

M20 Junction 10a

TR010006

Response to Examining Authority's Second Written Questions

ExA Question 2.01(i)



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Second Written Questions
ExA Question 2.01(i)**

**Planning Act 2008
Infrastructure Planning (Applications: Prescribed Forms
and Procedure)
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1. ExA Question 2.01(i)

Table 16.1: Summary of all Environmental Effects

Description of effect	Main/ Alternative	Adverse/ beneficial	Construction/ operation	Temporary/ Long term	Mitigation requirements	Significance of residual effect after mitigation	How are the relevant mitigation measures secured?
Chapter 5: Air Quality							
Fumes or emissions which may impact upon air quality	Main and Alternative	Negligible	Construction	Temporary	<ul style="list-style-type: none"> Avoid double handling of materials. Minimise height of stockpiles and profile to minimise wind-blown dust emissions and risk of pile collapse. Locate stockpiles out of the wind (or cover, seed or fence) to minimise the potential for dust generation. Ensure that all vehicles with open loads of potential dusty materials are securely sheeted or enclosed. Provide a means of removing mud and other debris from wheels and chassis of vehicles leaving the site. This may involve a simple coarse gravel running surface or jet wash, or in the case of a heavily used exit point, wheel washers. Maintain a low speed limit on site to prevent the generation of dust by fast moving vehicles. Damp down surfaces in dry conditions. Water should be sprayed during cutting / grinding operations (i.e. cutting curb slabs). All vehicle engines and plant motors shall be switched off when not in use. No incorporated mitigation measures are included in the design for local air quality during operation 	Not significant	Requirement 3 of the draft DCO.
	Main and Alternative.	Negligible.	Operation.	Long-term.	Not applicable.	Not significant.	Not applicable.
Chapter 6: Cultural Heritage							
Effect on Historic Buildings							
Adverse effects on the setting of Grade I Listed St Marys Church at Sevington. Effects from elements of the proposed link road and A2070 junction would be visible from the asset. The proposed link road would form a new visual barrier in	Main and Alternative.	Adverse.	Construction and Operation.	Temporary and long term.	<p>Construction:</p> <ul style="list-style-type: none"> Acoustic barriers. Screening and dormouse habitat creation planting. The use of footbridge handrail lighting and bollard lighting on the slip road. Landscape planting to reduce the visual 	<p>Moderate/ Large Adverse (Construction) temporary.</p> <p>Slight/ Moderate Adverse (Operation) long term.</p>	Requirements 3, 4, 5 and 11 of the draft DCO.

Description of effect	Main/ Alternative	Adverse/ beneficial	Construction/ operation	Temporary/ Long term	Mitigation requirements	Significance of residual effect after mitigation	How are the relevant mitigation measures secured?
the north and north east of the asset.					impact on the setting of St Marys Church. • A temporary at-grade crossing during construction to allow pedestrian links to St Marys Church to be retained. Operation: • Screening planting to reduce visual intrusion on St Marys Church and Court Lodge. • Pedestrian and road links to St Marys Church to be retained.		
Associated core of Sevington comprising the Grade II Listed Court Lodge and barn. Effects from noise and light intrusion.	Main and Alternative.	Adverse.	Construction.	Temporary.	Construction and reinstatement mitigation measures would be applied, as detailed in the CEMP and design, including screening planting which would reduce the visual light intrusion from the current baseline by Year 15, and changes to noise levels due to the reduced speed limit on the A2070.	Slight to Moderate/ Large (Temporary).	Requirements 3, 4, 5 and 11 of the draft DCO.
Grade II Listed Ransley Cottage, Redbur and Redbur Barn. Effects from the partial removal of treeline opposite the cottage and visibility of the A2070 footbridge.	Main and Alternative.	Adverse.	Construction.	Temporary and Long term.	Construction: • Noise barriers. • Screening and dormouse habitat creation planting. • The use of footbridge handrail lighting and bollard lighting on the sliproad.	Moderate/ Large Adverse (Temporary). Slight Adverse (Longer term).	Requirements 3, 4, 5 and 11 of the draft DCO.
Effects on Archaeological Remains							
The removal of undated archaeological remains identified within the footprint of the Schemes as well as the potential to remove remains associated with the medieval occupation of Sevington and any other unknown remains.	Main and Alternative.	Adverse.	Construction.	Long term.	A programme of archaeological works would be implemented to investigate, analyse, report and archive these assets.	Moderate/ Slight (Permanent effect) Adverse.	Requirements 3 and 8 of the draft DCO.
Chapter 7: Landscape							
Visual Impact							
During construction, associated construction infrastructure and vehicles would create adverse visual impacts. During operation, the introduction of a new link road and roundabout and associated gantries, noise barriers and environmental bunds, signage and lighting would result in adverse visual impacts.	Main and Alternative.	Adverse.	Construction and Operation.	Temporary/ Short term/ Long term.	Construction: • Keeping a well-managed and tidy site including compound areas. • Ensuring materials are delivered on an as and when basis to avoid unnecessary stockpiles, would also help to reduce construction impacts. • Temporary offices and welfare facilities within site compounds would be of a recessive colour to blend in with the local surroundings.	Construction (Temporary): • 10 receptors would experience a Large Adverse significant effect. • 6 receptors would experience a Moderate Adverse significant effect. Year 1 (Short term): • 2 receptors would experience a Large Adverse effect. • 10 receptors would experience a	Requirements 3, 4, 5 and 11 of the draft DCO.

Description of effect	Main/ Alternative	Adverse/ beneficial	Construction/ operation	Temporary/ Long term	Mitigation requirements	Significance of residual effect after mitigation	How are the relevant mitigation measures secured?
					<ul style="list-style-type: none"> Lighting would be kept to a minimum with options for infrared lighting or timers explored for compounds where practicable. <p>Operation: Establish mitigation planting by Year 15 as the planting would have matured to aid the integration and screening of the Main and Alternative Schemes from the surrounding area.</p>	<p>Moderate Adverse effect.</p> <p>Year 15 (Longer term):</p> <ul style="list-style-type: none"> 1 receptor would experience a Moderate Adverse effect (Visual Receptor No. 5: View from A20/ PRow AE175 looking onto Willesborough Garden Centre). 	
Landscape Character							
Of the 6 Landscape Character Areas (LCAs) identified, only 1 LCA (LCA 3 Mersham Farmlands) would experience significant adverse effects during construction and significant effects in Year 1 for both schemes.	Main and Alternative.	Adverse.	Construction and Operation.	Temporary (Short-term).	<p>Construction: As outlined under 'Visual Impact' above.</p> <p>Operation: Landscape mitigation measures would help integrate the A2070 link road within its surroundings and reduce its prominence within the LCA. These include:</p> <ul style="list-style-type: none"> A buffer of native trees and shrubs. Standard trees and swathes of species rich grassland. Ornamental planting along the south eastern edge of Ashford. <p>Whilst the mitigation planting may have limited effect in Year 1, over time the planting would establish to soften its presence within the landscape.</p>	<p>Large Adverse effect (Temporary during construction).</p> <p>Moderate Adverse (Short-term).</p>	Requirements 3, 4, 5 and 11 of the draft DCO.
Chapter 8: Nature Conservation							
Designated sites							
Activities which may impact upon Hatch Park SSSI.	Main and Alternative.	Negligible.	Construction.	Temporary.	Refer to DCO Document 6.1, Chapter 8, Section 8.7.	Neutral.	Requirements 3, 4, 7 and 9 of the draft DCO.
	Main and Alternative.	Negligible.	Operation.	Long-term/ Permanent.		Slight Adverse (local scale).	Not applicable.
Activities which may impact upon Ashford Green Corridor.	Main and Alternative.	Negligible.	Construction.	Temporary.		Neutral.	Requirements 3, 4, 7 and 9 of the draft DCO. Protected species licences. Schedule 8, Part 4, Protective Provisions.
	Main and Alternative.	Negligible.	Operation.	Long-term/ Permanent.		Neutral.	Requirements 4, 5, 11 and 12 of the draft DCO. Schedule 8, Part 4, Protective Provisions.

Description of effect	Main/ Alternative	Adverse/ beneficial	Construction/ operation	Temporary/ Long term	Mitigation requirements	Significance of residual effect after mitigation	How are the relevant mitigation measures secured?
Activities which may impact upon Highfield Lane RNR.	Main and Alternative.	Adverse.	Construction.	Temporary.		Slight Adverse.	Requirements 3 and 9 of the draft DCO. Protected species licences.
	Main and Alternative.	Adverse.	Operation.	Long-term/ Permanent.		Slight Beneficial.	Requirements 4, 5 and 11 of the draft DCO.
Habitats							
Activities which may impact upon Hedgerow Habitat.	Main and Alternative.	Adverse.	Construction.	Temporary.		Slight Adverse (national level).	Requirements 3 and 9 of the draft DCO. Protected species licences.
	Main and Alternative.	Adverse.	Operation.	Long-term/ Permanent.		Slight Beneficial.	Requirements 4, 5 and 11 of the draft DCO.
Activities which may impact upon Running Water/Aylesford Stream.	Main and Alternative.	Negligible.	Construction.	Temporary.		Neutral (county level).	Requirements 3, 7, 9 and 12 of the draft DCO. Schedule 8, Part 4, Protective Provisions.
	Main and Alternative.	Negligible.	Operation.	Long-term/ Permanent.		Slight Beneficial.	Requirements 5, 11 and 12 of the draft DCO. Schedule 8, Part 4, Protective Provisions.
Activities which may impact upon Broadleaved Semi-Natural Woodland.	Main and Alternative.	Adverse.	Construction.	Temporary.	Refer to DCO Document 6.1, Chapter 8, Section 8.7.	Neutral (county level).	Requirement 3 and 9 of the draft DCO. Protected species licences.
	Main and Alternative.	Negligible.	Operation.	Long-term/ Permanent.		Slight Beneficial.	Requirements 4, 5 and 11 of the draft DCO.
Activities which may impact upon Scattered trees, scrub, Broadleaved and Mixed Plantation Woodland; Poor semi-improved neutral grassland.	Main and Alternative.	Adverse.	Construction.	Temporary.		Neutral (local level).	Requirement 3 and 9 of the draft DCO. Protected species licences.
	Main and Alternative.	Negligible.	Operation.	Long-term/ Permanent.		Slight Beneficial.	Requirements 4, 5 and 11 of the draft DCO.
Species							
Activities which may impact upon Badgers.	Main and Alternative.	Adverse.	Construction.	Short-term.	Refer to DCO Document 6.1, Chapter 8, Section 8.7.	Minor adverse (local level).	Requirements 3 and 9 of the draft DCO. Protected species licences.
	Main and Alternative.	Beneficial.	Operation.	Long-term/ Permanent.		Slight Beneficial (local level).	Requirements 4, 5 and 11 of the draft DCO.

Description of effect	Main/ Alternative	Adverse/ beneficial	Construction/ operation	Temporary/ Long term	Mitigation requirements	Significance of residual effect after mitigation	How are the relevant mitigation measures secured?	
Activities which may impact upon Bats.	Main and Alternative.	Adverse.	Construction.	Short-term.		Slight Adverse (local level).	Requirements 3 and 9 of the draft DCO. Protected species licences.	
	Main and Alternative.	Adverse.	Operation.	Long-term/ Permanent.		Slight Beneficial.	Requirements 4, 5 and 11 of the draft DCO.	
Activities which may impact upon Birds.	Main and Alternative.	Adverse.	Construction.	Short-term.		Slight Adverse (local level).	Requirements 3 and 9 of the draft DCO.	
	Main and Alternative.	Adverse.	Operation.	Long-term/ Permanent.		Slight Beneficial (local level).	Requirements 4, 5 and 11 of the draft DCO.	
Activities which may impact upon Dormouse.	Main and Alternative.	Adverse.	Construction.	Short-term.		Slight Adverse (local level).	Requirements 3 and 9 of the draft DCO. Protected species licences.	
	Main and Alternative.	Adverse.	Operation.	Long-term/ Permanent.		Slight Beneficial (local level).	Requirements 4, 5 and 11 of the draft DCO.	
Activities which may impact upon Great Crested Newts.	Main and Alternative.	Negligible.	Construction.	Short-term.		Neutral (local level).	Requirements 3, 9 and 12 of the draft DCO. Protected species licences.	
	Main and Alternative.	Adverse.	Operation.	Long-term.		Slight Beneficial (local level).	Requirements 4, 5 and 11 of the draft DCO.	
Activities which may impact upon Reptiles.	Main and Alternative.	Adverse.	Construction.	Short-term.		Slight Adverse (local level).	Requirements 3 and 9 of the draft DCO. Protected species licences.	
	Main and Alternative.	Adverse.	Operation.	Long-term.		Slight Beneficial.	Requirements 4, 5 and 11 of the draft DCO.	
Activities which may impact upon Riparian Mammals.	Main and Alternative.	Negligible.	Construction.	Short-term.		Neutral.	Requirements 3, 9 and 12 of the draft DCO. Protected species licences. Schedule 8, Part 4, Protective Provisions.	
	Main and Alternative.	Adverse.	Operation.	Long-term.		Slight Beneficial.	Requirements 4, 5 and 11 of the draft DCO. Schedule 8, Part 4, Protective Provisions.	
Chapter 9: Geology and Soils								
Soils								

Description of effect	Main/ Alternative	Adverse/ beneficial	Construction/ operation	Temporary/ Long term	Mitigation requirements	Significance of residual effect after mitigation	How are the relevant mitigation measures secured?
Removal, deterioration, digging.	Main and Alternative.	Adverse.	Construction.	Temporary/ Permanent.	Refer to DCO Document 6.1, Chapter 9, Section 9.7. Refer to DCO Document 6.1, Chapter 9, Table 9.7.	Slight Adverse.	Requirements 3 and 7 of the draft DCO.
Material in excess suitable for reuse.	Main and Alternative.	Adverse.	Construction.	Temporary.		Slight Beneficial.	Requirements 3 and 4 of the draft DCO.
Contamination.	Main and Alternative.	Adverse.	Construction.	Temporary.		Slight Adverse/Neutral.	Requirements 3 and 7 of the draft DCO. Schedule 8, Part 4, Protective Provisions.
	Main and Alternative.	Adverse.	Operation.	Temporary/ Short- term/ Long-term.		Refer to DCO Document 6.1, Chapter 9, Section 9.7. Refer to DCO Document 6.1, Chapter 14, Section 14.7 and Table 14.5	No significant effect.
Geology							
Permanent removal of geological strata during excavation of deeper areas of the Scheme.	Main and Alternative.	Adverse.	Construction.	Permanent.	Refer to DCO Document 6.1, Chapter 9, Section 9.7.	Neutral.	Not applicable.
Sterilisation of mineral assets or disposal of naturally occurring resources.	Main and Alternative.	Adverse.	Construction.	Permanent.	Refer to DCO Document 6.1, Chapter 9, Table 9.7.	Slight Adverse/Neutral.	Requirement 3 of the draft DCO.
Groundwater							
Pollution of Principal Aquifers in bedrock and Secondary A Aquifers in superficial deposits.	Main and Alternative.	Adverse.	Construction.	Temporary.	Refer to DCO Document 6.1, Chapter 9, Section 9.7. Refer to DCO Document 6.1, Chapter 9, Table 9.7.	Slight Adverse.	Requirements 3, 7 and 12 of the draft DCO. Schedule 8, Part 4, Protective Provisions.
Surface water							
Pollution of Aylesford stream and other small water bodies.	Main and Alternative.	Adverse.	Construction.	Temporary.	Refer to DCO Document 6.1, Chapter 9, Section 9.7. Refer to DCO Document 6.1, Chapter 9, Table 9.7.	Slight Adverse.	Requirements 3 and 12 of the draft DCO. Schedule 8, Part 4, Protective Provisions.
Human health							
Harm to human health - Construction and maintenance workers	Main and Alternative.	Adverse.	Construction.	Temporary.	Refer to DCO Document 6.1, Chapter 9, Section 9.7.	Slight Adverse.	Requirements 3 and 7 of the draft DCO.
Harm to human health - Future site users and local residents	Main and Alternative.	Adverse.	Construction.	Temporary/ Short- term.	Refer to DCO Document 6.1, Chapter 9, Table 9.7.	Neutral.	Requirements 3 and 7 of the draft DCO.
Buildings, Structures and Utilities							
Contamination.	Main and Alternative.	Adverse.	Construction.	Temporary.	Refer to DCO Document 6.1, Chapter 9, Section 9.7. Refer to DCO Document 6.1, Chapter 9, Table 9.7.	Neutral.	Requirements 3 and 7 of the draft DCO.
Flora							

Description of effect	Main/ Alternative	Adverse/ beneficial	Construction/ operation	Temporary/ Long term	Mitigation requirements	Significance of residual effect after mitigation	How are the relevant mitigation measures secured?
Impairment of landscape screening and grass development.	Main and Alternative.	Adverse.	Construction.	Temporary.	Refer to DCO Document 6.1, Chapter 9, Section 9.7. Refer to DCO Document 6.1, Chapter 9, Table 9.7.	Neutral.	Requirements 3, 4 and 7 of the draft DCO.
Chapter 10: Materials							
Site remediation / preparation / earthworks							
Vegetation clearance resulting in waste arising.	Main and Alternative.	Adverse.	Construction.	Temporary.	Refer to DCO Document 6.1, Chapter 10, Section 10.7 and Table 10.10.	Neutral/ Slight adverse	Requirements 3 and 4 of the draft DCO.
Soil waste arisings from site clearance.	Main and Alternative.	Adverse.	Construction.	Temporary.		Moderate adverse	Requirement 3 of the draft DCO.
Inert waste arisings.	Main and Alternative.	Adverse.	Construction.	Temporary.		Slight adverse	Requirement 3 of the draft DCO.
Demolition and excavation							
Storage of waste on-site for on-site reuse or off-site treatment resulting in lowering the requirement for landfill.	Main and Alternative.	Adverse.	Construction.	Temporary.	Refer to DCO Document 6.1, Chapter 10, Section 10.7 and Table 10.10.	Neutral / slight adverse	Requirement 3 of the draft DCO.
Landfill waste resulting in a reduction in the remaining available landfill capacity and not reducing, reusing or recycling the waste.	Main and Alternative.	Adverse.	Construction.	Temporary/Permanent.		Neutral / slight adverse	Requirement 3 of the draft DCO.
Use of imported aggregates from quarries resulting in the depletion of finite resources (note: primary aggregate would only be used if site won materials are not suitable).	Main and Alternative.	Adverse.	Construction.	Permanent.		Slight / moderate adverse	Requirement 3 of the draft DCO.
Construction							
Use of new materials (e.g. borrow pits) resulting in environmental impacts associated with on-site excavation activities.	Main and Alternative.	Adverse.	Construction.	Permanent.	Refer to DCO Document 6.1, Chapter 10, Section 10.7 and Table 10.10.	Neutral / slight adverse	Requirements 3 and 11 of the draft DCO.
Use of imported materials (e.g. blacktop, sub base, steel, concrete).	Main and Alternative.	Adverse.	Construction.	Permanent.		Slight/Moderate Adverse.	Requirements 3 and 11 of the draft DCO.
Storage of potential waste on-site for on-site reuse or off-site treatment resulting in lowering the requirement for landfill.	Main and Alternative.	Adverse.	Construction.	Temporary.		Neutral / slight adverse	Requirement 3 of the draft DCO.
Sending the waste to landfill results in a reduction in the remaining available landfill capacity and not reusing or recycling the waste.	Main and Alternative.	Adverse.	Construction.	Temporary/Permanent.		Slight adverse	Requirement 3 of the draft DCO.
Carbon calculation							

Description of effect	Main/ Alternative	Adverse/ beneficial	Construction/ operation	Temporary/ Long term	Mitigation requirements	Significance of residual effect after mitigation	How are the relevant mitigation measures secured?
Greenhouse gas emissions: total 7,365 CO ₂ e/tonnes.	Main.	Adverse.	Construction.	Temporary.	Refer to DCO Document 6.1, Chapter 10, Section 10.7 and Table 10.10.	No significant effect.	Requirements 3, 10 and 11 of the draft DCO.
Greenhouse gas emissions: total 7,623 CO ₂ e/tonnes.	Alternative.	Adverse.	Construction.	Temporary.	Refer to DCO Document 6.1, Chapter 10, Section 10.7 and Table 10.10.	No significant effect.	Requirements 3, 10 and 11 of the draft DCO.
Chapter 11: Noise and Vibration							
Construction noise and vibration.	Main and Alternative.	Adverse.	Construction.	Temporary.	<ul style="list-style-type: none"> Control at source: shielding of noisy items of plant, appropriate siting of haul routes. Control by specification of construction methodology. Control by modification of plant. Enclosures. Use and siting of equipment. Maintenance. Screening – early construction of bunds, appropriate site layout – removal of direct line of sight; strategic placement of material. Control by specification of noise limits, monitoring as a means to ensure compliance. 	No significant effect.	Requirements 3 and 10 of the draft DCO.
Operational noise.	Main and Alternative.	Adverse and beneficial.	Operation.	Temporary (short-term, long-term) and Permanent.	<ul style="list-style-type: none"> Thin surface course for all new road surfacing, with the exception of the A20, where at the request of the Local Authority this will remain hot rolled asphalt. Acoustic bund 2m high adjacent to the new link road in the vicinity of Sevington Church. Acoustic bund 2m high to the rear of Summerhill Place, adjacent to the eastbound off slip. Acoustic barrier at Kingsford Street, part of which has been defined as a Noise Important Area. The barrier would follow the alignment of the M20 at the top of the cutting slopes for optimum performance. At the eastern end the barrier would terminate approximately where access to the new overbridge commences. At the western end, the barrier would follow the boundary of the property known as Highfield for a short distance. Owing to the need to provide pedestrian access there would be a small gap in the barrier in the vicinity of Lagonda Lodge - this would be offset by a small length of overlap barrier on the southeast boundary of the re-aligned Kingsford Street which would ensure continuity of screening against noise. 	No significant effect.	Requirements 3, 6 and 11 of the draft DCO.

Description of effect	Main/ Alternative	Adverse/ beneficial	Construction/ operation	Temporary/ Long term	Mitigation requirements	Significance of residual effect after mitigation	How are the relevant mitigation measures secured?
					<ul style="list-style-type: none"> A 3m height barrier would ensure no properties are at or above SOAEL and would be reasonably cost-effective. This may be optimised at detailed design to include elements of 2m height at either end of the extents. 		
Chapter 12: Effects on All Travellers							
During construction, adverse effects as a result of the Schemes have been predicted for NMUs, with temporary closures and diversions put in place.	Main and Alternative.	Adverse.	Construction.	Temporary.	Refer to DCO Document 6.1, Chapter 12, Section 12.7	Slight Adverse	Requirements 3 and 10 of the draft DCO.
During construction, the temporary presence of TM for the Schemes is likely to result in Driver Stress amongst vehicle travellers along a number of roads within the study area.	Main and Alternative.	Adverse.	Construction.	Temporary.	Refer to DCO Document 6.1, Chapter 12, Section 12.7	Slight Adverse.	Requirements 3 and 10 of the draft DCO.
During operation, the Schemes would result in the closure of PRoWs, with Church Road Footbridge removed and replaced, Highfield Lane Bridge (identified as an NMU desire line) removed with Kingsford Lane Footbridge to be installed to the east of the new Junction 10a.	Main and Alternative.	Adverse.	Operation.	Long term.	Refer to DCO Document 6.1, Chapter 12, Section 12.7	Neutral.	Requirement 11 of the draft DCO. Schedule 3, Part 8, Footpaths, Cycle Tracks and Footways.
During operation, the Schemes are not predicted to substantially alter Driver Stress levels amongst vehicle travellers.	Main and Alternative.	Adverse.	Operation.	Long term.	Not applicable.	Neutral.	Requirement 11 of the draft DCO.
Chapter 13: Community and Private Assets							
Private Assets							
Land take of 6.731ha of private land along A2070 Bad Munstereifel Road during the construction of the A2070 link road.	Main and Alternative.	Adverse.	Construction.	Temporary		Significant.	Requirement 11 of the draft DCO. Appropriate financial compensation through the compensation code.
Land take of 2.69ha of private land along A2070 Bad Munstereifel Road during the construction of the A2070 link road.	Main and Alternative.	Adverse.	Construction.	Permanent.	Refer to DCO Document 6.1, Chapter 12, Section 13.7	Not significant.	Requirement 11 of the draft DCO. Appropriate financial compensation through the compensation code.
Land take of 0.492 ha of private residential/ farmland	Main and Alternative.	Adverse.	Construction.	Permanent.		Significant.	Requirement 11 of the draft DCO. Appropriate financial

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on Highfield Lane as a result of the A2070 link road.							compensation through the compensation code.
The construction of the new M20 Junction 10a eastbound off slip would require the demolition of and land take from 2 businesses - Wyevale Garden Centre and Sweatman Mowers.	Main and Alternative.	Adverse.	Construction.	Permanent.		Significant.	Requirement 11 of the draft DCO. Appropriate financial compensation through the compensation code.
Demolition of Highfield bungalow	Main and Alternative.	Adverse.	Construction.	Permanent.		Significant.	Requirement 11 of the draft DCO. Appropriate financial compensation through the compensation code.
Community Land							
Land designated as Open Space used by the community (temporary land take required 0.1588ha)	Main and Alternative.	Adverse.	Construction.	Temporary.	Replacement Area of Open Space proposed, as described in DCO Document 4.1, Statement of Reasons, and DCO Document 2.12, Special Category Land Plan.	Significant.	Article 36 of the draft DCO.
Land designated as open space used by the community (permanent land take required 0.1738ha)	Main and Alternative.	Adverse.	Construction and Operation.	Long term.	Replacement Area of Open Space proposed, as described in DCO Document 4.1, Statement of Reasons, and DCO Document 2.12, Special Category Land Plan.	Significant.	Draft DCO Part 5, Supplemental Powers, Article 36.
Development Land							
The Schemes include unlocking and supporting the development of nearby development land.	Main and Alternative.	Neutral.	Construction.	Long term.	Not applicable.	Neutral.	Not applicable.
The Main Scheme would unlock the designated development sites U19 Sevington and U14 Land at Willesborough Lees. The Scheme would also facilitate access to existing land uses, which may in turn unlock potential growth of the allocated development sites to the south of Ashford.	Main and Alternative.	Beneficial.	Operation.	Long term.	Not applicable.	Significant Beneficial.	Not applicable.
Agricultural Land							
The area of temporary land acquisition would include 7.19ha of agricultural land, required during construction, of which 5ha is BMV land.	Main and Alternative.	Adverse	Construction.	Temporary.	Agricultural land temporarily required will be restored following construction.	Not significant.	Draft DCO Part 5, Supplemental Powers, Article 31.
The area of permanent land acquisition would include 19ha of agricultural land, of which 18.39ha is BMV land.	Main and Alternative.	Adverse	Construction and Operation.	Permanent.	Not applicable.	Not significant.	Not applicable.
Individual Farm Businesses							

Description of effect	Main/ Alternative	Adverse/ beneficial	Construction/ operation	Temporary/ Long term	Mitigation requirements	Significance of residual effect after mitigation	How are the relevant mitigation measures secured?
Effects of the Schemes on individual farm businesses (farm ID numbers 01-08 inclusive except farm number 04) during the construction and operation phases.	Main and Alternative.	Adverse	Construction and Operation.	Temporary and Permanent.	Land temporarily required will be restored following construction.	Not significant.	Requirement 11 of the draft DCO. Appropriate financial compensation through the compensation code.
Effects of the Schemes on farm ID number 04 during the construction and operation phases.	Main and Alternative.	Adverse	Construction and Operation.	Temporary and Permanent.	Land temporarily required will be restored following construction.	Large adverse.	Requirement 11 of the draft DCO. Appropriate financial compensation through the compensation code.
Community Severance							
Adverse effects on community severance during the construction phase including the closure and reconstruction of the Church Road footbridge and construction traffic effects.	Main and Alternative.	Adverse.	Construction.	Temporary/ Long-term/ Permanent.	Refer to DCO Document 6.1, Chapter 13, Section 13.7.	Slight adverse.	Requirements 3 and 10 of the draft DCO.
Effects on community severance during the operation phase including replacement Church Road footbridge, shared use pedestrian and cycle bridge over M20 at Kingsford Street and various new pedestrian and cycle access provision.	Main and Alternative.	Beneficial.	Operation.	Temporary/ Long-term/ Permanent.	Not applicable.	Slight beneficial.	Requirement 11 of the draft DCO. Draft DCO Part 3, Streets, Article 12.
Economic Development							
It is estimated that the Main Scheme will bring forward sufficient economic development to support 2,050 net additional jobs, creating an estimated additional £1.5 billion GVA over the course of the appraisal period (with benefits being enhanced under the Alternative Scheme).	Main and Alternative.	Beneficial.	Operation.	Long term.	Not applicable.	Significant beneficial.	Not applicable.
Chapter 14: Road Drainage and the Water Environment							
Flood Risk and Drainage							
Increased fluvial flood risk. Runoff from new roads would be attenuated up to the 100 year plus 30% climate change storm event (where possible) at the agreed greenfield runoff rate of 4l/s/ha south of the M20 and 2l/s/ha north of the M20. A	Main and Alternative.	Beneficial.	Operation.	Long term.	Refer to DCO Document 6.1, Section 14.7.	Slight/Moderate beneficial.	Requirements 11 and 12 of the draft DCO.

Description of effect	Main/ Alternative	Adverse/ beneficial	Construction/ operation	Temporary/ Long term	Mitigation requirements	Significance of residual effect after mitigation	How are the relevant mitigation measures secured?
sensitivity test has been carried out for a 40% climate change allowance, which has demonstrated that these additional flows could also be accommodated within the proposed attenuation ponds.							
Surface Water							
Polluted run-off during construction	Main and Alternative.	Negligible/Adverse.	Construction.	Temporary.	Refer to DCO Document 6.1, Chapter 14, Section 14.7 and Table 14.5.	Neutral.	Requirements 3, 7 and 12 of the draft DCO.
Polluted run-off during operation	Main and Alternative.	Negligible/Adverse.	Operation.	Permanent.	Refer to DCO Document 6.1, Chapter 14, Section 14.7 and Table 14.5.	Neutral.	Requirements 11 and 12 of the draft DCO.
Groundwater							
Activities which may impact upon groundwater (including contamination).	Main and Alternative.	Negligible.	Construction.	Temporary.	Refer to DCO Document 6.1, Chapter 14, Section 14.7 and Table 14.5.	Neutral.	Requirements 3, 7 and 12 of the draft DCO.
	Main and Alternative.	Negligible.	Operation.	Permanent.		Neutral.	Requirements 11 and 12 of the draft DCO.
Chapter 15: Combined and cumulative							
Combined effects during construction (interrelationship between different environmental factors affected by the M20 Junction 10a Schemes).	Main and Alternative.	Adverse.	Construction.	Temporary and Permanent.	Refer to DCO Document 6.1, Chapters 5 to 14.	Slight to Moderate adverse.	As above.
Combined effects during operation (interrelationship between different environmental factors affected by the M20 Junction 10a Schemes).	Main and Alternative.	Adverse.	Operation.	Permanent.		Slight adverse.	As above.
Cumulative effects during construction (effects from the M20 Junction 10a Schemes in combination with other projects).	Main and Alternative.	Adverse.	Construction.	Temporary and Permanent.		Slight adverse.	As above.
Cumulative effects during operation (effects from the M20 Junction 10a Schemes in combination with other projects).	Main and Alternative.	Adverse.	Operation.	Permanent.		Neutral	As above.