion of a wildlife friendly underpass under Wisley Lane diversion is not included in the Landscape and Ecology Management and Monitoring Plan [APP-106]. The assessment of residual ecological effects does not include the provision of an underpass under Wisley Lane. The final decision as to the composition of the mitigation will be informed by technical feasibility, driven by the detailed design of the Wisley Lane diversion overbridge.
2.4.2	Applicant and NE	Table 7.2.1 of the SPA Management and Monitoring Plan [AS-015, page 9] lists 'heathland (restored)'. Please clarify if this is referring to the enhancement areas E1, E2, E3, E5 and	Yes, in Table 7.2.1 of the SPA Management and Monitoring Plan [AS-015], row 3 (Heathland (restored)) is referring to the proposed conversion of mixed woodland to heathland for E1, E5 and E6 and parts of E2 and E3.

Question Number	Question to:	Question	Highways England Response
4. Biodiversity			
		E6 that are to be converted from mixed woodland to heathland?	
2.4.4	Applicant	Further to your response to written representations [REP2-014, page 56] please provide an update on progress on the agreement that is being sought between yourselves and SCC and SWT under which SWT would undertake the necessary measures in regard to the SPA compensation land and SPA enhancement areas.	The Applicant continues to work with Surrey County Council (SCC) and Surrey Wildlife Trust (SWT) to put in place an agreement for securing the long-term management and maintenance of environmental/ecological measures on the SPA compensation land and SPA enhancement areas, which are currently owned by SCC and managed by SWT. A draft agreement has been shared with SCC and the terms of that draft agreement were discussed between the Applicant and SCC at a meeting on 17 February 2020. The text of the draft agreement has been revised and re-circulated as a result of that meeting and Highways England, SCC and representatives of SWT are due to meet for further discussions on the terms of the draft on 9 March 2020. The draft agreement envisages an initial period during which the Applicant's principal contractor would undertake works to, and maintenance of, both the SPA compensation land and SPA enhancement areas. This initial period will last up to five years, following which the long-term maintenance and management of these areas would effectively be contracted out to SWT. This long-term maintenance and monitoring period will last for up to a further twenty years (depending on the area and the works to be undertaken). This is in line with the programme of works and the responsibilities of the parties as proposed in the SPA Management and Monitoring Plan [AS-015]. Note that the agreement will also provide for SWT to perform the long-term maintenance and monitoring work on SCL replacement land which will vest in SCC after that land has been laid out and provided by the Applicant (in accordance with Requirement 7 of the dDCO [REP2-002]). The programme of works proposed to be carried out on the SCL replacement land is detailed in the Landscape and Ecology Management and Monitoring Plan [REP4-

Question Number	Question to:	Question	Highways England Response
4. Biodiversity			
			032]. The agreement includes provisions to ensure that the works are carried out to the necessary standard and also includes provisions to allow Highways England to step-in and perform the works itself in the event that they are not carried out to the necessary standard. Whilst the Applicant and the other parties are working to finalise the agreement before the end of the examination period, it should be stressed that the dDCO contains the necessary powers for the Applicant to acquire and/or possess land in order to discharge the requirement to carry out these measures. The agreement is thus not a necessary condition for securing the performance of the necessary environmental/ecological works on the SPA compensation land and SPA enhancement areas (the SCL replacement land).
2.4.5	Applicant	Further to your response in [REP3-007] please indicate how you are going to ensure that all the proposed long-term management and monitoring is adequately funded. Please confirm how this would apply to the other green measures and environmental elements, not just those that are Habitats Regulations related (as per the LIR [REP2-047]).	As stated in the Applicant's Funding Statement [APP-024], the Government has committed to fully fund the Scheme in the Department for Transport's 'Road Investment Strategy: for the 2015/16 – 2019/20 Road Period' (RIS1), published in December 2014. The full funding of the Scheme includes all the mitigation measures required as part of the Scheme and the proposed long-term management and monitoring of any such measures. Highways England's most recent Delivery Plan for 2019-20, continues to show the Scheme as a commitment for construction. In terms of other green elements and environmental measures, referred to in [REP2-047], as noted in the Applicant's comments [REP3-007] on Joint Local Impact Report submitted by Surrey County Council, Guildford Borough Council and Elmbridge Borough Council, the green bridge is not required as mitigation for the Scheme's effects but is proposed, subject to securing the necessary designated funds, to address the severance of habitats caused by the existing A3. This is confirmed in paragraph 17.4.4 of the Introduction to the Application and Scheme Description [APP-002]. The Applicant has also

Question Number	Question to:	Question	Highways England Response
4. Biodiversity			
			confirmed in its Comments on Written Representations [REP2-014] (see page 42, reference number REP1-020-57) that it will be prepared to accept responsibility for the maintenance of the green verge. The Applicant welcomes the local authorities' support for proposals to widen the green verge, again the widened bridge proposal will be subject to securing the necessary designated funds.
2.4.9	Applicant	Given the statutory duty to be discharged under the provisions of the Habitats Regulations is it appropriate for possible alternative scheme options to be discounted on costs grounds notwithstanding the scheme funding allocation included within the Road Investment Strategy, as referred to in various places in the Habitats Regulations Assessment Stage 3-5: Assessment of alternatives, consideration of imperative reasons of overriding public interest (IROPI) and compensatory measures [APP-044]?	As explained at paragraph 3.4.11 of Habitats Regulations Assessment: Stage 3-5: Assessment of alternatives, consideration of imperative reasons of overriding public interest (IROPI) and compensatory measures [APP-044], various criteria (including cost) were applied to the assessment of potential alternatives to the Scheme. Cost considerations were not however the sole or primary reason for the discounting of potential alternative solutions. As further explained at sections 3.4 and 3.5 of APP-044, an extensive assessment of potential alternative solutions was carried out which resulted in the selection of Option 14 as the preferred option, this included a step-back review in November 2019, as described in paragraph 3.5.7. Accordingly, in carrying out the assessment of potential alternatives as required under Article 6 of the Habitats Directive the Applicant did not exclude from consideration options which were likely to exceed the budget for the Scheme identified in the Road Investment Strategy solely on account of cost. The assessment of potential alternatives as presented in APP-044 is therefore sound and in accordance with the relevant European Commission guidance Managing Natura 2000 sites The provisions of Article 6 of the Habitats Directive 92/43/EEC – November 2018.

Question Number	Question to:	Question	Highways England Response
4. Biodiversity			
2.4.10	Applicant	Further to your response to the RSPB's written representations in [REP2-014] please comment on the RSPB's comments [REP1-035 and REP3-060] that the derogation tests must be applied sequentially and that compensatory measures cannot be used as a justification for the scheme.	As outlined in the Applicant's comments on RSPB's deadline 3 submission [REP4-007], the HRA derogation tests were undertaken sequentially. Therefore, the assessment of alternative solutions was undertaken first, followed by the IROPI test, and finally the consideration of compensatory measures. The IROPI test did not take the suite of compensatory measures for the SPA into account. The replacement land does not form part of the suite of compensatory measures for the SPA. Therefore, Highways England can confirm that the HRA derogation tests were undertaken sequentially, and that the suite of compensatory measures were not used as a justification for the Scheme, as set out in the Habitats Regulations Assessment Stage 3-5 [APP-044].
2.4.11	Applicant	Please set out what, if any, weight has been given to the proposed Replacement Land in terms of providing biodiversity mitigation and/or enhancement. The ExA notes in the 'Applicant's comments on the RSPB's deadline 3 submission' [REP4-007] you indicate that the replacement land is a compensatory measure. If a lesser area of Replacement Land was provided then what effect would this have on the biodiversity considerations contained within the ES.	The driver for the extent of replacement land required for the Scheme is the need to compensate for the loss of registered Common Land and other open space as detailed in Environmental Statement Chapter 13: People and communities [APP-058] and Statement of Reasons Appendix C: Common land and open space report (Revision 1) [AS-005]. The replacement land also contributes to biodiversity considerations. The weight which has been given to the biodiversity mitigation and/or enhancement (and compensation) provided by the replacement land differs across the designated sites, habitats and species affected by the Scheme; this is summarised below. The proposed replacement land does not contribute to the suite of SPA compensatory measures provided by the Scheme. A description of the full suite of SPA compensatory measures is provided in the Habitats Regulations Assessment: Stage 3 to 5 [APP-044] and Statement of Reasons Appendix C: Common land and open space report (Revision 1) [AS-005]. Ancient woodland is considered to be irreplaceable habitat and impacts

Question Number	Question to:	Question	Highways England Response
4. Biodiversity			
			cannot therefore be mitigated. However, part of the compensation strategy for Elm Corner Ancient woodland (another part is habitat improvements within the remaining site), and Heyswood ancient woodland, is the translocation of the ancient woodland soils from the affected area into an area of proposed woodland planting within the replacement land. The approximate location (in Park Barn Farm) has been carefully selected as it will be close to the ancient woodland at Queen Anne's Hills and help provide linkage between that and Buxton Wood. In addition, approximately 3.5 ha of ancient woodland habitat at the former Chatley Farm replacement land will be enhanced by the removal of rhododendron, enabling a more diverse and viable woodland to establish in the long term. Therefore, the compensation strategy for impacts on ancient woodland relies heavily upon the replacement land. The mitigation/compensation strategy for impacts of the Scheme on the Ockham and Wisley Commons SSSI and LNR is focused on providing additional diverse habitats within (through the suite of SPA compensatory measures) and adjacent to the boundary of these sites. The replacement land contributes to the latter, and in combination with the suite of SPA compensatory measures, this has led to predicted residual effects of a permanent positive effect on the SSSI of large significance and a permanent positive effect on the LNR of moderate significance. Considering the extent of habitat improvement that would occur as a result of the suite of SPA compensatory measures it is unlikely that a localised reduction in replacement land area would alter the impact assessment to a permanent adverse impact on the SSSI or LNR. However, a reduction in the significance of residual positive effects of the Scheme on the SSSI or LNR could occur as a result of a reduction in replacement land, depending on the scale. The replacement land will provide a substantial part of the mitigation proposed for loss of Habitats of Principal Importance (HPIs) outside of designated sites (41.7 ha of wood pasture and parkland, of which 19.3 ha is

Question Number	Question to:	Question	Highways England Response
4. Biodiversity			
			also classified as lowland mixed deciduous woodland, will be lost as a result of the Scheme). The woodland planting and woodland enhancement areas within the replacement land are considered to be necessary mitigation for the loss of HPIs. The Scheme will currently result in a permanent positive effect on HPIs outside of designated sites. Depending on the scale and locations of any reductions, a reduction in replacement land areas (if this were associated with a reduction in woodland planting and/or woodland enhancement) could result in a prediction of either a neutral or a permanent negative effect on HPIs outside of designated sites. The provision of new habitat with improved species and structural diversity in the replacement land contributes to the mitigation of habitat loss that would occur for the following species as a result of the Scheme: bats; reptiles; breeding birds (notable bird species not including SPA qualifying species); badger and terrestrial invertebrates. However, provision of replacement land is not solely relied upon as mitigation/compensation for any of these species. It is unlikely that a partial reduction in replacement land area would alter the significance of residual effects predicted for any of these species. If the area of replacement land was reduced, then it may still be possible to re-design the replacement land to ensure the specific biodiversity benefits, such as improved connectivity and increases in area of key habitats, were still achieved. However, this would depend on the amount and location of any reduction. Also, in addition to the additional design work, further ecological assessment and consultation with stakeholders may be required to determine whether there would be any changes to the significance of residual impacts on ecological receptors as a result of the reduction in replacement land available to the Scheme.
2.4.12	Applicant	In your response to written representations [REP2-014] you state that the Proposed Scheme *"may increase recreational*	As explained in paragraphs 7.2.105 to 7.2.116 of the Habitats Regulations Assessment: Stage 2 [APP-043], the Scheme will not improve access to, or

Question Number	Question to:	Question	Highways England Response
4. Biodiversity			
		activity in the wooded fringes of the SPA and along a track already well used but will not facilitate increased public accessibility into the open heathland parts of the SPA." You provide additional clarification of this in [REP4-007]. However, please explain why increased provision for non-motorised users would not have an increased potential for increased recreational access to other parts of the SPA beyond the wooded fringes and provide a plan to indicate where the location of the public access point(s) in or adjacent to the wooded fringes of the SPA would be.	car park options for, the SPA. A supporting figure has been submitted alongside the Applicant's response at Deadline 5 showing the existing and proposed access points to the SPA, with HE document reference TR010030/EXAM/9.61. Visitors can currently gain access to the SPA via car parks on Wisley Lane (Location 1. on the submitted figure) and Old Lane (Location 5. on the submitted figure). This arrangement will not change. There are no other formal car parks available for gaining access to the SPA. Therefore, the operation of the Scheme is not expected to result in changes to the numbers of visitors to the Thames Basin Heaths SPA or the way in which visitors gain access to the SPA. The Scheme includes provision for a largely new non-motorised user (NMU) route within the SPA through Ockham Common and Wisley Common, which will run through the fringe of retained woodland for the most-part and will fall outside the existing heathland areas where the SPA qualifying species occur. This NMU route will be a direct replacement for the existing footpath/cycleway that runs along the A3 beside the SPA and currently provides an access to and from the SPA. Two other bridleways are proposed within the SPA, which were selected because these NMU routes already exist and are already signposted for use by horse riders. The new and upgraded NMU routes are shown in purple on the submitted figure as 'Proposed Public Bridleway'. The existing footway/ cycle path that runs along the A3 beside the SPA will be closed, with the access into the SPA from Elm Lane replaced by a diverted footpath (Location 4. on the submitted figure). The existing footway/ cycle path currently allows access to the SPA from the south at two existing locations on either side of the A3 (Locations 3 and 4. on

Question Number	Question to:	Question	Highways England Response
4. Biodiversity			
			the submitted figure). These two access points will be replaced with a single access point (Location 2. on the submitted figure), which will link the replacement NMU route to the existing tracks through Wisley Common. This access point will replace the existing bridleway access. The bridleway route through Wisley Common will follow the existing access track to Pond Farm which falls outside the existing heathland areas where the qualifying species occur. The access to this bridleway through Wisley Common from the north of the SPA will remain broadly the same via the replacement Clearmount bridge (Location 6. On the submitted figure). It is the utilisation of the replacement NMU route through Ockham Common and Wisley Common by existing users that is referred to in Applicant's Comments on Written Representations [REP2-014], when it is noted that recreational activity may increase within the wooded fringes of the SPA. As the access and parking will not change as a result of the Scheme, any increase in use of this NMU route would be as a direct result of visitors being drawn away from the heathland areas, or users being displaced from the existing footway/ cycle path alongside the A3. Ockham Common is currently accessed from the north via Hatchford Park bridge close to the Semaphore Tower (Location 10. on the submitted figure) and by a pedestrian crossing at junction 10 (Location 8. on the submitted figure). The access via Hatchford Park bridge will remain in place, but the pedestrian crossing will be replaced by an overbridge linking the SPA to existing common land and the replacement land at Chatley Farm (Location 9. on the submitted figure). There is no formal parking in this location, so it is considered that most recreational visitor movement across this overbridge would be travelling away from the SPA, as visitors from the formal carparks leave the SPA to cross the overbridge to visit the replacement land at Chatley Farm and return.

Question Number	Question to:	Question	Highways England Response
4. Biodiversity			
			Pond Farm and the Scout camp on Wisley Common are currently accessed off the M25 slip (Location 7. on the submitted figure). This access will be closed, and future access will be via the Ockham Common carpark (Location 5. on the submitted figure) and over Cockcrow Bridge. All access points are shown on the submitted figure. In addition to the points referred to specifically in this response, there are several additional access points to the SPA that will remain unchanged as a result of the Scheme. These are depicted as red dots on the submitted figure. Overall, the number of access points to the SPA will be reduced. This is as a result of the closure of the footway/cycle path access to the south of the SPA (Location 4. on the submitted figure), with the new NMU access being consolidated with an existing bridleway (Location 2. on the submitted figure), and also the closure of the M25 slip access (Location 7. on the submitted figure). The car park arrangements will remain unchanged. Due to access to the SPA not improving on account of the Scheme, it is predicted that the number of recreational visitors will not increase as a result of the Scheme. As the environmental works establish and mature in the years after completion, there will be a larger area for recreational visitors to explore in total as a result of the replacement land outside the SPA, which will help diffuse, and potentially reduce, the visitor pressure on the existing heathland areas within the SPA. Therefore, due to the provision of additional NMU routes away from sensitive heathland areas and the provision of replacement land outside the SPA, the recreational pressure on the heathland areas will not increase and may even reduce as a result of the operational Scheme. Due to there being no predicted increase in recreational disturbance as a result of the Scheme, there will be no adverse effects on the integrity of the SPA as a result of increased recreational disturbance. The findings of the statement to inform the appropriate assessment, with regards to recreational

Question Number	Question to:	Question	Highways England Response
4. Biodiversity			
			disturbance, have been reviewed and agreed with Natural England, RSPB and Surrey Wildlife Trust. Therefore, increased provision for non-motorised users would not have an increased potential for increased recreational access to other parts of the SPA beyond the wooded fringes because the increased provision is to areas outside of the SPA.

Question Number	Question to:	Question	Highways England Response
5. Construction			
2.5.1	Applicant	The Streets, rights of way and access plans [APP-008] depicts permissive path BW 544 running through the eastern part of the proposed construction compound on the former Wisley Airfield. Please clarify whether and how you would keep this path open during construction operations, and if not, then explain what alternative measures you intend to put in place.	Bridleway BW 544 would be kept open during construction with the path diverted to the northern edge of the red line boundary as shown in sheet 2 of the temporary works drawings submitted with the DCO application [APP-015]. Short-term temporary closures of this diverted path may be required for limited operations such as works to Elm Lane. Advanced notice of such closures would be signposted locally.
2.5.2	Applicant	Please provide illustrative layout plans for each of your proposed construction compounds, to include an explanation of the full range of activities that would take place at each of these compounds. With respect to the proposed construction compound at the former Wisley Airfield please justify your reasoning for its exact location within the overall former Wisley airfield site and advise:	The details of how the construction compounds will be used have not yet been developed in detail, as this is a matter for detailed design. Information on the selection and use of compounds, as it was known at that time, is given in the Environmental Statement (Chapters 1-4) [APP-049], paragraphs 2.7.3 to 2.7.7. The compound at Wisley Airfield was proposed to support an area for the construction of the new Wisley Lane overbridge close to Elm Lane which would facilitate materials storage and access to the new bridge site. The compound was also identified as a suitable location for topsoil storage as it would not require the loss of existing vegetation. The worksite for the Wisley Lane structure shown in blue in Sheet 2 of the 2.10 Temporary Works Plans [APP-015] has been located on existing hard standing within the airfield, so that it is close to the location of the Wisley Lane bridge works whilst remaining outside the extent of the adjacent common land and SNCI woodland. The greater part of the area surrounding this, indicated in green on the Temporary Works Plans, is intended for top-soil and materials storage.

Question Number	Question to:	Question	Highways England Response
5. Construction			
			To locate the construction compound elsewhere on the Wisley Airfield would require vehicles to travel further to reach it, necessitating additional vehicle miles for construction vehicles. The site location has also been chosen at the perimeter of the site allocation for Wisley Airfield in the Guildford Local Plan, in order to minimise disruption should a planning permission be granted during the construction period for the M25 junction 10/A3 Wisley interchange improvement works.
		a) Precisely where it is expected topsoil and other materials would be stockpiled within the compound?	In relation to the Wisley Lane structure worksite and Wisley Lane topsoil storage area, a topsoil bund will be placed along the north-eastern boundary whilst allowing sufficient room for BW 544 to be diverted, which will provide noise mitigation for the residents of Elm Lane. The remainder of the topsoil will be placed as far to the south of the plot as possible. A processing plant will be located adjacent to southern stock piles to grade and mix earthworks materials for reuse on site. This has also been placed to the southern extent of the site to minimise disruption to the residents of Elm Lane. The remaining central area will be used for storage of materials such as sheet piles, drainage materials, telecommunications materials, formwork. The specific materials stored in this area and their durations of storage will vary dependent on the phase on the construction works. There will also be some staff welfare facilities provided in this area, typically closer to northern bunds.
		b) What the expected duration would be for the placing of topsoil and other materials within the stockpile?	The expected duration is for the duration of the construction period of the Scheme, as a support area to the overall construction of the Scheme from December 2020 to September 2023, as defined in the Environmental Statement Chapter 1 to 4 [APP-049], section 2.7.26 to 2.7.50.

Question Number	Question to:	Question	Highways England Response
5. Construction			
		c) How long it is expected that it would take to remove the stockpiled topsoil and other materials from the compound?	It is estimated that it would take two months to remove the materials that will be stored within the Wisley Airfield compound.
		What measures would be used to mitigate for the potential generation of noise and dust in order to safeguard the living conditions of the residents of Elm Corner? Please confirm how all of these matters would be secured in the dDCO.	As set out in the Applicant's Deadline 2 Submission - 9.19 Applicant's Comments on Written Representations [REP2-014], under Requirement 3 of the dDCO [APP-018] a Construction Environmental Management Plan (CEMP) is to be approved by the Secretary of State, following consultation with the relevant planning authority before the authorised development, or the relevant part of it, may commence. Measures included in the CEMP will include measures to control noise, air and dust, and light pollution.
2.5.3	Applicant	Assuming the potential for there to be some overlap between the construction phases for the Proposed Development and the redevelopment of the Wisley Airfield, have your submitted ES and TA fully assessed the cumulative and/or in-combination effects for traffic, air quality, habitats and protected species and noise.	With regard to the cumulative effects assessment within the ES [APP-061], cumulative effects between the Scheme and 'other development' should only be assessed where the other development is "reasonably foreseeable" and "committed" in line with the guidance in DMRB Volume 11, Section 2, Part 5 HA 205/08. Sufficient depth of information is also required in order to assess with precision the respective environmental impacts which may combine with those of the Scheme. There is no live or permitted planning application for the Wisley Airfield Development and therefore assessment has instead been undertaken on the basis of the information associated with the Site Allocation A35 in the Guildford Local Plan. As an adopted site allocation, this is viewed to be foreseeable and committed. However, inherently the information provided alongside a site allocation concerning environmental impacts and management, is to a lesser level of depth than would be required alongside a planning application, so a higher-level approach is required to the

Question Number	Question to:	Question	Highways England Response
5. Construction			
			assessment of cumulative effects compared to that which would be undertaken for a detailed planning application. To compensate for the lack of construction information, the cumulative effects assessment in the ES for Site Allocation A35 has been undertaken assuming a worst-case scenario, that both schemes would be constructed concurrently. Cumulative effects with regard to Air Quality, Biodiversity and Noise and Vibration in Table 16.7 of APP-061 are estimated based on the observed impacts in the preceding topic chapters, available information alongside the site allocation and professional judgment. It is noted that, in the ES, the cumulative effects assessment during the construction phase, has been undertaken at a high-level due to the absence of detailed traffic and other environmental information. However, it was considered, that due to the scale of the site allocation, and the fundamental implications of the development for the Scheme, that it was more appropriate to include the development as such and assess on the basis of approximate information, than to not include Wisley Airfield from the assessment at all. With regard to the Transport Assessment, as there is no live or permitted planning application, there is insufficient information available on the construction activities associated with delivery of the Wisely Airfield development and their timings, as well as likely construction traffic generation, to enable a meaningful cumulative assessment of its construction impacts in combination with the Scheme to be undertaken. So, this has not been done. The traffic modelling deals directly with vehicle numbers rather than broader environmental effects and therefore requires more precise information than the assumptions which have informed the cumulative effects assessment in the ES. It will be the responsibility of the promotor of the Wisley Airfield development to provide a cumulative construction traffic impact assessment when they

Question Number	Question to:	Question	Highways England Response
5. Construction			
			submit a planning application. This will need to consider appropriate mitigation measures if necessary.

Question Number	Question to:	Question	Highways England Response
6. Flood Risk, Drainage & Water Environment			
2.6.2	Applicant	Please comment on the EA being unwilling to agree under the terms of the DCO to the disapplication of the need to apply to the EA for Water Impoundment Licences under the Water Resources Act 1991 [see Appendix A of REP3-026], and the EA's updated position on this matter as detailed in paragraph 1.4 of [REP4-047]?	We remain unclear about why the impoundment licencing process cannot be disapplied. This position runs counter to the approach that the Environment Agency has taken to other permissions required for the Scheme. However, we have had productive pre-application discussions with the Environment Agency Impoundment Licencing team. A very useful outcome of these has been agreement (at a meeting on 7 February 2020) that a licence would not be required for Bolder Mere, assuming the Scheme does not modify structures controlling the level of water in the lake. There are structures associated with the Scheme beyond Bolder Mere with the potential to change water levels within watercourses, as shown in TR010030/EXAM/9.68, which is submitted at Deadline 5 alongside this document. These are either modifications to existing culverts, or culverts on minor watercourses. We recognise the potential sensitivity of water features in the Ockham and Wisley Commons SSSI to the implementation of some of these structures. However, our view is that they can be designed and implemented in way that will not increase impoundment, and hence will not require a licence. We do remain concerned about the potential effect of a 4-6 month application period on the Scheme programme, should an impoundment licence be required. We will engage with the Environment Agency early in detailed design, when establishing design principles for the structures beyond Bolder Mere. These principles will build upon those set out in paragraph 5.4.9 of the Water Framework Directive Assessment Report [APP-045]. They should ensure impoundment is avoided and licences are not required.

Question Number	Question to:	Question	Highways England Response
7. Historic Environment			
2.7.1	Applicant	Figure 3 of the Appendix 11.2 Archaeological Desk Based Assessment [APP-122] and also para 1.2 indicates the SAM comprising the late Roman bath houses at Chatley Farm (1005923) as being located within the Site Boundary for the Proposed Development. This is indicated as being adjacent to the River Mole. However, this would appear to be some distance outside the red line boundary for Proposed Development as indicated on the Scheme Layout Plan submitted at D1 [REP1-007] and the Works Plans [APP-007]. Please can you confirm whether or not the Chatley Farm SAM lies within the scheme boundary?	When the desk-based assessment was prepared, the land parcels on which the late Roman bath-house is located were included in the ecological compensation land. Following reviews of the requirements for compensation land and the potential impacts to the scheduled monument, those parcels of land were removed from the Scheme boundary. The scheduled monument is no longer within the DCO boundary.
2.7.2	Applicant	Please indicate which parts of the Grade II listed building Westwood House East and West Lodge (1191810) lie within the Scheme red line boundary?	The Westwood House listed buildings lies adjacent to, but not within the Scheme boundary at the junction of the A245 and A3.
2.7.3	Applicant	The Heritage Gazetteer [APP-121] refers to the Grade I listed Church of St Mary the Virgin (1378241). Please confirm that this is the Grade I listed building referred to in paragraph 11.7.11 of ES Chapter 11 [APP-056] and please confirm whether it is located in Church Rd, Byfleet and whether or not it lies within the 500m Study Area buffer	The Grade I listed St Mary the Virgin church is located on Church Road, Byfleet, and is the one identified in paragraph 11.7.11 of Environmental Statement Chapter 11: Cultural heritage [APP-056]. It is within the 500m Study Area buffer.
2.7.6	Applicant	Please set out your timescales for the submission to SCC of an Archaeological Written Scheme of Investigation (WSI) and for the delivery of the approved WSI and justify your reasoning.	Work to prepare a draft overarching Archaeological Written Scheme of Investigation (WSI) will begin in spring 2020, in consultation with Historic England and Surrey County Council. It is not possible at this stage to set out timescales for submission of the WSI to SCC. The reasoning for this is to allow a comprehensive WSI to be developed, addressing all the requirements of the Outline Construction Environmental

Question Number	Question to:	Question	Highways England Response
7. Historic Environment			
			Management Plan Rev 3 [REP4a-004] and Register of Environmental Actions and Commitments (Revision 1) [REP2-005].

Question Number	Question to:	Question	Highways England Response
8. Landscape and Visual Impact			
2.8.1	Applicant and LAs	In RHS Wisley's RR [RR-024] and in [REP4-049] reference is made to the possible loss of redwood trees close to the boundary due to tree root impact and this issue not yet being resolved. Please comment on the current situation in regard to your assessment of this as in [REP2-014, page 85] you refer to tree root surveys *"still being analysed".*	No work will be done within the area of the structural root zone of the trees surveyed (see Deadline 3 Submission - Appendix 8 - A3 Ockham Alignment Options Assessment [REP3-059]) and measures, including fencing, will be put in place to ensure that the root zones are protected during construction. However, works such as earthworks for the carriageway widening and kerbing, will still be needed within the verge owned by the Applicant. In order to ensure that there is no effect on the structural root zone the Applicant will not be replacing the boundary fence between the Royal Horticultural Society (RHS) and strategic road network, as this would infringe upon the structural zone of the roots. The relevant Scheme works can be carried out without damaging these trees. To give RHS assurance on this point the Applicant has included provision to secure these works in Requirement 18 within the latest revision of the draft Development Consent Order (TR010030/EXAM/3.1 (Revision 2)), submitted alongside this document at Deadline 5. A drawing showing the structural root zones of the relevant trees, in relation to this requirement, can be found in the drawing forming document TR010030/EXAM/9.66. There is no need to make any other changes to the dDCO since even if it were necessary to re-position the proposed new carriageway on the A3 (incorporating the fourth lane) using some of the land currently forming the central reservation, this can be accommodated within the limits of deviation shown on the Works Plans (Revision 1)[AS-003].

Question Number	Question to:	Question	Highways England Response
8. Landscape and Visual Impact			
2.8.2	Applicant	Please provide into the Examination a full copy of the '*Targeted non-statutory consultation'* document, an extract of which is provided in Appendix E of [REP4-040].	This document has now been provided to the ExA in the Applicant's Deadline 5 submission, with document reference TR010020/EXAM/9.62.
2.8.4	Applicant	Please provide into the Examination a copy of the guidance in DMRB Vol 11 Section 3 Part 5 'Landscape Effects' that is referred to in your response to the ExA's First Written Questions [REP2-013].	This document has now been provided to the ExA in the Applicant's Deadline 5 submission, with document reference TR010020/EXAM/9.63.
2.8.5	Applicant	Have the effects on local residents of operational lighting been adequately assessed? Please include reference to where this information is provided.	The assessment of operational lighting has been taken into account generally within the landscape and visual impact assessment, based on levels of vegetation between receptors (and land form if applicable) and operational lighting. Section 9.8 of Chapter 9 Landscape of the Environmental Statement [APP-054] details potential impacts upon visual receptors. The M25, A3, A245 and the three junctions within the Scheme are all currently lit. The Scheme will reinstate highway lighting where these roads have been amended and the existing lighting cannot be retained, so the general extent of highway lighting will be the same. Current highway standards require a lower level of illumination than that used for the existing roads. The Wisley Lane diversion and the improved length of BOAT 525 will not be lit. The lighting proposals are set out for each element of the highway improvements in chapters 16 and 17 of the Introduction to the Application and Scheme Description [APP-002] and are shown on the Scheme Layout Plans [APP-012 and AS-004]. On this basis, the Applicant considers that the lighting proposals have been adequately assessed as part of the visual and landscape impact assessment of the Scheme as a whole, and that a separate assessment of the changes to the highway lighting was not required.

Question Number	Question to	Question	Highways England Response
9. Land use, recreation and non motorised users			
2.9.1	Applicant	Further to your response in [REP3-007] please respond specifically to the comments in paragraph 4.9.3 of the LIR [REP2-047] regarding the need for the NMU route to incorporate a split provision for cyclists and equestrian users. Please also clarify when construction details would be provided to SCC for consultation.	The proposed non-motorised user (NMU) route along the A3 corridor between Wisley Lane and Red Hill bridge has always been proposed as having a split finish in discussions with Surrey County Council (SCC) and other interest groups, as set out for Work 35 in section 17.4 of the Introduction to the Application and Scheme Description [APP-002, pages 56-58]. It will have a hard surface suitable for road cyclists and a softer, unsealed surface suitable for equestrians, with pedestrians and off-road cyclists able to use either surface. The NMU route alongside the Wisley Lane diversion will have a surface suitable for all user groups and the adjacent Wisley Lane carriageway will also be available for road cyclists to use. The NMU route north of Red Hill bridge will be a shared surface past the end of Redhill Road and will then follow the private means of access to Seven Hills Road (South); the access carriageway will provide the sealed surface and the verge will provide the soft surface. Construction details for each of the various parts of this NMU route and the associated bridges will be prepared during the detailed design, in accordance with Requirement 5 of the dDCO [REP2-002]. These details will be prepared along with other details concerning the new and amended elements of the local road network and will be provided to SCC as local highway authority as part of the detailed design process. As noted in Applicant's comments on Joint Local Impact Report (Rev 0) [REP3-007] (in item NMU2), the arrangements for SCC's involvement in finalising the detailed design will be included in a separate side agreement with SCC.
2.9.2	Applicant	REP1-009 states that Ockham Village Green is a low sensitivity receptor. Could you explain why the village green has been classed as being of low sensitivity?	The sensitivity for receptors for the people and communities' assessment has been based on DMRB guidance (Volume 11 Section 2 Part 5), best practice

Question Number	Question to	Question	Highways England Response
9. Land use, recreation and non motorised users			
			and knowledge, which is presented in Table 13.3 of Environmental Statement Chapter 13: People and communities [APP-058]. As stated in section 13.5.4 of the People and Communities' chapter, the sensitivity of receptors is determined by their vulnerability to change and their capacity to cope with changes. Table 13.3, states that a low sensitivity receptor has low vulnerability to change and can easily absorb changes due to infrequent use of the resource for the following (or similar) reasons: • Resource is infrequently used; and • Reasonable alternative facilities, access routes or opportunities available. In this instance, the similar reason for the sensitivity is related to the condition and character of the village green. The village green is currently densely wooded with a high proportion of Scots pine, largely indistinguishable from the adjoining extensive open space woodland. It does not afford the range of recreational opportunities of a traditional village green and therefore the village green has been classed as a low sensitivity receptor.
2.9.3	Applicant	The ExA notes your response to question 1.1.16 in [REP2-013]. However, Chapter 13 of the ES [APP-058] refers to the assessment of magnitude being based on a bespoke set of criteria which have been used to assign a level of significance to effects arising from the impacts to community land and facilities. What are these criteria?	The bespoke criteria for the magnitude of impact for land take on community assets is presented in table 13.8 (and is replicated below) in Environmental Statement Chapter 13: People and communities [APP-058]. Magnitude: Criteria Major (adverse): Loss of majority of the community land available (>50%), loss cannot be replaced in or near to study area. Moderate (adverse): Loss of community land available (> 25% but <50%) so as to reduce the enjoyment of people using the community facility. Loss of land to be replaced near to

Question Number	Question to	Question	Highways England Response
9. Land use, recreation and non motorised users			
			<table><tr><td></td><td>the study area.</td></tr><tr><td>Minor (adverse)</td><td>Small loss of community land take (<25%) is required which would affect enjoyment of people using the community facility.</td></tr></table>
			As presented in the table, to determine the magnitude of impact, the quantitative percentage needs to be calculated. For example, to determine the magnitude of impact as 'Minor adverse', the land take would have to be less than 25% of the total land. The bespoke criteria for the magnitude of impact for amenity of community assets is presented in table 13.10 (below) in Environmental Statement Chapter 13: People and communities [APP-058]. As presented in the table, to determine the magnitude of impact, the quantitative percentage needs to be calculated. For example, to determine the magnitude of impact as 'Minor adverse', the land take would have to be less than 25% of the total land. The bespoke criteria for the magnitude of impact for amenity of community assets is presented in table 13.10 (below) in Environmental Statement Chapter 13: People and communities [APP-058]. <table><tr><th>Magnitude</th><th>Criteria</th></tr><tr><td>Major</td><td>Substantial and permanent changes in environmental amenity for a large number of people</td></tr><tr><td>Moderate</td><td>A substantial change to a modest number of people's environmental amenity or a moderate change in many</td></tr></table>

Question Number	Question to	Question	Highways England Response
9. Land use, recreation and non motorised users			
			<table><tr><td></td><td>people's environmental amenity. Impacts can be temporary or permanent but do not significantly affect the overall functioning of the land use in the longer term.</td></tr><tr><td>Minor</td><td>A detectable but non-material change to environmental amenity for a small or large number of people. Changes might be noticeable, but the beneficial or adverse impacts fall within the range of normal variation.</td></tr><tr><td>Neutral</td><td>Changes that are unlikely to be noticeable (i.e. well within the scope of natural variation).</td></tr></table> As presented in the table, a description is used to assess the value for the magnitude. For example, to determine the magnitude of impact as 'Minor', the amenity would have to be "…*detectable but non-material change*…".

Question Number	Question to:	Question	Highways England Response
10. Noise, vibration, dust and lighting			
2.10.1	Applicant	Please explain the rationale for retaining a concrete surface on the mainline carriageway through Junction 10 rather than replacing that surface with a quieter road surfacing material.	The M25 mainline pavement scope included the following: • Widening of the M25 for both clockwise and anti-clockwise carriageways onto the respective verges to allow for new slip road tie-ins at Junction 10; • Evaluation of existing mainline lanes and hard shoulders in both directions where the Smart Motorways Programme (SMP) All Lane Running (ALR) will be implemented by converting the hard shoulder into a live running lane through Junction 10. It is not Highways England's policy to overlay an existing concrete pavement when providing All Lane Running in the Smart Motorway Programme. No allowance was made for the surface treatment of the concrete mainline carriageway on the M25 and only joint treatment (replacing joint sealant) was proposed during the preliminary design, so surface treatment of the M25 mainline running through J10 is not being considered.
2.10.2	Applicant	Please clarify whether you intend to use acoustic fencing along any sections of the proposed construction compounds. If not, then justify your reasoning as to why such fencing should not be provided.	At this stage of the project, decisions on noise mitigation for compounds have not yet been taken, the Outline Construction Environmental Management Plan [AS-020] and Register of Environmental Actions and Commitments [REP2-005] secures a number of mitigation measures. As further detail of the layout and operations within compounds become available the need for noise mitigation will be reviewed. This will be done in consultation with the local planning authority as part of the Section 61 consent process. Mitigation measures that will be considered earthworks bunds where space allows or where space is constrained noise fencing products such as echobarrier will be used on the edge of the compound.
2.10.3	Applicant	With reference to your response to FWQ 1.10.2 [REP2-013] and the surfacing plan contained within [REP2-017] please confirm that this is the surfacing	The road surfacing design used in the noise assessment is explained in section 6.6.12 and Table 6.21 of Environmental Statement Chapter 6: Noise and Vibration [APP-051]. The road surfacing assumptions used in the road traffic noise

Question Number	Question to:	Question	Highways England Response
10. Noise, vibration, dust and lighting			
		design on which the noise assessment in the ES has been based.	modelling were consistent with those stated in Applicant's Response to Written Questions [REP2-013] item 1.10.2 and Plans Detailing Road Surfacing [REP2-017] in that: • Low noise road surfacing was modelled on the A3 between Ockham Interchange and junction 10; • Low noise road surfacing was modelled on the A3 between junction 10 and the Painshill Interchange; • Concrete road surfacing was modelled on the M25, including through junction 10; • Hot Rolled Asphalt (HRA) was modelled on the A3 bridge through junction 10; and • Low noise road surfacing was modelled on the A245. The road surfacing assumptions used in the noise modelling differ from REP2-017 at some locations as described below: • The junction 10 roundabout and slip roads were modelled as concrete rather than a low noise road surface as shown in REP2-017. Modelling a concrete road surface would have increased the noise levels predicted close to junction 10 compared with the REP2-017 design, therefore the assessment was more conservative than shown in REP2-017; • The proposed Wisley Lane diversion was modelled as HRA rather than a low noise road surface as shown in REP2-017. As the modelled traffic speed on this road was below 75 km/h, DMRB LA111[7] advises that the effect of this would be negligible as the same acoustic correction would

[7] DMRB LA111 (2020) Appendix A2, 7b available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/LA%20111%20revision%201%20Noise%20and%20vibration-web.pdf

Question Number	Question to:	Question	Highways England Response
10. Noise, vibration, dust and lighting			
			be applied to HRA and low noise road surfaces at speeds below 75 km/h, therefore the conclusions of the noise modelling would be unchanged. • The slip roads at the Painshill Interchange were modelled as a mixture of low noise road surfacing and HRA, whereas REP2-017 shows the entirety of the slip roads being laid with low noise road surfacing. In this regard, the noise assessment predicted slightly higher road traffic noise levels at sensitive receptors close to these slip roads than if modelled using the REP2-017 design.

Question Number	Question to:	Question	Highways England Response
11. Pollution, contaminated land, geology and ground conditions			
No questions regarding Pollution, contaminated land, geology and ground conditions were raised within the Examining Authority's Second Written Questions.			

Question Number	Question to:	Question	Highways England Response
12. Socio-Economic impacts			
2.12.5	Applicant and WPIL	What degree of overlap is there likely to be between the construction phases for the Proposed Development and the airfield's potential redevelopment were the former to be consented and the latter to be granted planning permission?	There have been constructive and extensive discussions with WPIL on this matter as there may well be an overlap as regards construction phases but at present there is no planning application before Guildford Borough Council in respect of the airfield; therefore the timing is not certain. Nonetheless, the Applicant is willing to accommodate WPIL's development in so far as it can without prejudicing the timely delivery of the DCO scheme. Detailed heads of terms for an agreement with WPIL were provided to WPIL on 31 December 2019, as detailed in the Applicant's response to ExAWQ 2.16.6 below. The primary purpose of the agreement envisaged to facilitate the construction of both schemes in a timely manner. In particular, this concerns WPIL making use of the same construction access that the Applicant will establish for the Wisley Lane diversion, from which WPIL would also like to form both a construction and permanent access for their redevelopment scheme. This will require certain measures to be taken by the Applicant as regards the location of utilities to ensure that no subsequent diversions will be required through the creation of a junction to access the Wisley Airfield development. The heads of terms are intended to give reassurance to WPIL in regard to their concern about the vacation of the Wisley Lane diversion compound following the completion of the Scheme. The heads of terms also contain other provisions as part of a co-operative approach including as regards survey access, tree protection and so far as practicable, minimising conflict with a suitable alternative natural green space (SANG) likely to be provided by WPIL pursuant to its re-development scheme.
2.12.8	Applicant, GGLW and the owner of	a) Further to the meeting that took place between the Applicant, GGLW and the owner of Court Close Farm on 6 February 2020 to discuss an 'alternative solution' for access to the Heyswood	A full response to ExQ 2.12.8 has been provided in the document TR0130030/EXAM/9.64 *'Update on discussions around the Girlguiding Greater London West Alternative Access'*, submitted alongside this document at Deadline 5.

Question Number	Question to:	Question	Highways England Response
12. Socio-Economic impacts			
	Court Close Farm	campsite and Court Close Farm [paragraph 2.2.1 of REP4-010], please provide an update on how discussions have progressed since the 6 February meeting.	
		b) For the Applicant – Should an alternative solution be agreed upon between yourself and the GGLW and the owner of Court Close Farm, how do you consider any such alternative solution might be progressed within the time remaining for the examination of this NSIP application? In replying to this question please advise if a change were to be made to the submitted application, whether this could be progressed without the CA Regulations being engaged.	A full response to ExQ 2.12.8 has been provided in the document TR0130030/EXAM/9.64 *'Update on discussions around the Girlguiding Greater London West Alternative Access'*, submitted alongside this document at Deadline 5.
2.12.9	Applicant, Monte Blackburn/ Euro Garages, EBC and SCC	Having regard to the proposed access for the San Domenico site, what forms of development would be suitable for this site in the event of the Proposed Development being consented, implemented and then being returned by the Applicant to the owner for re-use?	The Applicant accepts that due to the proposed alterations to vehicular access at the former San Domenico site, the current business uses would probably be rendered unviable. This is considered in the Local Businesses assessment Tables 13.38 and 13.39 of Environmental Statement Chapter 13: People and communities [APP-058], where significant adverse effects are identified on the business. The Scheme would also have significant adverse effects on the proposed development under planning application reference 2017/0524 to Elmbridge Borough Council (currently the subject of a planning appeal) as considered in the Development Land Assessment Table 13.40 and 13.41 of the same document [APP-058]. Any subsequent uses at the site would need to be

Question Number	Question to:	Question	Highways England Response
12. Socio-Economic impacts			
			commensurate to this revised access arrangement and the reduced levels of passing traffic whilst those access arrangements remain. On 14 February 2020 the Planning Inspectorate wrote to Elmbridge Borough Council, Euro Garages and Highways England stating that, having reviewed all of the submissions to date, it is not appropriate to determine the application by written representations. It has therefore been decided that there will be a hearing. This is likely to take place on 15 April 2020. The Applicant does not consider it appropriate to comment at this stage on potential future uses for the site. The process for site allocation should be led by Elmbridge Borough Council as the local planning authority, in consultation with local stakeholders and according to the relevant policies of the emerging local plan.
2.12.11	RHS and Applicant	For the purposes of drawing conclusions from the attitudinal survey undertaken on the RHS's behalf, is it statistically legitimate to treat the 293 completed questionnaires as though they represent responses from 645 individuals [paragraph 1.15 of REP1-039]?	It is not clear from the report how the 293 group responses have been scaled up to 645 individuals. If one person responded or led the responses for each group, the responses are not statistically equivalent to 645 individuals providing their responses independently and uninfluenced by others. Furthermore, it is not possible to identify how representative the small sample (representing only 0.06% of total visits) was as the report provides little information on how they compare to the overall profile of visitors in terms of key variables such as frequency of visit, distance of journey, size of group and mode of access. These variables potentially have a significant influence on the response to the journey time, and so the representativeness of the data.
2.12.12 2.12.13	RHS and Applicant	Please comment on the following questions asked in the attitudinal survey [Appendix A within the note prepared by Hatch Regeneris [REP1-039]] in terms of exhibiting any statistical bias and/or ambiguity:	

Question Number	Question to:	Question	Highways England Response
12. Socio-Economic impacts			
	Applicant and RHS	Question 4 – could this question be subject to statistical bias as there is no neutral type response, 'reasonable', 'ok', with 'unsure' not be comparable with reasonable or ok?	Yes, question 4 is plainly subject to statistical bias as it does not present an opportunity for a neutral type response. The scale from 'Quite challenging' – 'Not very easy' – 'Reasonably easy' – 'Very easy' does not have a mid-point (neutral point) as there is a difference between 'reasonably easy' and 'easy', as well as 'not very easy' and 'easy'. The scale provides a view of the respondent's perception of the ease of journey to the garden but does not cover the journey from the garden. 'Unsure' does not represent a measure of how a respondent may perceive the ease of the current journey to/from the garden rather it presents an option for respondent to opt out of responding to the question. Indeed, 'OK' or 'reasonable' would have been more appropriate and if specified would have made question 4 unbiased. This question is designed in such a way to lead to biased responses.
		a) Question 5 i. Does this question have any real meaning as it requires respondents to be aware, as a matter of course, of the duration and/or length of the trips that they ordinarily make in travelling 'to' RHS Wisley?	The question introduces some ambiguity, as not all respondents would have an accurate grasp of the average duration of their journey to/from RHS Wisley or the trip length in miles. The terminology used in the question, referring to the Scheme as a 'diversion route' creates a negative intonation as diversions are commonly associated with road works and delays. No information pertaining to the reason for the Scheme and other benefits such as safety was mentioned, leading respondents to the assumption that the impact would cause frustration, rather than raising a more neutral question on how the respondents would feel in response to the change, given the reason for it.

Question Number	Question to:	Question	Highways England Response
12. Socio-Economic impacts			
		ii. Given the reference to 'journey to RHS Wisley' will respondents have appreciated that possible additions of an 'extra 10 minutes and five miles' to their journeys would relate to the duration/length of round trips and not just to the journey to the gardens, as could be implied by the sole reference 'to'? Could the absence of a reference to 'from' as well as 'to' affect the weight that should be attached to the responses to this question?	The continuous reference in the survey to journeys 'to' Wisley makes it unlikely that respondents would relate the question to a round trip. Other questions relating to journey times preceding question 5 also reference journeys 'to RHS Wisley' only (including question 3 which provides journey time options relating to a one-way journey to the RHS garden). This continuous reference focuses the respondents on a single leg of the journey to the garden and there is no reason to suppose that respondents would have appreciated that possible additions of an 'extra 10 minutes and five miles' to their journeys would relate to the duration/length of round trips and not just the journey to the gardens. This would be likely to affect the weight the respondents attached to the delay as they would have specified a level of frustration in relation to an additional 10 minutes being added to a one-way trip to the garden. Basing forecasts on the response to this question is likely to overestimate any likely reduction in visits and any economic impact estimated on this basis would be overstated. Furthermore, if responses were obtained in groups as suggested, with RHS providing assistance during the survey, there could be inconsistency with the responses as different groups may have different understanding on the interpretation of the question. It is unclear how the question was interpreted or whether it was interpreted consistently across the respondents. In summary, very little weight, if any, should be attached to the responses to this question in the RHS survey.
		b) Question 6 – could the format for this question be subject to any statistical bias with the neutral type answer being worded 'unsure' rather than something like 'no effect'?	The term 'unsure' provides an option for respondents to opt out of responding to the question. The response 'no effect' is covered by 'definitely not'. However, the probability categories 'probably yes' and 'probably not' would lead to a bias due to lack of clarity of definitions; 'probably yes' would mean different things to different people and similarly 'probably not'. Therefore, the response options available may

Question Number	Question to:	Question	Highways England Response
12. Socio-Economic impacts			
			lead to ambiguity or bias.
		c) Question 7 – what weight can be attached to the responses made to this question, given that respondents would have needed to undertake a calculation to determine any percentage reduction in visits made by them rather than expressing a reduction in the number of visits made as a simple whole number, ie 1, 2, 3, 4 etc?	The presentation of the question seems likely to have reduced the accuracy of responses as percentage change is not a typical way for people to consider the level of visits they make and would need intermediate calculations. It would have been useful to relate the responses to question 7 to the response provided to question 1. Considering that 'at least once a week' = at least 52 times a year, twice per month = 24 times a year, once every 3 months = 4 times a year, then reduction in number of visits could have been expressed as: • 1 less journey a year (equivalent of up to 30% less for respondents visiting the garden 'once every 3 months') • 2 fewer journeys a year • Between 3 and 5 fewer journeys a year • Between 6 and 10 fewer journeys a year • Between 11 and 20 fewer journeys a year • 21+ fewer journeys a year (equivalent of above 50% less for respondents visiting the garden 'at least once a week')
		d) Question 8 – is the wording of this question meaningful, given that the predicted increase of '12 million additional vehicle miles' travelled is not set within the context of either a specified time period or the overall number of vehicle miles travelled by visitors to RHS Wisley during whatever the relevant time period is for the purposes of answering this question?	The responses to this question are likely to have limited weight, as the terminology is relatively specialist and it is very difficult to grasp the significance of the additional vehicle miles without any context in terms of reference vehicle miles travelled (and therefore the percentage change involved) and the time period for consideration to the analysis.
		With respect to the potential for there to be a	The strategic traffic model assigns traffic to different routes on the road network based on the lowest cost option for the user. The user cost is calculated by applying values of time to journey times and adding vehicle running costs for the journey distances to derive total user costs for alternative routes. The model has

Question Number	Question to:	Question	Highways England Response
12. Socio-Economic impacts			
		lengthening of travel distances and times for visitors journeying to and from RHS Wisley: a) When making travel route planning decisions and/or decisions about whether to make a journey or not, is equal weight applied to the time taken and the distance travelled or is greater weight given to one of these factors compared to the other? If unequal weight is attributed to the time taken or the distance travelled please identify the proportion of weight that is applied to each factor and explain why that is the case.	been calibrated using standard values of time and vehicle running costs, consistent with those published by the Department for Transport in the 'TAG Databook'[8]. The values differ by vehicle type and by journey purpose, but for example the base year commuter trips are assumed to incur costs of approximately 20 pence per minute and 6 pence per km. Consequently, time is significantly more important than distance in determining the choice of route, such that even at speeds as high as 100km/h such trips are twice as sensitive to time changes as they are to distance changes. As speeds reduce, the modelled sensitivity of route choice to time, as opposed to distance, increases.
		b) In paragraph 3.52 of the Motion Transport Assessment of May 2016 prepared for the RHS [REP2-040] the average duration of the visitor stay at RHS Wisley is identified as being between 3 and 4 hours. Given that average duration of stay, how significant would a predicted travel time increase of up to 10 minutes be to visitors making a round trip with an origin to the south of RHS Wisley when they were making decisions as to whether or not to visit these gardens?	The additional journey times for visitors to RHS Wisley Garden due to the Scheme compared to those without the Scheme is dependent on whether visitors to and from the A3 south choose to travel via Ripley, as indicated by the traffic modelling, or follow the signposted route via junction 10. The Applicant estimates that the additional return journey times due to the Scheme during the interpeak period will be between approximately 5 extra minutes if visitors choose to route via Ripley and an extra 7.2 minutes if they chose to follow the signposted route via junction 10. Indeed this small increase which accounts for a small proportion of duration of the visit is insufficient to materially influence peoples' decisions on whether to visit the Gardens and consequently, will have a negligible economic impact on RHS Wisley.
		c) Has the RHS' attitudinal survey and the subsequent evaluation of its results adequately	The RHS survey and subsequent evaluation of responses has not adequately considered any additional journey times in the context of the full duration of the

[8] The Department for Transport 'TAG Databook' (last updated October 2019) is available online at https://www.gov.uk/government/publications/tag-data-book

Question Number	Question to:	Question	Highways England Response
12. Socio-Economic impacts			
		evaluated the relative significance of the duration of stays at RHS Wisley relative to the increase in journey times predicted to arise were the Proposed Development to be consented and implemented?	visit which includes the duration of stay at RHS Wisley. Indeed, longer visits which have the increase in journey times accounting for a small proportion of total journey time (including duration of stay at the garden) would be less sensitive to a behavioural change than shorter visits. The survey or its evaluation does not consider the link between the duration of stay at the garden and the increase in journey time when assessing the impact journey time increase have on visitor behaviour response and visitor trips were the Scheme to be consented.

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
2.13.2	WPIL & SCC	Of the proportion of the traffic exiting or entering any redevelopment of Wisley Airfield (pursuant to Local Plan allocation A35) via the Ockham Park junction, please provide a projection for the traffic expected to route via the B2215/High Street Ripley, having regard to the trip distribution shown in Figure 2.2 on page 5 of REP2-052	The distribution of the origins and destinations for trips generated by the proposed Wisley Airfield development included in the Applicant's traffic modelling is informed by the Transport Assessment that was submitted with the planning application for the proposed development that was refused on appeal. The Applicant's traffic modelling indicates approximately 50% of all daily traffic generated by the Wisely Airfield development routing via the B2215 Portsmouth Road through Ripley in the 2037 without the Scheme scenario, and approximately 34% with the Scheme. Therefore, the Scheme is anticipated to remove 16% of the daily traffic generated by Wisley Airfield development from the B2215 Portsmouth Road through Ripley. This reduction is due to the capacity improvements to the junction of Old Lane with the A3 delivered by the Scheme that allows more traffic leaving the Wisley Airfield development to access the A3 southbound via Old Lane that would otherwise route through Ripley.
2.13.3	Applicant, SCC and WPIL	The ExA notes that currently the Applicant is '… encouraging the promoter of the Burnt Common slips to progress their assessments so that the feasibility of the north-facing slips can be demonstrated …' (item 2.8.1 on page 25 of the draft SoCG between the Applicant and SCC [REP3-012]): a) When is it expected that the above-mentioned assessment will be completed by the promoter for the Burnt Common slips?	The Applicant is not aware that at present WPIL is progressing with such an assessment in connection with their scheme. However any such assessment of the Burnt Common slips would need to be fully compliant with Highways England's Project Control Process and thereby include a full option assessment that demonstrates that the Burnt Common slips represent the most appropriate solution to address the identified need, meet all DMRB technical requirements and standards and are deliverable.
		b) If the completion of the above-mentioned assessment is to post-date the closure of the Examination for this NSIP application or the assessment concludes that the provision of the	Traffic modelling undertaken by the Applicant, which does not assume the existence of the Burnt Common slips in any scenario demonstrates that, with the DCO Scheme, the B2215 Portsmouth Road can accommodate background traffic growth in combination with traffic forecast to be generated by local plan

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
		Burnt Common slips would be unfeasible, please comment on the implications that might have for the ability of the B2215 to accommodate the traffic it is predicted to receive as a consequence of the Proposed Development were it to be consented and implemented.	developments, including the Wisley Airfield development, without detriment to the operation of the local road network. An approach to a junction is generally considered to be approaching practical operational capacity when demand exceeds 85% of available capacity and likely to be exceeding practical capacity when demand exceeds 90% of available capacity. The operational performance of the junctions of the B2215 Portsmouth Road with Newark Lane/Rose Lane and with the Ockham roundabout in both 2022 and 2037 with the Scheme is set out in sections 7.5 and 7.6 and Appendices G and H of the Transport Assessment Report [APP-136]. Table 7.10 of the TA shows that the Newark Lane/Rose Lane junction overall remains within capacity with the Scheme, with an overall maximum ratio of demand to capacity of less than 90% in both 2022 and 2037. Table 7.16 of the TA shows that the B2215 Portsmouth Road approach to the Ockham roundabout has a level of service of B (Reasonable free-flow) or C (Stable flow) during the peak periods for both 2022 and 2037 with the Scheme, where level A (Free-flow) is the best and level F (Forced or breakdown flow) is the worst. This represents a considerable improvement compared to without the Scheme, where in the levels of service is F (Forced or breakdown flow) in the PM peak.
2.13.5	SCC	In the LIR [REP2-047] and REP3-036 you have referred to the volume of additional traffic arising from the implementation of the investment programme at RHS Wisley being in excess of that which is expected to necessitate the installation of the north facing slips at the Burnt Common junction, ie the occupation of the thousandth dwelling at Wisley Airfield.	Highways England understands that the 1,000 homes trigger for the Burnt Common slips is not based on a traffic impact threshold but is instead based on the financial viability of the proposed Wisley Airfield development regarding phasing, i.e. cash flow considerations for developer financial contributions towards the delivery of the slip roads. This was evident in Highways England's submission to the Wisley Airfield development appeal on suggested S.106 obligations that where put forward by WPIL.

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
		As the bulk of the traffic generated by RHS Wisley arises during the inter-peak period rather than during the AM and/or PM peak periods and it appears that it is during the peak hours that mitigation for traffic associated with the airfield's redevelopment would be most required, is it appropriate to make a comparison between the need to mitigate the effects of the airfield's traffic and that arising from visitor growth at RHS Wisley?	
2.13.6	Applicant and SCC	With respect to future projections of traffic using Old Lane, at paragraph 8.1.9 of REP2-011 reference is made to the DMRB (TD 46/97) indicating that 'new rural single carriageway roads' are suitable for carrying annual average daily traffic (AADT) flows of up to 13,000 vehicles at the opening year. As Old Lane is an existing (rather than new) rural road, which would be subject some modification under the Proposed Development, is an AADT flow of 13,000 vehicles an appropriate standard against which to assess the capacity of Old Lane to accommodate future flows of traffic were the Proposed Development to be consented and implemented?	The only reference to the capacities of rural single carriageway roads contained in DMRB is that in Table 2.1 of TA 46/97 (note the reference to TD 46/97 was in error), which refers to new rural single carriageway roads. As a rule of thumb, the capacity of a single carriageway road such as Old Lane is generally considered to be approximately 1,200 vehicles per hour in each direction (2,400 two-way), although the practical capacity is likely to be determined as much by the capacities at junctions as by the link capacity. The maximum traffic flow on Old Lane with the Scheme is forecast in 2037 to be 614 vehicles per hour in either direction and 946 vehicles per hour two-way, which is no more than half the road's capacity (Appendix A of the TA Supplementary Information Report [REP2-011], p55). Furthermore, the traffic modelling has demonstrated that the improved junction of Old Lane with the A3 included in the Scheme has more than enough capacity to accommodate forecast traffic demand, with Level of Service A, which is the best (Table 7.19 of the Transport Assessment Report [APP-136]).
2.13.7	Applicant	For the inter-peak period please provide traffic flow comparisons for the Core Scenario Do-something versus Do-minimum, in tabulated and drawn forms, similar to those shown for the AM and PM peaks in Tables 4-6 and	Please refer to Section 2 within the document 'Supporting data in response to ExA's Second Written Questions on Traffic, Transport & Road Safety' ref: TR0130030/EXAM/Volume 9.72, submitted alongside this document at Deadline 5.

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
		4-7 and Figures 4-6 and 4-7 set out in 'Traffic Forecasting Report' [REP1-010].	
2.13.8	Applicant	With respect to the predictions for RHS Wisley traffic routing via Ripley, please clarify why in the AM peak period some traffic is shown to be heading in a westerly direction (ie away from the Gardens) under the Do-something scenarios for 2022 and 2037, as depicted in Figures 2.4 and 2.12 in REP2-011, given that predicted traffic would appear to be arising prior to the Gardens being open to visitors and at a time when staff might be expected to be arriving at work rather than departing from it.	The traffic flows shown in Figures 2.1 to 2.16 of the TA Supplementary Information Report [REP2-011] represent those for the model zone called "RHS Gardens Wisley" in which the garden is located. This zone also includes Wisley golf course, a few farms and Wisley village, which contains approximately 85 households. Consequently, the traffic plots referenced will include trips generated by the households within the zone as well as reflecting RHS Wisley suppliers leaving that site. This corresponds with our ANPR survey also recording a number of vehicles arriving and leaving RHS Wisely Garden in the morning peak period (181 vehicles between 07:00 and 09:00).
2.13.9	Applicant	Had you been consulted by GBC when it was considering planning applications 16/P/00976 and 16/P/01080 concerning the investment programme for RHS Wisley [see REP3-030 and REP3-031], and having regard to the RHS's Slip Road Merge/Diverge Analysis set out in the Transport Assessment of May 2016 identifying the need for the provision of a fourth lane on the A3 within the vicinity of Wisley Lane [paragraph 7.13 onwards of REP2-040], would you have recommended that GBC secure any mitigation for the effects of the predicted additional visitor traffic on the operation of the strategic highway network. If so, what form might any such recommended mitigation have taken?	On the basis of the Transport Assessment submitted by RHS the increase in traffic as a result of the then proposed RHS development would be of more concern from a safety than a congestion point of view. In particular there is an accident cluster site at the northern end of the layby to the north of Wisley Lane where traffic from the layby and Wisley Lane joins the northbound A3. It is for an applicant to propose mitigation sufficient to offset the impact of development so it is a matter of speculation what the RHS might have put forward and whether this would have been sufficient to avoid the application having to be refused on highway grounds. Paragraph 109 of National Planning Policy Framework states "*Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe*". Highways England would have expected RHS to have offered measures to improve safety and flow on the A3 sufficient to demonstrate that the impact on highway safety was acceptable and the overall impact on the highway network

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
			was not severe.
2.13.10	Applicant and RHS	Given the assessment of the side road options, which includes 'the RHS Alternative' under the headings of 'WIS12+WIS-10+OCK04' (section 2.2.5), 'Ockham south facing slip roads' (section 4.2), 'Ockham Interchange: South-Facing Slip Roads' (section 5.3.3) and 'Amendments to WIS12' (section 6.1.2) in the Applicant's 'Scheme Assessment Report Side Roads Addendum of November 2017 [REP3-017], a document which was contemporaneous with the making of the Preferred Route Announcement in November 2017, is it reasonable or unreasonable to say that the alternative access arrangements for RHS Wisley promoted by the RHS is an 'option' that was or was not assessed prior to the submission of the application for the Proposed Development?	It is reasonable to say that the alternative access arrangements for RHS Wisley promoted by the RHS was assessed prior to the submission of the DCO application. The Side Roads Addendum [REP3-017] explains that the RHS Alternative was assessed prior to the submission of the DCO application. It is described in Section 2.2.5 and assessed in Chapters 3, 4 and 5 and summarised in the conclusion. To note that: • WIS12 refers to direct access to the A3 carriageway • WIS10 entails an overbridge from Wisley Lane over to the southeast side of the A3 and a two-way link road broadly parallel to the A3 southbound carriageway to Ockham Junction and is similar to the Wisley Lane diversion element of the Scheme. As such it is not referred to below. • OCK04 refers to south-facing slip roads at Ockham Junction In traffic terms Section 3 of the Side Roads Addendum [REP3-017] states that: • In reference to WIS12 - *this side road option has not been explicitly modelled, it is not clear how this would affect performance of the network. The additional merge point onto the A3 is considered likely to have a negative impact on both safety and operation in comparison to the other WIS side road options although it would reduce pressure on Ockham interchange.* • In reference to OCK04, *it was not evident that there are sufficient benefits to these road users to justify extending the scope of this project*

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
			to include south facing slips for this reason alone. In terms of the environmental appraisal in Section 4 of the Side Road Addendum: • WIS12 would be least preferred due to the impact on SPA/SSSI. • OCK04 was assessed against nine environmental criteria and was presented in Table 4-2 of the Side Roads Addendum [REP3-017]. The RHS Alternative was also assessed in policy terms and it was concluded that *Option WIS11 is therefore considered to offer a lower legal and policy accordance risk than Option WIS10 and WIS12* (Side Roads Addendum [REP3-017]). Accordingly, the WIS12 and OCK04 elements were rejected.
2.13.11	Applicant, SCC and RHS	Notwithstanding that SCC would not wish to promote the use of a vehicular route from RHS Wisley via Wisley Airfield and Old Lane onto the A3, as stated at Issue Specific Hearing 2 and in REP3-036, given that allocation A35 of the Guildford Local Plan 2019 requires a through route to be available between the Ockham Park junction and Old Lane, what proportion of the southbound vehicular traffic exiting RHS Wisley might route via the airfield as an alternative to either making a U-turning manoeuvre at J10 of the M25 or routing via Ripley (the B2215)?	The route for RHS Wisely traffic to the A3 via the proposed Wisley Airfield development link road and Old Lane is approximately 5 kilometres longer than the route via the B2215 Portsmouth Road through Ripley. Average traffic speeds along the B2215 Portsmouth Road are also likely to be faster than those on the link road through the proposed Wisley Airfield development, since much of the Portsmouth Road is subject to a 40mph speed limit, whereas the link road through the Wisley Airfield development is likely to have a 30 or 20 mph speed limit. Consequently, the journey distances and times from RHS Wisley to the A3 south via the proposed Wisley Airfield development will be considerably longer than via the route along the B2215 through Ripley. Therefore, it is anticipated that very little, if any, RHS Wisley traffic would route via the Wisley Airfield development link road and Old Lane.
2.13.12	Applicant	Under the Proposed Development what proportion of the anticipated additional capacity within J10 of the M25 would be absorbed by U-turning vehicles routing to or	The total volume of traffic forecast to enter J10 in the 2022 and 2037 do-something scenarios during the morning and evening peak periods (excluding the free-flow left slips) is between approximately 6,400 and 7,100 vehicles per

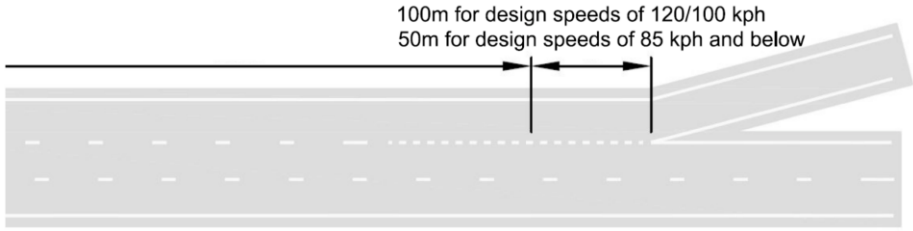
Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
		from RHS Wisley?	hour and between approximately 5,700 and 6,400 vehicle per hour during the interpeak (Derived from Appendix A of the TA Supplementary Information Report [REP2-011]). If all RHS Wisley traffic to and from the A3 south was to follow the signposted route via J10, then this would add up to approximately 120 vehicles per hour to total flows entering J10 during the morning and evening peak hours and up to approximately 160 vehicles per hour during the interpeak (Derived from Figures 2-4, 2-6, 2-8, 2-12, 2-14 & 2-16 in the TA Supplementary Information Report [REP2-011]). These flows represent approximately 1% and 2% of the total traffic through J10 during the morning and evening peak periods and approximately 2.5% during the interpeak period. Therefore, the overall flow at J10 would be increased by between approximately 1% and 2% during the morning and evening peak periods and by approximately 2.5% during the interpeak, if all RHS Wisley traffic to and from the A3 south was to follow the signposted route via J10 rather than route through Ripley. The maximum demand to capacity ratio at J10 in the do-something scenarios is 87% during the AM peak hour in 2037 (Table 7-6 of the Transport Assessment Report [APP-136]). This would be increased to approximately up to 89% if all RHS Wisley traffic to and from the A3 south was to follow the signposted route via J10 (based on 2% additional demand), rather than route through Ripley, but J10 would therefore still operate within practical capacity. This analysis is based on event day trip generation for RHS Wisley, so the impact on the capacity of J10 on a typical weekday would be significantly less than presented above even if all RHS Wisley traffic to and from the A3 south was to follow the signposted route via J10 rather than route through Ripley.
2.13.13	Applicant	Please provide: a) a definition for 'weaving' from the DMRB or any	a) The term "Weaving section" (but not the term "weaving") is defined in DMRB CD122 (relevant extracts included in TR0130030/EXAM/9.67)

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
		other relevant published highway design guidance. In answering this question please provide an extract or extracts from the DMRB or any other relevant design guidance. b) an explanation for what is meant by 'D3+' and 'D2' when reference is being made to COBALT accident rates on page 28 of [REP4-005]. c) an explanation for the phrase 'late swooping' referred to on page 29 of [REP4-005].	'Terms and Definitions' – *'The length of the carriageway between a successive merge or lane gain and diverge or lane drop, where vehicles leaving the mainline at the diverge or lane drop have to cross the paths of vehicles that have joined the mainline at the merge or lane gain.*' b) A D2 refers to an all-purpose two-lane dual carriageway (two lanes in each direction). A D3+ refers to an all-purpose three or more lanes dual carriageway (three or more lanes in each direction). c) 'Late swooping' refers to drivers who make a late manoeuvre from lane two or three to leave a mainline carriageway onto a diverge slip road. This is sometimes seen when there are queues in the signed lane for the diverge and drivers who are not prepared to queue overtake and look for a gap in traffic closer to the diverge, 'swooping' onto the slip road.
2.13.14	Applicant	The RHS in its written submissions concerning the retention of a left turn from Wisley Lane and weaving distances, for example in REP1-044, has referred to DMRB document CD122 (Geometric Design of Grade Separated Junctions) as containing relevant design standards. Under the RHS alternative would a left turn from Wisley Lane be a grade separated junction or an at grade junction with the A3, and is CD122 therefore the relevant design guidance?	Under the RHS Alternative the left turn from Wisley Lane would be an at grade junction but the DMRB CD 123 (TR0130030/EXAM/Volume 9.67) does not permit a Major/Minor junction (an at grade junction where the minor road traffic concedes priority to traffic on the major road) on to a Dual 3 lane (or by implication a Dual 4 lane) all-purpose carriageway. The design guidance CD122 (TR0130030/EXAM/Volume 9.67) 'Geometric design of grade separated junctions' is used to analyse the RHS Alternative design and this guidance has not been met in several elements of their design. CD 122 has been applied because it is the only standard that can be used where a side road intersects with a Dual 3 or more lane all-purpose carriageway. This standard has also been used to analyse the RHS Alternative against the Proposed Development.
2.13.15	Applicant,	Where there is a junction between a multi lane dual	Generally, multi lane carriageways would be required where there are high

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
	SCC and RHS	carriageway and a side road how does the number of lanes on the dual carriageway affect the propensity for weaving to take place? The answer to this question should be given in general terms and should therefore disregard any local circumstances relating to the Proposed Development.	forecast volumes of traffic. Where there is a high volume of traffic on the main carriageway diverging off the road towards an exit slip road and a high volume of traffic from a junction slip road joining the main carriageway there will be more weaving traffic and an increased risk of conflicts between vehicles and hence a likelihood of more accidents. The diagram below shows a modified (without text) figure of the possible weaving movements: (See CD122, Figure 4.7N5 (extract included within document TR0130030/EXAM/9.67)). The likelihood of accidents is increased where the volume of exiting traffic requires lane drops on the main carriageway as traffic joining from the junction slip road needs to move over several lanes to continue along the main carriageway causing more conflicts with the weaving traffic. The diagram below shows the lane drop diverge. (See CD122, Figure 4.4h).

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			

Figure 4.4h Lane drop diverge weaving section



Where a side road is a single (one lane in each direction) carriageway road and a multi lane dual carriageway to a 3+ lane (in each direction) dual carriageway, then weaving should not occur because this type of arrangement is not permitted by the DMRB.

However, where a 'side road' is a slip road leading to or from an at grade or grade separated junction then the effect on the propensity for weaving is as follows:

Table 2.13.15 Weaving Impact

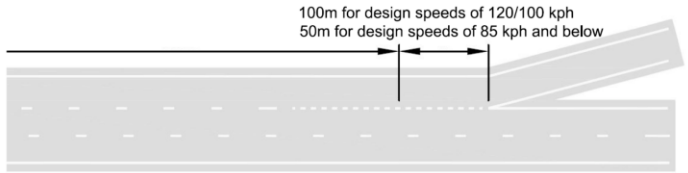
Upstream Merge type	Downstream Diverge type	Impact on Weaving
Merge Taper	Diverge Taper	Vehicles travelling in Lane 1 (the nearside lane) on the multi lane dual carriageway where possible have a tendency to weave

Question Number	Question to:	Question	Highways England Response		
13. Traffic, transport and road safety					
					across to Lane 2 and allow the vehicles to merge, this then has a knock-on effect which means that vehicles in Lane 2 weave across to Lane 3. Vehicles that then want to leave at the next downstream junction must weave back across to Lane 1, which can result in late swooping because a vehicle has not been able to weave back across to Lane 1 quick enough from Lanes 2 and 3. At the same time the merging vehicles, will seek the opportunity to weave across to Lanes 2 and 3 in order to overtake slower moving vehicles that are still in Lane 1.
				Merge Taper	Lane Drop	Vehicles travelling in the Lane 1, which leads directly to a lane drop at the next junction on the multi lane dual carriageway will have less tendency to weave across to Lane 2 because they are planning to leave at the next junction. Vehicles that are merging will have to weave across to Lane 2 if they want to continue on the multi lane dual carriageway and not leave at the next junction. Where there is 2 lane drop, vehicles in Lane 1 may have a tendency to weave across to Lane 2 to allow vehicles to merge but if a merging vehicle should wish to continue on the multi lane dual

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			

		carriageway and not leave at the next junction they would need to weave across to Lane 3.
Lane Gain	Diverge Taper	Vehicles join the multi lane dual carriageway in a dedicated lane gain. Vehicles that wish to leave at the downstream junction therefore have to weave across in to the lane gain. This results in vehicles that have just joined via the lane gain to weave across to Lane 2 and 3 to overtake the slower moving vehicles in Lane 1
Lane Gain	Lane Drop	Vehicles join the multi lane dual carriageway in a dedicated lane gain and exit at the next junction via a lane drop. Vehicles on the multi lane dual carriageway wishing to leave at the next exit will have to weave across the lanes until they are in lane 1 and vehicles that are just joining on the lane gain and wishing to continue on the multi lane dual carriageway will have to weave across to Lane 2 and 3.

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
2.13.16	Applicant	On pages 28 and 29 of REP4-005 as part of the collision assessment that has been undertaken reference is made to 20 personal injury collisions having occurred between 1 December 2013 and 30 November 2018. With respect to the data for those 20 collisions please plot on a plan where each of those collisions occurred, identifying each collision with some form of identifying reference number and provide written summaries setting out the details for each of those incidents.	The accident data for the period 1 December 2013 and 30 November 2018 are presented on a plan (drawing number RSAH-CPS-VAS--A3_Z_J10_OCK-DR-CH-0001) and in tabular form ('A3-M25 J10 to Ockham Junction Accident Data between 01-Dec-2013 and 30-Nov-2018') within Appendix A to the document 'Supporting data in response to ExA's Second Written Questions on Traffic Transport and Road Safety', ref: TR0130030/EXAM/Volume 9.72.
2.13.17	Applicant	On the day of the Accompanied Site Inspection (14 January 2020) while the visits to RHS Wisley and Elm Lane/the Former Wisley Airfield were taking place there was an incident on the M25 that was causing vehicles seeking to exit the A3 to tail back on the A3 northbound to its junction with Wisley Lane. Please provide details of the incident that was causing the tail back, ie what the incident involved, where the incident was, when it commenced and when it ended.	We have contacted the Highways England Regional Control Centre (RCC) at Godstone, from where traffic on the western quadrant of the M25 is monitored, an area which includes junction 10 and parts of the A3 approaching the junction. Recording of the traffic conditions were reviewed together with incident logs of the day, specifically around 09:45 - 10:45, which corresponds with the time that the Accompanied Site Inspection (ASI) group was crossing Wisley Lane Bridge and were in the surrounding area. There appears to have been no specific incident other that volume of traffic passing through the junction 10 roundabout and discharging onto the M25 itself that caused the tailback, and as was witnessed, it had cleared by the time that the ASI group arrived at the RHS Garden.
2.13.18	Applicant and RHS	With respect to the RHS alternative scheme [REP1-044] if a left turn from Wisley Lane onto the A3 was to be retained:	
		a) Would the available 'Lact' weaving length meet the extant published DMRB standard or would there need to be a departure from the standard for an improved left turn junction to be provided? For	The weaving length would not meet the extent [1 km] published in the DMRB CD122 (TR0130030/EXAM/Volume 9.67, paragraph 4.5). A departure from standard for the weaving length along with a number of other departures would also be required in order to fit the junction and minimise the impact on the SPA.

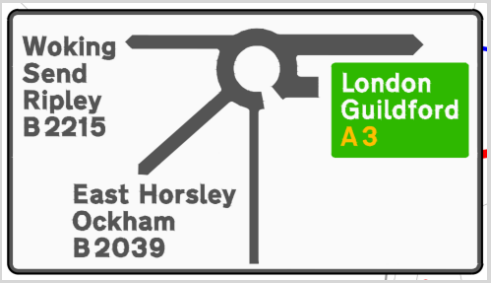
Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
		the Applicant – in responding to this question please provide any relevant extracts from the DMRB?	It is highly unlikely that such a departure would be approved.
		b) Are weaving lengths affected by the speed limit applying to an all-purpose dual carriageway?	The weaving lengths do not relate to the speed limit. The measurement of the weaving length is affected by the design speed. The calculation of the weaving length (Lact) turns upon the types of merge and diverge that are proposed. For example, the measurement is taken from the end of the merge taper (where merging traffic joins the mainline carriageway through an area forming a funnel to or flare from the mainline carriageway) and in the case of a lane drop the measurement is taken to 100 m from the tip of the nose (a paved area, approximately triangular in shape, between a connector road and the mainline diverge, suitably marked to discourage drivers from crossing it) for a design speed of 120/100 kph road or 50 m from the tip of the nose for design speeds of 85 kph and below (See CD122 (TR0130030/EXAM/Volume 9.67), Figure 4.4h). **Figure 4.4h Lane drop diverge weaving section** 
		c) With respect to the consideration of the potential for weaving to occur and whether the provision of a side road access would or would not be safe, what significance is to be placed on the time of	It would be reasonable to expect vehicles to be travelling at higher speeds on the mainline during the interpeak, which would make it difficult for slow moving vehicles to merge and weave across the lanes because of the speed differential, which would increase the risk of side swipe accidents.

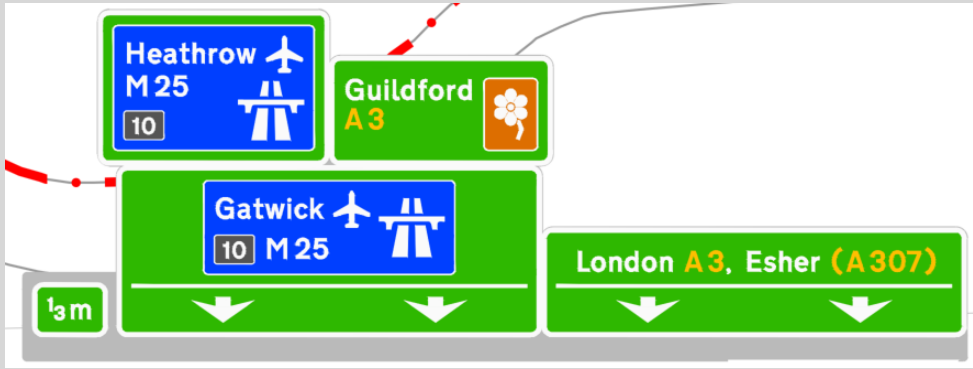
Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
		day, ie during peak or inter-peak hours, when the majority of the weaving may arise?	During peak hours the mainline traffic speeds are likely to be less but the volume of traffic would be greater, so whilst there would be less opportunity to weave across the lanes and shunt type accidents would be more likely.
		d) With respect to traffic departing from RHS Wisely, is the RHS's proposition that the majority of traffic performing a weaving manoeuvre would be off peak [page 2 of REP3-043] applicable to event days given that in Table 5.8 of the Motion TA [REP2-040] 36% of traffic is shown departing the gardens between 16.00 and 19.00 hours?	Highways England's ANPR survey recorded that 30% of all daily traffic leaving RHS Wisley towards the A3 on a non-event day does so during evening peak period between 16:00 and 19:00. Highways England does not have this data for an event day at RHS Wisley, other than that provided by RHS (Motion TA [REP2-040]). Whilst this is not a majority this is a significant proportion.
		e) For the Applicant - If a departure from standard was necessary, please explain the process for obtaining such a departure and the likelihood of such a departure being granted.	The designer is responsible for seeking a departure by first undertaking a full assessment to identify the benefits, adverse impacts and risks associated with a proposed departure. This is an iterative process of design development, which is required to refine a departure application. The assessment must include a comparison with a design that is fully compliant and, if applicable, any other non-compliant options that have been considered. This assessment information is used to support the departure application, which in order for it to be approved by the Highways England, Safety, Engineering and Standards (SES) team shall: 1) demonstrate that the technical, contractual, commercial or programme benefits significantly outweigh the adverse impacts, when compared to a compliant design; 2) present a structured risk assessment identifying long and short-term risks and any appropriate mitigation measures; 3) demonstrate how safety, environmental, sustainability, operational or other impacts have been considered and any

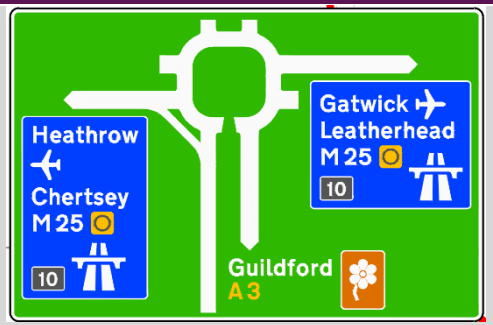
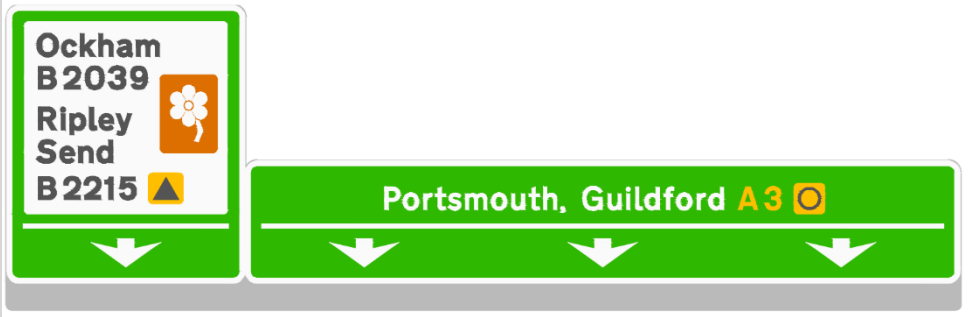
Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
			necessary mitigation works required to be implemented as a result; 4) justify the need for a departure in the light of 1) to 3) above; and 5) propose monitoring to measure the performance of the departure It is highly unlikely that a departure would be granted for a left turn from Wisley Lane because a non-compliant design, in combination with the history of accidents at this location, would be less safe than the Proposed Development which provides a compliant design for this element (See RHS's Highways and Traffic Representation with Appendices, Appendix B [REP1-044]).
2.13.19	Applicant and RHS	Should the 'RHS Alternative Scheme' be described as an option or a variant of Option 14 (the Applicant's preferred scheme), given that it appears that it is only the proposed Wisley Lane diversion together with the absence of south facing slips at the Ockham Park junction that the RHS has an objection to?	The Scheme Assessment Report [REP3-016] and the Side Roads Addendum [REP3-017] refers to the Scheme as having a series of components, such as junction 10 itself, the A3 and sections of the A3 that require alternative access as a consequence of widening the A3, such as Wisley Lane. The RHS Alternative Scheme is referred to in the Side Roads Addendum [REP3-017] as *WIS12 – RHS Gardens Wisley proposal for a direct access slip road from Wisley Lane to the A3 northbound. The proposal also includes a southern two-way link road with bridge over the A3 (WIS11) and south-facing slip roads at Ockham Junction (OCK04)*. The RHS Alternative Scheme should therefore be considered as an option to the component of the solution to the provision of alternative access to Wisley Lane. Another way to express this is that it is a sub-option to the whole Scheme.
2.13.20	Applicant and RHS	With respect to the potential for road traffic accidents to arise, comparing: a) travelling further and making a U-turning	In short, the weaving associated with the retained left turn from Wisley Lane is likely to result in a substantially greater number of road traffic accidents than the traffic making a U-turn manoeuvre at junction 10. This is the case even assuming that all RHS Wisley traffic travelling to and from the south uses the

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
		manoeuvre at Junction 10 and b) weaving associated with the use of a retained left turn from Wisley Lane which of scenarios a) or b) might be expected to give rise to the greater number of accidents and why?	signposted route. a) Highways England has undertaken accident analysis using COBA-LT covering the section of the road network used by RHS Wisley traffic to and from the A3 south, including both alternative routes, i.e. via Ripley and via junction 10. Traffic generated by RHS Wisely to and from the A3 south was manually reassigned from the route via Ripley to the route via junction 10 to enable a comparison to be made between this and the modelled situation where all RHS Wisley traffic to and from the A3 south routes via Ripley. This analysis shows that the overall accident rates are very similar for the two alternative routings of RHS Wisley traffic (0.094 accidents per million vehicle kilometres with all RHS Wisley traffic routing via Ripley compared to 0.091 with all RHS Wisley traffic following the signposted route via junction 10), indicating that there is unlikely to be any notable difference in the overall number of accidents per year were the RHS Wisley traffic to and from the A3 south to route via junction 10 instead of routing via Ripley as modelled. b) COBA-LT analysis has also been carried out for the northbound A3, using 5 year's collision data from 2012 – 2016. This shows the following current accidents rates: • Ockham to Wisley Lane: 0.06 • Merge with Wisley Lane: 0.30 • Wisley Lane to junction 10: 0.10 Comparing these accident rates to COBA-LT standard accident rates of 0.101 (Dual carriageway with three or more lanes), 0.077 (Dual carriageway with two lanes between the junction slips) and 0.063 (for a two/three lane motorway), indicates that this section of the A3 has a

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
			fairly typical accident rate along the majority of the mainline, apart from the merge with Wisley Lane, which has at least three to five times more accidents than would be typically expected, based on the COBA-LT 0.30 standard accident rate. The analysis in a) above indicates that the addition mileage, were RHS traffic to and from the A3 south to follow the signposted route via junction 10 instead of the route via Ripley, is unlikely to result in any notable difference in the overall number of accidents per year. However, in reference to b) the comparison of the current accident rate on the A3 in the vicinity of Wisley Lane with typical accident rates, suggests that retention of the left turn from Wisely Lane would result in a significantly greater number of accidents than would arise from the additional mileage due to alternative routing of RHS traffic to and from the A3 south via junction 10.
2.13.21	Applicant and SCC	Given the predicted traffic flows through Ripley associated with the Proposed Development, as set out in REP1-010, what implications might there be for the accident rate for the B2215 through Ripley	Analysis of the predicted changes in the number of accidents on the affected road network due to the Scheme using COBA-LT are presented in Section 4.4 of the Transport Assessment Report [APP-136]. This indicates that the Scheme will reduce the overall number of accidents at Junction 10 by 30% and by 6% over the rest of the affected road network, in addition to the reduction of accidents at junction 10. The accident rate for the B2215 Portsmouth Road thorough Ripley, in terms of accidents per million vehicle kilometres, is the same in both the do-minimum and do-something scenarios, as the physical attributes of the road are unchanged. Accident analysis using COBA-LT indicates that the increase in traffic along the B2215 Portsmouth Road due to the Scheme would, therefore, potentially result in a small increase of approximately one additional accident every two years (0.5 accidents per year) on this section of the local road network compared to without

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
			the Scheme. This is more than off-set by overall predicted reduction in the number of accidents across the affected road network due to the Scheme.
2.13.22	Applicant	On the approach to the Ockham Park junction via the proposed Wisley Lane diversion what directional signage would be available to drivers travelling in the direction of Guildford or further south and using the A3 corridor?	On the approach to Ockham Park Junction on Wisley Lane Diversion an advance direction sign would indicate 'London' and 'Guildford' traffic to take the 3rd exit on Ockham Park junction to the A3 northbound carriageway. Typically, a ground mounted sign on the Wisley Lane Diversion would be as indicated below:  Whilst not relevant for the journey from RHS Wisley, ground mounted signs on the A3 would show a flower on a brown background for directions to RHS Wisley Gardens, typically as shown below: 

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
			Directions signs on the A3 northbound carriageway on overhead gantries between Ockham Park Junction and M25 junction 10 would indicate 'Guildford and RHS Wisley' traffic to exit at M25 junction 10. Typically, the gantry sign would be as indicated below.Directions signs on the A3 northbound carriageway on overhead gantries between Ockham Park Junction and M25 junction 10 would indicate 'Guildford and RHS Wisley' traffic to exit at M25 junction 10. Typically, the gantry sign would be as indicated below.  A ground mounted sign on the A3 northbound approaching junction 10 would indicate traffic for Guildford and RHS Wisley to U-turn to return on the A3 southbound carriageway as shown below.

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
			 Directions signs on the A3 southbound carriageway on overhead gantries between M25 Junction 10 and Ockham Park junction would indicate Guildford traffic to continue south and RHS Wisley traffic to exit at Ockham Park junction. Typically, the gantry sign would be as indicated below. 

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
2.13.23	RHS	a) Please explain how the projected increases in visitor numbers referred to in Table 1 in the note prepared by Hatch Regeneris [REP1-039] have been calculated, as it appears that for each year after 2018 a figure of the order of 70,500 has simply been added year on year between 2018 to 2024. b) In calculating anticipated visitor growth should any allowance be made for the potential for a busier/more crowded attraction acting as a deterrent to visitors? If so what allowance for that has been included in the projections for visitor growth referred to in REP1-039? c) What allowance has been made for increases in road traffic and possible delays, and therefore potential deterrence to people visiting RHS Wisley, in the absence of the Proposed Development?	a) RHS to respond b) RHS to respond c) See response to 2.13.26 below.
2.13.26	Applicant	Given the projected growth in visitor numbers at RHS Wisley, what would be the anticipated driver delay and economic impact upon the Garden's operation in the absence of any changes to M25 J10 and the A3 between the Ockham Park junction and the Painshill junction.	Comparing inter-peak return journey times to and from RHS Wisley in the 2015 Base year with those for the 2022 Do-minimum indicates that on average they would be very similar, increasing by up to half a minute. This is because traffic congestion during the inter-peak period is not forecast to significantly worsen in the future. Journey times from RHS Wisley during the evening peak period are forecast to increase by an average of less than half a minute between the 2015 base and 2022 without the DCO Scheme, but up to four and a half minutes between the 2015 base and 2037 without the DCO Scheme due to additional traffic causing increased traffic congestion and delay at junction 10. As mentioned above approximately one third of visitors leave in this period.

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
			Although Highways England does not accept that there would be the economic impact on account of the Scheme claimed by RHS in the Hatch Regeneris report [REP1-039], or indeed any adverse economic impact on RHS as a result of the scheme, Highways England appreciates that RHS consider that increases in journey times to and from the garden would have a negative economic impact upon the garden's operation.
2.13.27	Applicant and RHS	In terms of any effects on visitor numbers at RHS Wisley during the construction period for the Proposed Development, is it appropriate to use the reductions in visitors numbers that have arisen while on-site works have been undertaken at the gardens as a sensitivity measure for any 'extended impacts' that there might be on visitors numbers were the Proposed Development to be consented and implemented, as referred to in paragraph 3.14 of REP1-039?	It is not appropriate to use the reduction in visitor numbers during the construction works in the Garden as a measure for the impact of the construction period for the Proposed Scheme. The construction works on account of their visual and other impacts in the gardens is likely to have affected visitors' enjoyment of the gardens and is likely to have had a much greater influence on their decision about whether to visit the Gardens or not, than construction works on the road network. During construction of the Proposed Scheme, as described in Environmental Statement (Chapters 1-4) [APP-049], para 2.7.8, three narrow lanes with a 50 mph speed limit will be maintained in each direction of the A3 and therefore current traffic capacity will be maintained. The impact on potential visitor's journey times to the Garden would therefore be minimal.
2.13.28	Applicant	Does the first paragraph in the response to the first written question 1.13.15 [page 111 of REP2-013] state what you intended to say, given that reference is being made to RHS Wisley traffic U-turning at J10 and making use of Old Lane?	The Applicant's response to question 1.13.15 of REP2-013 should read as follows: *In the 2037 'Do-minimum' scenario approximately 750 vehicles per day generated by RHS Wisley are predicted in the modelling to U-turn at junction 10 to head south on the A3. In the 2037 Do-something scenario, no vehicles generated by RHS Wisley are predicted in the modelling to U-turn at junction 10, since the route to and from the A3 south will be shorter and quicker via Ripley than via junction 10.* *In the 2037 Do-minimum scenario no vehicles generated by the redevelopment*

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
			of Wisley Airfield are predicted to U-turn at junction 10. This is because forecast congestion at J10 without the Scheme means that the quickest route from the A3 south is via Ripley, rather than via junction 10. In the 2037 'Do-something' scenario, approximately 110 vehicles a day generated by the redevelopment of the Wisley Airfield are predicted to U-turn at Junction 10 to access the site via Old Lane. *Plots of the distribution of RHS Wisley Gardens traffic taken from the strategic model for the different scenarios are provided in Section 2 of the Transport Assessment Supplementary Information Report [REP2-011].* The reference in the original first paragraph to the Wisley Airfield development and Old Lane was in error.
2.13.29	Applicant, SCC, WPIL and RHS	In submitting your respective updated SoCG at Deadline 5 (D5) please ensure that the following matters are addressed in those SoCGs:	This is noted by Highways England.
		a) Confirmation as to whether the base year (2015) traffic flows identified by the Applicant in the submitted application documentation for the B2215 (Portsmouth Road/Ripley High Street), Newark Lane and Rose Lane are or are not agreed.	The 2015 base flows data have not been agreed, please refer to issue 2.5.2 of the Statement of Common Ground between Highways England and Surrey County Council 9.37 Statement of Common Ground with Surrey County Council (Rev 1)) bring submitted at Deadline 5.
		b) Assuming the Proposed Development were to be consented and implemented, confirmation as to whether the predicted AM peak, Inter-peak and PM peak hour traffic flows for the Do-minimum and Do-something scenarios in 2022 and 2037	Please refer to the updated Statement of Common Ground between Highways England and Surrey County Council which is being submitted at Deadline 5.

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
		identified by the Applicant in the submitted application documentation are or are not agreed.	
		c) Confirmation as to whether any of the B2215's links between its junctions with the A3 and A247 and the B2215's junctions with Newark Lane and Rose Lane are or are not currently operating at capacity.	The capacity of the links along the B2215 Portsmouth Road will be determined by the capacities of the junctions along it, specifically the junctions with the A247 Send roundabout, the off-set crossroads with Newark Lane/Rose Lane and the approach to the Ockham roundabout. An approach to a junction is generally considered to be approaching practical operational capacity when demand exceeds 85% of available capacity and likely to be exceeding practical capacity when demand exceeds 90% of available capacity. The Applicant's local junction traffic modelling for the 2015 Base scenario demonstrates that all these junctions currently operate within practical capacity with a maximum demand to capacity ratio of 69% on the B2215 northbound approach to the Ockham Park roundabout during the morning peak hour. This data is presented in Section 3 of 'Supporting data in response to ExA's Second Written Questions on Traffic, Transport & Road Safety', ref: TR010030/EXAM/9.72, submitted alongside this document at Deadline 5.
		d) For any link or junction referred to in c) above for which it is predicted that the capacity will be exceeded in the future (ie post-dating the operation of the Proposed Development should it receive consent), please provide an indication when it is expected the capacity of the link or junction would be exceeded and what the reason for the capacity exceedance would be.	The operational performance of the junctions of the B2215 Portsmouth Road with Newark Lane/Rose Lane and with the Ockham roundabout in both 2022 and 2037 with and without the Scheme is set out in Sections 7.5 and 7.6 and Appendices G and H of the Transport Assessment Report [APP-136]. Table 7-10 of the TA shows that the Newark Lane/Rose Lane junction, overall, remains generally within practical capacity during peak periods both with and without the Scheme in 2022 and 2037, with overall demand to capacity ratios of less than 90%. This is except for the AM peak period without the Scheme in 2022 when the overall maximum demand to capacity ratio is 95%, which is

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
			considered above practical capacity. This is due to forecast traffic growth through Ripley, both general growth and that from proposed Local Plan developments. Tables G-54 to G-60, Appendix G of the TA, shows that the B2215 Portsmouth Road approach to the Ockham roundabout also generally remains within capacity during peak periods both with and without the Scheme in 2022 and 2037, with overall demand to capacity ratios of less than 80%. North-facing slip roads at Burnt Common would also significantly reduce the traffic flow on the B2215 through Ripley, were they to be implemented to mitigate the impact on Ripley of the developments envisaged in the Guildford Local Plan, including the proposed Wisley Airfield development.
		You are reminded in addressing the above listed matters in the SoCG that for any matter that is not agreed a full explanation for why there is disagreement shall be provided.	Noted. The SoCG will include a full explanation as to why there is disagreement where matters are not agreed.
2.13.30	Applicant and SCC	With respect to the proposed alterations to Elm Lane at its junction with Old Lane:	
		a) What would be the relevant visibility splay requirement for this junction for speed limits of 30 mph or 40 mph?	The junction desirable minimum visibility splay requirement for a speed limit for 30 mph (48 kph) and design speed of 60 kph is 90 m. One step below desirable minimum is 70 m. The junction desirable minimum visibility splay requirement for a speed limit 40 mph (64 kph) and design speed of 70 kph is 120 m. One step below desirable minimum is 90 m.
		b) Allowing for any tree removal that might be	It would not be possible to provide visibility splays looking left at this junction

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
		necessary, the geometry of Old Lane in the vicinity of its junction with Elm Lane and the extent of the land subject to the originally submitted application for the Proposed Development, ie land within the red line area appertaining to land plots 24/4 and 24/4a shown on sheet 24 of AS-002, what visibility splays could be provided on either side of Elm Lane's junction with Old Lane?	within the red line boundary (corrected position) as currently drawn in accordance with DMRB standard CD123 (TR0130030/EXAM/Volume 9.67). It is possible to provide the full visibility splay looking right at his junction. The visibility splays either side of Elm Lane's junction with Old Lane outside the corrected red line boundary are as follows: The visibility splays either side of Elm Lane's junction with Old Lane outside the corrected red line boundary are as follows: The visibility splays in accordance with CD123 either side of Elm Lane's junction with Old Lane inside the corrected red line boundary are as follows: • From the junction looking right – 120 m • From the junction looking left to the offside of Old Lane – 70 m (two steps below desirable). Note the junction design was undertaken to DMRB standard TD42/95 which has since been superseded by CD123. The criteria for junction visibility has been amended in CD123 where the desirable viewing point has been changed from a 9m offset from the give way line in TD42/95 to 2.4m in CD123. The 120m visibility to the left of Elm Lane is not now achieved inside the DCO boundary. Note the red line (DCO) boundary on Old Lane eastbound side is to be corrected to match the existing highway boundary as identified by Topographical Survey, approximately 1 m from the edge of carriageway due to an error in the Ordnance Survey mapping.
		c) Drawing HE551522-ATK-HGN-XX-SK-CH-000036 within Appendix A of REP4-006 shows visibility splays drawn to accord with DMRB CD109 and CD123 standards inclusive of some	The current forward visibility on Old Lane is restricted by the verge vegetation with a maximum visibility distance to the Elm Lane junction of approximately 30 to 40m. To achieve DMRB desirable forward visibility of 120 m the splay would extend

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
		vegetation clearance. To achieve the DMRB standards would the required vegetation clearance shown on drawing HE551522-ATK-HGN-XX-SK-CH000036 be within or extend beyond the red line areas for land plots 24/4 and 24/4a shown on sheet 24 of AS-002?	beyond the red line areas. Discussion is ongoing with SCC on the extent of vegetation clearance. Refer also to response to 2.13.30 d) below. To achieve the DMRB forward visibility standards in CD109, the required vegetation clearance shown on drawing HE551522-ATK-HGN-XX-SK-CH000036 would extend beyond the red line areas for land plots 24/4 and 24/4a shown on sheet 24 of Land Plans (Revision 1) [AS-002].
		d) If visibility splays of the relevant standard would be unachievable within the extent of land plots 24/4 and 24/4a, what measures would need to be implemented to ensure that drivers emerging from Elm Lane or approaching this junction would be provided with adequate levels of forward visibility?	The measures needed to provide adequate levels of visibility would be vegetation clearance up to the desirable splay lines. If a reduced speed limit of 30 mph were implemented and a departure from standard for reduced visibility were approved, vegetation clearance to a splay line one or two steps below desirable minimum could be achieved. In both cases Highways England acknowledges that either the red line boundary needs to be adjusted by way of a non-material change or the matter dealt with by a side agreement. Otherwise it may be possible to deal with the matter by use of signs and or queue detection measures.
2.13.31	Applicant	Please set out your current position regarding the payment of commuted sums for the longterm maintenance burden that SCC considers would be placed on its resources as a result of the Proposed Development.	Highways England's current position in respect of the payment of commuted sums to SCC is set out in the response to ExA2Q 2.13.33 below and under issue 1.5.3 of the SoCG between Highways England and SCC (9.37 Statement of Common Ground with Surrey County Council (Rev 1) which is being submitted at Deadline 5).
2.13.32	Applicant	Please provide an update on the discussions regarding provisions for the resurfacing of Seven Hills Road (south) that is referenced in the SoCGs with SCC [REP3-012] and	As set out under issue 2.12.3 of the SoCG between Highways England and Surrey County Council (9.37 Statement of Common Ground with Surrey County Council (Rev 1)) that is being submitted at Deadline 5, no agreement has been

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
		EBC [REP3-010].	reached on this matter. Highways England has confirmed that it will resurface Seven Hills Road (south) for that section of road that is currently closed (namely to the east of the Hilton Hotel entrance). For the section of Seven Hills Road between the Hilton Hotel entrance and the A245 Byfleet Road, Highways England considers the existing surface of this road to be suitable.
2.13.33	Applicant and SCC	Reference Number 1.5.1 of your most recent SoCG [REP3-012] indicates that a position statement on the legally binding side agreement as regards highways matters will be provided at Deadline 5. At a minimum please ensure that the position statement for the side agreement includes the heads of terms for the matters to be covered in the agreement. Please confirm that the aforementioned side agreement will be executed prior to the close of the Examination and if not then explain what alternative measures will be undertaken.	Highways England and Surrey County Council are negotiating a side agreement covering the following matters: 1. Detailed design input – a mechanism whereby SCC is consulted on the detailed design at an early stage; 2. Works to the local highway network – the provision of detailed information to SCC prior to commencement of works that will interfere with the local highway network; 3. Traffic regulation and management – a mechanism to reach agreement to co-ordinate traffic signals; 4. Inspections and testing of materials – a mechanism under which SCC is to inspect and test materials; 5. Road safety audits – a mechanism whereby road safety audits affecting the local highway network are provided to SCC; 6. Defects – a mechanism to require Highways England to make good any defects in the works; 7. Provisional certificate – upon completion of a section of works to SCC's satisfaction, a provisional certificate it to be issued; 8. Maintenance – Highways England to be responsible for maintaining the works during the maintenance period; 9. Final certificate – mechanism for SCC to adopt the works to the local

Question Number	Question to:	Question	Highways England Response
13. Traffic, transport and road safety			
			highway network following the maintenance period. Highways England and SCC are also discussing issues related to Ripley, commuted sums and the possibility of Highways England undertaking or paying for certain works in relation to the Ockham Bites Car Park. Highways England is working with SCC with a view to ensuring that the side agreement is executed prior to the close of the examination, but in the event this is not achieved, Highways England is likely to include protective provisions in the dDCO for SCC as the local highway authority. The status of discussions on this side agreement is summarised under issue 1.5.1 of the SoCG between Highways England and Surrey County Council (9.37 Statement of Common Ground with Surrey County Council (Rev 1)) being submitted at Deadline 5.
2.13.35	SCC	Having regard to what has been said about bus stop provision at the Ockham Park junction and RHS Wisley in the Local Impact Report [paragraph 7.6.6 of REP2-047], please explain why there would be a need to provide pedestrian access to RHS Wisley from the Ockham Park junction bus stop to walk to and from RHS Wisley, given the proposed installation of the turnaround at the RHS Wisley?	The Applicant does not consider it necessary to provide a pedestrian access to RHS Wisley from the Ockham Park junction bus stop, given the proposed installation of the bus stop and turnaround at RHS Wisley Garden. However, some RHS staff may prefer to use the staff entrance off Mill Lane, so the Scheme does include pedestrian access to Mill Lane from the bus stop provision at Ockham Park junction.

Question Number	Question to:	Question	Highways England Response
14. Waste management			
No questions regarding Waste Management were raised within the Examining Authority's Second Written Questions			

Question Number	Question to:	Question	Highways England Response
15. Content of the draft Development Consent Order (dDCO)			
2.15.1	Applicant	In regard to the 'Other relevant works' that refer to 'further development within the Order limits' as listed from (a) to (q) on pages 51 and 52 of the dDCO [REP2-002] please clarify the following:	
		• Please justify why some or all of these are not contained within the Works that are specifically listed in Schedule 1 of the dDCO;	The approach taken in the dDCO [REP2-002] in terms of the description of the works, and the level of detail provided, is consistent with a long line of DCOs (and Transport & Works Act Orders) which have had to strike an appropriate balance between scheme detail and scheme flexibility, and it is appropriate for a scheme of this size, scale, and location. The level of detail provided is consistent with the public interest in ensuring that a DCO provides a comprehensive suite of powers, with sufficient flexibility in how the powers are described, to enable a major infrastructure scheme to be delivered expeditiously and (in the case of public works) at best value to the public purse. In terms of definition and scope, the 'lettered works' of further development works are listed in Schedule 1 and support, and are ancillary to, the carrying out of the numbered works and are not give rise to any materially new or materially different environmental effects to those assessed in the environmental statement. They must relate to the numbered works, since they must be: "*In connection with the construction of any of those works*", as set out in the paragraph preceding the list of ancillary works in Schedule 1.
		• Explain the differences between these 'Other relevant works' and those that are specifically listed in Work No. 1 to Work No. 65. For example, Work No. 53 lists seven ordinary watercourse diversions,	In preparing the list of numbered works at Schedule 1 of the dDCO [REP2-002], the Applicant has sought to identify all of the principal works which form part of the Scheme. In doing so, and in common with the convention of other made DCOs, the Applicant has had to strike an appropriate balance between,

Question Number	Question to:	Question	Highways England Response
15. Content of the draft Development Consent Order (dDCO)			
		but (j) also refers to 'works to alter the course of, or otherwise interfere with a watercourse, including private water supplies.';	on the one hand, the need to provide sufficient clarity and detail as to the principal works which form part of the authorised development, and on the other hand, the need for a proportionate degree of flexibility appropriate to a scheme (such as this one) which is at a preliminary design stage and for which it is not possible to identify with complete precision every single minor piece of work which may be required following detailed design. On that basis, and in common with other made DCOs, 'lettered works' have been included following the list of numbered works at schedule 1 to ensure that the dDCO will provide a comprehensive suite of powers, with sufficient flexibility in how the powers are described, to enable the Scheme to be implemented expeditiously. In relation to ordinary watercourses as cited in the ExA's example, Highways England has identified at Work No. 53 the diversion of seven ordinary watercourses as being necessary in connection with the implementation of the Scheme. However, as an 'ordinary watercourse' may in practice amount to little more than a small ditch, it would not be proportionate for a DCO promoter to be expected to identify every such watercourse which may be affected by a scheme and to make specific provision for each of them. Accordingly, the use of 'lettered works' such as lettered work (j) provides an appropriate degree of flexibility in the event that works to other ordinary watercourses may be necessary as a result of detailed design. This approach is well-precedented in made DCOs, c.f. lettered work (g) of schedule 1 to the The A19/A184 Testo's Junction Alteration Development Consent Order 2018, lettered work (h) of schedule 1 to the A14 Cambridge to Huntingdon Improvement Scheme Development Consent Order 2016.

Question Number	Question to:	Question	Highways England Response
15. Content of the draft Development Consent Order (dDCO)			
		• Explain whether/how these 'Other relevant works' are accounted for on the plans you have submitted, for example the Works Plans;	Article 6 (Limits of Deviation) of the dDCO [REP2-002] confirms that the authorised development must be constructed within the Order limits. Any further development work whilst not in every instance specifically shown on the Works Plans would also be expected to be in the same general location as the numbered work to which it relates.
		• Please confirm whether or not all the potential effects of all the other relevant works that are described in (a) to (q) (for example means of access, tree felling, new and replacement highway lighting) have been assessed in the Environmental Statement and in the Habitats Regulations Assessment;	All works forming part of the Scheme have been assessed in the Environmental Statement and in the Habitats Regulations Assessment.
		• Explain how these 'other relevant works' would be covered within the wording of the Requirements of the dDCO, for example, are these matters specifically covered in the Outline CEMP, LEMP and SPA MMP?	As explained above, given that the 'other relevant works' relate to the numbered works by virtue of being "in connection with the construction of any of those works", any of the "other relevant works" would be covered under the numbered Work to which they would relate, within the dDCO [REP2-002].
2.15.2	Applicant	Please justify why the site compounds/construction compounds have not been allocated specific Works numbers on the Works Plans [APP-007] and are not specifically defined in either Part 1(2) 'Interpretation' or Schedule 2 Part 1(1) 'Interpretation' of the dDCO [REP2002].	It is not necessary to give specific Work numbers to the temporary construction compounds which are necessary to support the construction and implementation of the Scheme. The approach to identifying and describing works in Schedule 1 of the dDCO [REP2-002], including the approach to describing temporary construction compounds and material storage areas reflects the practice from other made Development Consent Orders (and indeed Transport and Works Act Orders). The 'authorised development' for which development consent is granted under Article 4 of the dDCO is that development which is described in Schedule 1.

Question Number	Question to:	Question	Highways England Response
15. Content of the draft Development Consent Order (dDCO)			
			The 'authorised development' therefore includes works compounds referred to in (o) of the 'Other relevant works' in Schedule 1. Furthermore, under Requirement 5, subject to the environmental envelope, the authorised development must be designed in detail and carried out so that it is compatible with the preliminary scheme shown on, among other plans, the Scheme Layout Plans. The main construction compound (Nutberry Fruit Farm) is shown on Sheet 1 of the Temporary Works Plans [APP-015]. The construction compound on Cockcrow Hill is shown on Sheet 3 of the Temporary Works Plans. The construction compound at Breach Hill Wood is shown on Sheet 3 of the Temporary Works Plans. The construction compound on the site of the former San Domenico hotel is shown on Sheet 4 of the Temporary Works Plans. The dDCO includes the power to take temporary possession of the land on which the proposed construction compounds are to be situated. The power to take temporary possession of land may only be exercised for the relevant purpose as follows:

Plot	Area	Purpose for which temporary possession of land may be taken under dDCO
1/6	Nutberry Fruit Farm	The provision of the main site compound to include, but not limited to, site offices, welfare facilities,

Question Number	Question to:	Question	Highways England Response
15. Content of the draft Development Consent Order (dDCO)			

		parking provisions, storage of plant and materials.
4/88	Cockcrow Hill	Provision of site compound
7/6	Former San Domenico hotel	Provision of site compound
13/9	Breach Hill Wood construction compound	Provision of site compound

The Scheme also includes the provision of worksites for specific structures at Wisley Lane (shown on Sheet 2 of the Temporary Works Plans [APP-015]), Cockcrow Hill (shown on Sheet 3), Redhill Road (shown on Sheet 3), and Clearmount (shown on Sheet 5), and as follows:

Plot	**Area**	**Purpose for which temporary possession of land may be taken under dDCO**
2/1	Wisley Lane structures worksite	Topsoil and materials storage and structures worksite.
4/69	Cockcrow structures worksite	For the provision of a structures worksite

Question Number	Question to:	Question	Highways England Response
15. Content of the draft Development Consent Order (dDCO)			

6/5	Redhill Road structures worksite	For the provision of a structures worksite
11/4 (part)	Clearmount structures worksite	For the provision of a structures worksite

The Scheme also includes the provision of topsoil and materials storage areas at Wisley Airfield (shown on Sheet 2 of the Temporary Works Plans), Sandpit Hill (shown on Sheet 3), New Farm and the Cobham Hilton Hotel (shown on Sheet 4), Deers Farm and Buxton Wood (shown on Sheet 5), and as follows:

Plot	**Area**	**Purpose for which temporary possession of land may be taken under dDCO**
2/1 (part), 2/2, 2/3, 2/4	Wisley Airfield	Topsoil and materials storage and structures worksite.
5/1 (part)	Sandpit Hill	Provision of topsoil storage
7/12	New Farm	Provision of topsoil and materials storage
7/22	Cobham Hilton	Provision of topsoil and materials storage.

Question Number	Question to:	Question	Highways England Response
15. Content of the draft Development Consent Order (dDCO)			
			<table><tr><td>11/3</td><td>Deers Farm</td><td>Provision of topsoil and materials storage.</td></tr><tr><td>11/4 (part)</td><td>Buxton Wood</td><td>Provision of topsoil and materials storage.</td></tr></table> Accordingly, there is no need to identify the construction compounds or storage areas as numbered works as the dDCO as they form part of the 'authorised development' which is subject to the requirements and the relevant land parcels are clearly identified within Schedule 7.
2.15.3	Applicant	Having regard to National Grid Electricity Transmission PLC (NGET) written representation [REP1-015] would there be adequate protective provisions for NGET Tower ZM023 given that part of its foundations potentially fall within land outside the dDCO's limits?	Yes, paragraph 9 of the protective provisions for electricity undertakers in the dDCO [REP2-002] provide that Highways England must submit a plan of works to be executed in, on or under any land purchased, held, appropriated or used under the Order that are near to, or will or may affect, any apparatus that is not being removed. This provision would therefore potentially apply to the part of Tower ZM023 which is outside the Order limits. The works may only be executed in accordance with that plan and any reasonable requirements submitted by NGET for the protection of the apparatus or securing access to it. NGET would be entitled to inspect the execution of those works.
2.15.4	Applicant	Further to your response to the ExA's first written question 1.4.8 [REP2-013] please provide a specific reference to the SPA Management and Monitoring Plan in Requirement 8 of the dDCO, or justify why this is not required.	The SPA Management and Monitoring Plan [AS-015] is an appendix to the Environmental Statement and so is already incorporated within Requirement 8 which requires the Scheme to be approved by the Secretary of State under that requirement to reflect the mitigation measures set out in the Environmental Statement.

Question Number	Question to:	Question	Highways England Response
15. Content of the draft Development Consent Order (dDCO)			
2.15.6	Applicant	Work No. 35(b) of the dDCO [REP2-002] defines the parameters of the replacement Cockcrow bridleway overbridge as *"…comprising a two-span structure approximately 68 metres in length and incorporating a 10 metres wide soft verge wildlife crossing, as shown on Sheet 4 of the Works Plans".* However, you state that any proposed green corridor element for the Cockcrow bridge is not yet guaranteed as it would be subject to a bid for additional funding [footnote 14 of APP-052]. Consequently, please indicate how you have accounted for such funding not being forthcoming and how a bridge without any soft verge wildlife crossing has been assessed in the submitted application documents and has been accounted for in the wording of the dDCO.	As explained at footnote 14 in section 7.4.20 of Chapter 7: Biodiversity of the Environmental Statement [APP-052], the proposed green bridge at Cockcrow is subject to designated funds being obtained and furthermore is not necessary mitigation for the effects of the Scheme. As is made clear in Requirement 9(3), notwithstanding the description of Work No. 35 (b) as including a green element, the Secretary of State may, under Requirement 9, authorise the undertaker to construct the replacement Cockcrow overbridge without a green verge element.

Question Number	Question to:	Question	Highways England Response
16. Compulsory Acquisition (CA)			
2.16.1	Applicant	Would the provision of enhanced SPA land at a ratio of 3:1 to address permanent and temporary land take associated with the NSIP scheme's implementation and the associated intended compulsory acquisition of land amount to a '… compelling case in the public interest for the land to acquired compulsorily' (Section 122 of the PA2008)?	The Special Protection Area (SPA) Enhancement Areas will be undertaken using temporary possession powers along with the compulsory acquisition of rights in land of entry for Highways England to ensure that these works can be carried out and managed satisfactorily, such that the intentions as set out in the Habitats Regulations Assessment (HRA) will be achieved. Therefore, there is no proposal to acquire the title to this land. The appropriate ratios for the suite of compensatory measures were determined based on consideration of existing Scheme examples and under consultation with Natural England, the RSPB and Surrey Wildlife Trust (as recorded in the meeting minutes for 28 June 2018 in Habitats Regulations Assessment Annex B [APP-041]). A provision of a ratio of 3:1 for the SPA enhancement areas, coupled with 1:1 SPA compensation land outside the existing SPA, was agreed by all parties, and is intended to ensure with confidence that the negative effects of the Scheme on the SPA are offset. This approach aligns with the European Commission (2007) Guidance document on Article 6(4)[9] of the '*Habitats Directive*' 92/43/EEC which states *"There is wide acknowledgement that compensation ratios should be well above 1:1"*. Therefore, the Applicant is confident that the appropriate ratios have been applied to the suite of compensatory measures. The works to the enhancement areas are considered as an integral component of the package of compensation measures for the SPA and, therefore, there is a 'compelling case' for the compulsory acquisition of these rights.

[9] European Commission (2007) Guidance document on Article 6(4) is available to read in full at https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/new_guidance_art6_4_en.pdf

Question Number	Question to:	Question	Highways England Response
16. Compulsory Acquisition (CA)			
2.16.2	Applicant	Further to the submission of the Schedule of Statutory Undertakers Representations with regard to S138 [REP3-006] in response to the ExA's First Written Question 1.16.6 the Applicant is requested to ensure that when this document is submitted at future deadlines the entries in the final column 'Protective Provisions' correspond with the relevant undertaker because it appears from the entry for Sky Telecommunications onwards the comments concerning protective provisions do not correspond with the relevant undertaker.	The latest version of the S138 document was submitted at D4 [REP4-002] and was correctly formatted.
2.16.3	Applicant	Please provide the date by which consent will have been obtained for the acquisition for each of the plots of Crown Land identified in Part 4 of the Book of Reference [APP-025].	In relation to plots 1/14, 1/15, 1/18, 1/18a, 1/21, 1/22, as shown on the Land Plans [AS-002], Highways England is continuing discussions with the agent appointed by DEFRA and it is hoped that a certificate of consent from DEFRA will be obtained as early as practicable. We anticipate that this will be provided before the Compulsory Acquisition Hearing on 24 March 2020. Highways England has also been engaging with HM Land Registry to update the title register in respect of those plots still shown as being within the Secretary of State for Transport's ownership (plots 1/13, 8/28, 8/29, 8/34). The Highways England department overseeing the registrations anticipates this work to be completed prior to the end of April 2020.
2.16.4	Applicant and SCC	Please provide the date by which you will have concluded the exchange of Common Land and Replacement Land arising from the original construction of the M25 and associated alteration to the A3 covered by Compulsory Purchase Orders dating back to 1979 and 1982. SCC please additionally advise when you expect the associated amendments to the Common Land register will have been completed.	As explained in the Applicant's response to the ExA's first written question 1.16.15 [REP2-013], discussions with Surrey County Council regarding the outstanding transfer of special category and exchange land is still ongoing. As noted in the Applicant's response to ExA's first written question 1.16.16 [REP2-013], it is not necessary (although desirable for reasons of administrative practicality) for this outstanding matter to be resolved within the examination period. This is because the Applicant has treated the

Question Number	Question to:	Question	Highways England Response
16. Compulsory Acquisition (CA)			
			affected exchange land as if it were special category land, which it currently is in any event by virtue of being open to public recreation. Moreover, the Applicant has not sought compulsory acquisition powers over the areas of registered common land which fall within the mainline M25 carriageway. Accordingly, in respect of that land the Secretary of State is not asked to consider whether to authorise the compulsory acquisition of common land.
2.16.6	Applicant and WPIL	Reference is made in the Deadline 3 draft SoCG [REP3-014] to various matters that are not currently agreed being addressed through the conclusion of a side agreement between the Applicant and WPIL. Please provide a position statement for the side agreement that has been referred to. The position statement should include, as a minimum, the heads of terms for the matters to be covered in the agreement. Please confirm that the aforementioned side agreement will be executed prior to the close of the Examination and if not then explain what alternative measures will be undertaken.	The Draft Statement of Common Ground with Wisley Property Investments Limited [REP3-014] referred to explains the anticipated content of the proposed side agreement in a fair amount of detail and is the most useful reference for the ExA at this time. Following discussions and meetings over a long period, draft heads of terms were provided to WPIL by the Applicant on 31 December 2019, which was then discussed at a meeting in January 2020, and broadly agreed upon. Since this meeting, WPIL have been unable to continue engagement due to unforeseen circumstances, and as such matters have not further progressed, despite the Applicant's attempts to contact the company. The Applicant cannot confirm that a side agreement with WPIL will be completed before the close of the Examination as this is not a matter wholly with its control. This nonetheless remains the Applicant's aim. The lack of any response from WPIL on the heads of terms or any other matters since a meeting in early January makes it less likely than it otherwise would have been that the agreement will be made within the Examination period. Whilst the Applicant wishes to co-operate with WPIL, if a side agreement is not reached with WPIL then the Applicant would proceed under the powers in the DCO, were it to be made. The Applicant is not dependent upon an agreement with WPIL in order to deliver the DCO Scheme, much as the

Question Number	Question to:	Question	Highways England Response
16. Compulsory Acquisition (CA)			
			Applicant wishes to co-operate with WPIL as regards both schemes. WPIL would, of course, be entitled to compensation under the compensation code in respect of the DCO Scheme. The end of the Examination period would not necessarily indicate the end of discussions between the Applicant and WPIL about the interaction between the two schemes.

Printed on paper from well-managed forests and other controlled sources.

Registered office Bridge House, 1 Walnut Tree Close, Guildford GU1 4LZ
Highways England Company Limited registered in England and Wales number 09346363